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The Internationalization of Yen and Key Currency Questions

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Abstract

The role of the yen in the international financial system is reconsidered from a comparative (historical) approach. Compared with the D-Mark in the postwar years, the limited use of the yen results not so much from regulations on capital movements as from the structure and behavior of Japanese economy. The history of the pound-sterling and the U.S. dollar reveals the fact that such factors as the network of foreign trade and economic size constitute the basis and "inertia" of a key-currency. Thus for a currency to rise to a key-position in global transactions, real factors are more decisive than financial market arrangement. Seen from the foreign economic relations, it is not possible for Japan to own a key-currency independent from the U.S. dollar.

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Summary

Recently, the tripolar currency system of the U.S. dollar, deutsche mark, and the yen has been discussed as an alternative to the system based solely on the dollar. Compared with the deutsche mark, however, the yen plays a limited role as a reserve and trade currency in the international financial system. What is the reason for this? Should it be corrected?

These questions are reconsidered in this paper by using a comparative (historical) approach. The paper stresses real factors such as foreign economic relations and economic size, rather than financial factors, in particular deregulation.

The deutsche mark has taken the leading role in intra-European transactions, although the German authorities have repeatedly introduced restrictions on international capital movements. In the 1980s, Japanese financial markets were no less liberalized than those of Germany. The limited use of the yen results not so much from financial regulations as from the structure and behavior of Japanese economy.

The history of the pound sterling and the U.S. dollar reveals the fact that, despite restrictions on international finance, each currency maintained its position owing to the network of foreign trade, the size of the domestic import market, and its competitiveness. These real factors constitute safety basis for the scale economy and "inertia."

If yen transactions are to grow independently from the dollar, they are likely to do so in trade with East Asian countries. Despite growing capital transactions with Japan and the yen's influence on the exchange rate policy in this region, the dollar is still more widely used by these countries because, generally speaking, they depend more on the U.S. than on the Japanese market. This is further evidence that the size of the U.S. economy supports the key position of the dollar.

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I. Introduction

More than ten years have passed since the early 1980s, when American deficits in her current account of the balance of payments extended to such an extent that the instability of the dollar became a focus of attention among international financial experts. The tripolar currency system of the dollar, the D-Mark and yen has been discussed as an alternative to the system based solely on the U.S. dollar. While not a few international economist admire international policy coordinations of the Plaza and the Louvre as important steps towards a future international monetary system, the actual result is to make up for the U.S. policy failure by other developed countries, in particular Germany and Japan ^{1/}. This fact implies rather that other currencies cannot take place of the dollar in the current world economy as before.

Whereas the D-Mark is in fact playing the key currency role in the European Community, the international position of yen is far smaller than Japan's economic scale. What is the reason for this? Is it to be corrected? If yes, what sort of policy is desirable?

The last question is related to another, with which country in a key position the international financial system is more easily stabilized. The conditions, under which a certain currency functions as a key currency, and the problems concerning internationalization of yen have been discussed in many ways ^{2/}. The contribution of this paper to the above questions would be, if any, the stress on real rather than financial factors, applying, so to speak, a comparative historical approach of key currencies.

The following section 2 compares current status of yen with those of the D-Mark, which leads to the fact that the low position of the yen results not so much from financial regulations as from the structure and behavior of Japanese economy. In the section 3, the history of the pound sterling and the U.S. dollar reveals the conditions for a key currency and basis of the "inertia" that sustains the position of a key currency even long after its conditions disappear, with a stress on real factors such as foreign trade and economic size. Section 4 reviews the international monetary system and the role of the key-currency country (key country) in general, and considers possibilities for further internationalization of yen.

^{1/} For my assessment of the international policy coordination, see Iwami (1993b).

^{2/} For the latter problems, see followings among others, Hamada and Horiuchi (1987), Kawai (1992), Tavlas and Ozeki (1992), Frankel (1992) and Ito (1993).

II. Current Situation Compared with the D-Mark

What does the internationalization of yen mean? Are there any characteristics in its internationalization compared with other currencies? In discussing the extent of internationalization, economists usually compare yen with the dollar. However, since the dollar has been keeping the status of the key currency (reserve currency) for a long time in the postwar years, it is natural for yen to remain in the secondary place, say as an invoicing currency for trade as well as for financial transaction. More interesting would be the comparison with the D-Mark, which would constitute the similar position in the coming tripolar monetary system.

Table 1 reveals following characteristics. Firstly, yen-denominated import, despite recent growing tendency, remains still on a smaller level than export. And the yen share in the world trade is much smaller than the Japanese share itself. Secondly, in the financial transactions, yen share in international banking loans and in issues of eurobonds as well as international bonds expanded remarkably in the mid-1980s, over the Japanese share in the world trade. In eurodeposits and official international reserves, on the other hand, yen remained still on a lower level. Particularly, share in eurodeposits is much smaller, while official reserves reached, in the mid-1980s, nearly the same level as Japan's trade share. In short, the extent of internationalization is quite unbalanced, different according to its use.

Table 2 shows corresponding aspects of the D-Mark. Firstly the share in trade is far larger than yen, about 80 percent in German export and about a half in her import, while in the world trade, the D-mark stays at a little bit higher position than German trade share. Secondly, shares in eurodeposits and official reserves stay higher than trade share, while in international banking loan and bond issues, it remains lower, which is the opposite to the yen. The financial transactions showed great fluctuation in the late 1980s, when the yen share in bond issues overtook the D-Mark. As for international lending, it is noteworthy that yen share decreased considerably in 1990, to the lower level than the D-Mark.

In summary, both the yen and the D-Mark show different extent of internationalization in each function of the international currency, but the D-Mark keeps stronger position in trade, while yen increased its share in financial transactions in the late-1980s. Rapid decrease in international lending thereafter and the low level in official reserves and in world trade suggest the limited internationalization of yen. The fact that financial transactions expanded more remarkably world-wide than real transactions in a last few decades, may imply the significance of the financial elements. But as the rapid decrease of yen share in international lending suggests, "internationalization of a currency" led by financial transactions seems to stand on an unstable basis. The lower share of yen in official reserves may be related to this fact. For the yen in particular, real factors is very important, as the following section considers.

Table 1. Internationalization of Yen (Percent)

| Year | 1977 | 1980 | 1985 | 1987 | 1991 |
|--------------------------------------|------|------|------|------|--------|
| Share in trade | | | | | |
| Japanese export | 18.8 | 29.4 | 35.8 | 33.4 | 39.4 |
| Japanese import | 1.2 | 2.4 | 7.3 | 10.6 | 15.6 |
| World trade | --- | 2.0 | --- | 3.5 | --- |
| Eurodeposits | 0.6 | 1.1 | 2.5 | 4.3 | 4.8 |
| International bank-lending | n.a. | 1.1* | 18.5 | 10.8 | 1.8** |
| Eurobond issues | 0.6 | 1.0 | 5.0 | 16.0 | 16.0 |
| International bond issues | 4.3 | 4.9 | 9.1 | 13.7 | 13.3** |
| Official reserves | 2.4 | 4.5 | 8.0 | 7.5 | 9.1** |
| Share in world trade (export+import) | 7.3 | 7.2 | 8.6 | 7.9 | 7.9** |

Note: *1981, **1990. International bond issues are sum of euro-yen bond and foreign bond issues in Japan.

Source: MOF, Annual Report of the IFB, BOJ, International Statistics, etc.

2.1 Real transactions

As is well known, the use of yen in foreign trade is very much affected by the composition of traded goods and partner regions or countries 1/. The lower share in import side reflects a large share of primary products denominated in dollars, for example petroleum. The dollar is preferred in exports with North America, or dollar area in general. Exports of machine and equipments, such as vessels, motors, automobiles, TV set and VTR, are likely to be denominated in yen 2/, since Japan is the major supplier of those products in the world trade. Trade in yen implies to shift exchange risks onto the trade partners, and thus the competitiveness in foreign trade influences the selection of trade currency. As for European countries, export in their own currencies is larger than the import 3/.

However, around 1980, while the share of own currencies was 80-60 percent in exports of West Germany, France and Britain, its share in their import was ca. 40 percent. The larger share of own currencies in imports compared with Japan results from the intra-EC trade and import of primary products from former colonies. In Japanese trade, even competitive goods are apt to be exported in dollars to the North America, thus lowering own currency share in exports. Because firstly, the United States have stronger bargaining power as a largest buyer of Japanese goods, and secondly Japanese exporters prefer dollars, in order to avoid damaging effects of yen-appreciation on market shares, naturally at the cost of profit margins 4/.

The higher position of the D-Mark as a trade currency is based mainly on the competitiveness of German exports, such traditionally competitive goods as machinery in general, automobiles, chemicals, and electric machine. Since capital transactions were liberalized as early as in 1958, earlier than any other European countries, the trade finance facilities may have stimulated trade in the D-Mark. But from the early 1960s on, the German monetary authorities introduced measures to regulate capital transactions (see for example, Bundesbank, 1985, p. 18), as the current account surplus and price stabilization generated expectation to revaluation of the D-Mark. This is a factor to restrain trade in the D-Mark rather than to promote it.

1/ *Annual Report of the IFB of MOF*, 1986, p. 49., Hamada and Horiuchi (1987, pp. 171-74), and Tavlas and Ozeki (1992).

2/ Yen share for those products is relatively low when exported to the United States, and the highest when exported to Asian countries. Ito (1993, Table 3). This fact implies that the influence of export competitiveness is different, according to trade partners.

3/ Tavlas and Ozeki (1992, pp. 4-5) attributes this fact, applying McKinnon (1979), to the monopolistic power of the industrial countries in their exports.

4/ Osugi (1990, pp. 46-48), Tavlas and Ozeki (1992, pp. 14-15). Marston (1991) gives evidence for the "pricing to market" behavior of Japanese exporters.

Table 2. Internationalization of D-Mark (Percent)

| Year | 1977 | 1980 | 1985 | 1987 | 1991 |
|----------------------------|-------|-------|------|------|---------|
| Share in trade | | | | | |
| German export | 87.0* | 82.5 | 79.5 | 81.5 | 77.0*** |
| German import | 42.0* | 43.0 | 47.8 | 52.7 | 54.3*** |
| World trade | --- | 10.2 | --- | 12.4 | --- |
| Eurodeposits | 16.8 | 15.7 | 10.0 | 13.0 | 14.7 |
| International bank-lending | n.a. | 1.6** | 2.1 | 2.4 | 5.7*** |
| Eurobond issues | 26.7 | 19.1 | 7.0 | 11.0 | 8.0 |
| International bond issues | 14.4 | 11.2 | 8.5 | 8.0 | 7.4*** |
| Official reserves | 9.1 | 14.9 | 15.2 | 14.4 | 19.7*** |
| Share in world | 10.2 | 9.8 | 9.2 | 11.0 | 11.3*** |

Note: *1976, **1981, ***1990.

Source: MOF, *Annual Report of the IFB*, BOJ, *International Statistics*, Tavlas(1991), Tavlas and Ozeki(1992). BIS, *Annual Report*, Deutsche Bundesbank (1991b), etc.

Germany trades with the United States far less than within the EC (Table 3). Recently, the two thirds of German exports to the United States consist of the D-Mark and a third in dollars, while three quarters of exports to the EC countries are traded in D-Mark. This is a reflection of the stronger bargaining power of the United States. Moreover, there is not a symmetry of a currency in the EC trade. From the intra-european trade data of the 1960s and 1970s, Page (1981, p. 65) stressed a "major" role of the D-Mark. In the 1980s as well, the share of D-Mark in German import increased, despite the rise in trade with other EC countries. Since the energy (petroleum) import is denominated in dollars, the decreasing energy import raised the D-Mark share 1/.

The trade between the United States and Japan, on the other hand, shows mutual dependence. For the United States, Japan is the second largest export market after Canada, and as large a import-goods supplier as Canada. For Japan, about one third of export goes to and a quarter of import comes from the United States, which is the largest single country in both cases (Table 3). But the United States is on a stronger position, because firstly, the U.S. share for Japan is larger than the Japanese share for the United States, and secondly, Japanese imports from the United States consist of indispensable goods such as agricultural products and raw materials 2/. In addition to the "vehicle currency" function of the dollar, the Japanese dependence on the United States renders the trade in yen more difficult. Compared with this, the financial elements discussed below belong to rather minor factors.

2.2 Financial transactions

The present system of international finance was introduced by series of reform in Japan, the major turning points of which were the amended Foreign Exchange Law of 1980 and measures after the report of Yen/Dollar Committee in 1984 3/. The former legislation promoted impact loans (domestic loans in foreign currencies), deposit in foreign currencies, foreign bond issues and foreign portfolio investments by Japanese residents, while the latter reform was a product of the economic conflicts between the United States and

1/ Bundesbank (1991b, pp. 41-2). In 1990, around 60 percent of import from EC countries is denominated in DM, 23 percent in other EMS currencies, and 10 percent in dollars, reflecting oil-import from the Netherlands and Britain.

2/ See *White Paper of MITI*, 1992, pp. 166, 168.

3/ The cross-border capital transactions had been liberalized step by step from the late 1960s. But during the course of the 1970s, the government took a zig-zag policy stance towards capital movements. Generally speaking, controls on capital outflows were restrengthened, when the current account turned negative and the yen depreciated, because of the oil shock for example. Capital inflows were restricted when the surplus on current account increased and the yen appreciated. For more details, see Komiya and Suda (1991) and Fukao (1990).

Table 3. Foreign Trade Relations of Germany, Japan and the United States
(partner share: Percent)

Germany

Export

| Year | Europe | EEC | US | Japan | LDCs | OPEC | South-East Asia |
|------|--------|------|------|-------|------|------|-----------------|
| 1970 | 67.0 | 49.8 | 9.1 | 1.6 | 13.7 | 2.8 | 2.7 |
| 1975 | 64.2 | 43.6 | 5.7 | 1.1 | 17.0 | 7.5 | 2.5 |
| 1980 | 69.0 | 49.2 | 5.9 | 1.1 | 14.8 | 6.5 | 2.8 |
| 1985 | 65.4 | 47.4 | 10.0 | 1.5 | 13.9 | 4.7 | 3.4 |
| 1990 | 70.9 | 54.6 | 7.1 | 2.7 | 12.0 | 2.8 | 4.1 |

Import

| Year | Europe | EEC | US | Japan | LDCs | OPEC | South-East Asia |
|------|--------|------|------|-------|------|------|-----------------|
| 1970 | 62.1 | 51.7 | 11.6 | 1.9 | 17.2 | 6.0 | 2.5 |
| 1975 | 61.1 | 52.3 | 7.1 | 2.4 | 21.2 | 11.1 | 3.5 |
| 1980 | 60.0 | 49.0 | 5.4 | 3.1 | 21.2 | 11.1 | 4.2 |
| 1985 | 63.7 | 51.0 | 6.8 | 4.5 | 16.9 | 5.8 | 4.1 |
| 1990 | 65.8 | 52.3 | 5.8 | 6.0 | 13.9 | 2.6 | 5.4 |

Table 3 (continued)

Japan

Export

| Year | Europe | EEC | US | Germany | LDCs | OPEC | South-East Asia |
|------|--------|------|------|---------|------|------|-----------------|
| 1970 | 14.8 | 12.1 | 31.5 | 2.9 | 36.7 | 5.1 | 21.8 |
| 1975 | 14.5 | 10.2 | 20.4 | 3.0 | 49.3 | 15.1 | 22.5 |
| 1980 | 16.6 | 13.2 | 24.7 | 4.5 | 45.4 | 14.2 | 23.8 |
| 1985 | 14.2 | 11.4 | 37.5 | 4.0 | 32.1 | 7.5 | 19.0 |
| 1990 | 21.7 | 18.8 | 32.2 | 6.3 | 37.2 | 4.7 | 28.8 |

Import

| Year | Europe | EEC | US | Germany | LDCs | OPEC | South-East Asia |
|------|--------|------|------|---------|------|------|-----------------|
| 1970 | 10.3 | 8.5 | 37.1 | 4.1 | 35.7 | 13.9 | 13.2 |
| 1975 | 7.5 | 6.1 | 23.4 | 8.8 | 52.1 | 33.6 | 17.1 |
| 1980 | 7.0 | 5.8 | 19.6 | 2.0 | 60.4 | 40.4 | 22.7 |
| 1985 | 8.5 | 6.9 | 21.9 | 2.5 | 53.1 | 28.5 | 23.7 |
| 1990 | 17.6 | 15.0 | 24.2 | 5.3 | 42.0 | 18.0 | 23.5 |

Table 3. (concluded)

USA

Export

| Year | EEC | Canada | Germany | Japan | LDCs | OPEC | South-East Asia |
|------|------|--------|---------|-------|------|------|-----------------|
| 1970 | 28.6 | 20.7 | 6.3 | 10.8 | 29.1 | 4.8 | 8.5 |
| 1975 | 21.1 | 20.1 | 4.8 | 8.9 | 35.7 | 10.1 | 9.5 |
| 1980 | 24.6 | 15.7 | 5.0 | 9.5 | 36.2 | 8.1 | 10.8 |
| 1985 | 21.1 | 21.8 | 4.2 | 10.5 | 32.1 | 5.5 | 11.2 |
| 1990 | 24.7 | 20.9 | 4.8 | 12.4 | 32.6 | 3.6 | 14.2 |

Import

| Year | EEC | Canada | Germany | Japan | LDCs | OPEC | South-East Asia |
|------|------|--------|---------|-------|------|------|-----------------|
| 1970 | 24.3 | 27.8 | 8.0 | 14.7 | 26.1 | 4.2 | 8.5 |
| 1975 | 18.4 | 22.9 | 5.8 | 11.8 | 40.6 | 17.6 | 10.6 |
| 1980 | 15.8 | 16.3 | 5.0 | 13.1 | 47.3 | 21.9 | 12.7 |
| 1985 | 19.9 | 18.9 | 5.8 | 20.2 | 33.8 | 6.7 | 15.8 |
| 1990 | 18.5 | 18.1 | 5.9 | 18.0 | 36.4 | 7.9 | 17.0 |

Source: UNCTAD, *Handbook of International Trade and Development Statistics*, 1990, BOJ, *International Statistics*, etc.

Japan, highlighted by the huge surplus in the Japanese current account. The United States hoped to decrease Japanese surplus through the further liberalization of capital movements and the internationalization of yen, on the recognition that the depreciated yen generated higher competitiveness of Japanese products. Accordingly, the United States demanded promoting entry of foreign financial institutions, liberalization of interest rate, and creation of euro-yen market, and most of them were admitted. Thus, the peculiar fact for Japan was that international finance denominated in yen was realized through the U.S. demand 1/.

Another characteristics is that international finance denominated in yen has Japanese residents either on one side, or on both sides. A good example is the recent growth of euro-yen bond issues. In the late 1980s, Japanese firms increased equity-bond issues rapidly in the euro-market, taking advantage of the rising stock prices, major part of which was denominated in Swiss franc and the U.S. dollars. Thereafter, the share of euro-yen increased in the 1990s. The Japanese residents were not allowed to issue euro-yen bonds until 1984, the year of the Yen/Dollar Committee Report, the subsequent deregulation promoted issues by Japanese residents as well as by non-residents. After 1990, when the stock prices fell down suddenly, euro-yen issues took the place of fund raising in the domestic stock market. The formal as well as informal regulations on the domestic bond issues shifted Japanese firms to the euro-yen market, while Japanese institutional investors bought most of these euro-bonds 2/. In other words, for both borrowers and investors of Japanese residents, the euro-market provided better financial intermediation function.

Similar phenomena exist also in Germany, however. Foreign affiliates of German banks issue euro-DM bonds and transmit thus raised funds to home offices, while the major part (around 40 percent at the end of 1990) of the outstanding euro-DM bonds are held in Germany (Bundesbank, 1991a, pp. 25, 27). This must be a response to the domestic regulation. German regulations are as strict as in Japan, in the sense that the Bundesbank did not allow non-residents (including foreign affiliates of German banks) to issue DM-bonds with maturity under two years. Possibly, this limitation was one of the factors which developed euro-DM bond market 3/. Thus, the domestic regulations promoted fund-raising with euro-bonds not only in Japan, but also in Germany.

1/ See Frankel (1984, and 1992, pp. 28-29).

2/ *The Annual Report of the IF Bureau of the MOF*, 1992, p. 133. Takeda and Turner (1992, p. 75ff).

3/ The difference between the foreign bond and euro-bond is not so clear-cut in Germany as in other countries including Japan. Since foreign bond issues, in the traditional sense, have been negligible recently (see Table 10A), the foreign bonds (*Auslandsanleihen*) in the German statistics imply almost exclusively euro-bonds.

Another example of residents' transactions is the euro-yen business in the JOM (Japan Offshore Market) where the Japanese are the main traders. Japanese banks often borrow yen-funds in the JOM and transmit them to domestic offices, naturally not directly, but indirectly via their foreign branches. This unnatural transaction results from the window-guidance by the Bank of Japan which sets a limit on lending by domestic funds 1/.

The yen-share in international bank-lending grew rapidly in the mid-1980s, the major part of which reflected business of Japanese banks in the Tokyo Market. After the Tokyo stock prices fell down rapidly in 1990, the BIS regulations of banks' own capital put a brake on the asset growth of Japanese banks 2/. Thus, the sudden decrease of yen in bank-lending was the side-effect caused by the outburst of the financial bubble in Japan. The Asian countries had already commenced to borrow more in yen than in dollars 3/. Whether or not this tendency is affected by the overall decrease of yen-lending share, is not yet clear, because of the limited access to data.

In the euro-currency market, the yen share grew as late as in the late-1980s, after the resolution of the Yen/Dollar Committee, while the euro-DM market developed earlier, already in the 1970s. The German monetary authorities did not favor the internationalization of D-Mark, however, restricting international finance with capital controls. As a result, the euro-DM market developed outside Germany, namely in Luxembourg 4/. Not merely German non-residents, but also German financial and non-financial institutions supply funds to the euro-DM market, and they also borrow from this market, in order to overcome domestic regulations, as the Bundesbank (1983) reports. In this sense, Japan's "by-pass" finance via the off-shore market is not exceptional. The peculiar side for Japan is the fact that without the foreign pressures from the United States, the development of euro-yen market would not have been realized so early. One reason for this may be that the strict regulation by the Ministry of Finance extended to the euro-financial business, such as restrictions of the euro-lending in the late 1970s and the so called Three Bureaux (of the MOF) Agreement. However similarly to the latter Agreement, the Bundesbank limited lead management of the euro-DM bond issues to the domestic financial

1/ For the function of the JOM, see Osugi (1990, pp. 26-28, 64-65).

2/ See for example Iwami (1993a).

3/ Tavlas and Ozeki (1992, Table 24) and Frankel (1992). Ito (1993, p. 312) added that the countries more dependent on ODA (Official Development Assistance) from Japan, like Indonesia and Philippines, show larger share of yen-denominated debts.

4/ The first establishment of the foreign affiliates in Luxembourg was Dresdner Bank in 1967, followed by Commerz Bank in 1968 and Deutsche Bank in 1970. The foreign affiliates, different from the foreign branches, were not imposed domestic regulations until 1990. Neumann (1986, pp. 79, 90-91).

institutions until 1985 1/. Therefore, factors other than regulations would have been more important for the euro-financial growth.

Generally speaking, the limited use of yen in international transactions is attributed to the underdevelopment of the financial market, denominated in yen 2/. As a corollary, it is claimed that the yen-transactions are, for foreigners, untransparent and difficult to undertake. But this kind of argument sounds to be rather tautological, because a financial market would not develop well, if any other factors limit the non-residents' demand for yen. Indeed, the governmental regulations undoubtedly hindered world-wide financial transactions in yen, but the difference from the D-Mark cannot be attributed solely to this element.

There were similar regulations in both Japan and Germany, and German financial markets are still more regulated not only than British, but than French and Belgian, according to opinions of a Japanese banker in Frankfurt 3/. As another evidence, Frankel (1991, Table 8.6) shows that covered interest differentials for Germany (0.35 percent point) is four times as large as for Japan (0.09 percent point), from September 1982 to April 1988. Table 4A shows interest differentials between domestic and eurocurrency markets, and the Table 4B reports covered interest differentials for the more recent period. The results shown by Frankel may suggest that liberalization of financial markets developed to a greater extent in Japan than in Germany. Taking account of the low level of differentials, however, and from Table 4A and 4B, we can safely conclude that Japanese financial market is no less liberalized than German. The internationalization of the D-Mark is thus not so much based on the financial liberalization. Real factors, such as competitive trade goods and the share in the intra-european trade have been more important.

As for the stability in purchasing-power, the inflation rate (measured by GDP deflators) in Japan has been lower than in Germany and the lowest among the G-7 countries, at least since the 1980s (Table 5). That the D-Mark holds higher position as an international currency than yen, suggests importance of other factors than the stability in relative values. The EC countries use the D-Mark as an intervention currency more frequently than before. Even if the European Monetary Union selects ECU or any other new currency in the future, the Bundesbank will rule the monetary policy stance

1/ Neumann (1986, pp. 110-111). After this limitation was abolished, new entry of foreign financial institutions stimulated the euro-DM bond market. Bundesbank (1985, 1992).

2/ The monetary authority controls foreign banks' fund transaction between the German branch and their home offices. For the business in all markets, the matching of assets and liabilities is required for both the short-term and longer-term respectively. The maturity transfer is thus restricted. For example, Kaizuka and Hata (1986), Kawai (1992) and Ito (1993) etc.

3/ Interview in August, 1992.

Table 4a. Interest Differentials between Domestic and Eurocurrency Market,
(1988 January - 1993 May, Percent point)

| | JCD/EY | JBA/EY | GIB/EM | GLM/EM |
|--------------------|--------|--------|--------|--------|
| Average | 0.087 | 0.856 | 0.047 | 0.084 |
| Standard Deviation | 0.118 | 2.152 | 0.371 | 0.606 |

Note: JCD: Japanese CD market Rate, JBA: Japanese Bankers' Acceptance Rate,
GIB: German Interbank Rate, GLM: German Lombard Rate, EY: Euroyen Deposit Rate, EM: Euromark Deposit Rate, all data are for 3-month, and at or near end-of-month.
Source: Data Resources Inc. *Databank*

Table 4b. Covered Interest Differentials of Yen and D-Mark
(1988 January - 1993 May, Percent points)

| | EY/ED | EM/ED | JCD/ED | JBA/ED | GIB/ED | GLM/ED | YFD | MFD |
|--------------------|--------|-------|--------|--------|--------|--------|--------|-------|
| Average | -0.558 | 0.593 | -0.478 | 0.290 | 0.641 | 0.677 | -0.507 | 0.387 |
| Standard Deviation | 1.243 | 4.106 | 1.190 | 1.054 | 3.978 | 4.020 | 1.072 | 3.590 |

Note: ED: Eurodollar Deposit rate (3 month), YFD: Yen forward Discount, MFD: Mark forward Discount, Covered Interest Differential is defined as $i - i^* - FD$, where i : each interest rate, i^* : eurodollar deposit rate, FD: forward discount. Forward discount is calculated as $(\log(F) - \log(S)) * 400$, where F: 3-month forward exchange rate, S: Spot exchange rate.
Source: Data Resources Inc. *Databank*. F and S are from IMF, *International Financial Statistics*, quoted at end-of-month.

in Western Europe as before. In the same way as the United States' relation with the world economy, the size of the German economy and its trade relations affect the acceptability of the D-Mark in the European community. Moreover, in the similar way as the prospect of the American public deficits affects the dollar exchange rate, the possibility to reduce the unification costs would influence the future course of the D-Mark.

In contrast to the German economic relations with neighboring countries, Japanese trade with and investments in the United States determine the limited use of yen in international financial transactions 1/. Not merely the comparison with the D-Mark, but also comparative historical observation of the pound-sterling and the dollars suggests the importance of real factors for a key-currency, as the next section demonstrates.

III. Key Currency and International Financial Center

3.1 Economy of scale

We define prerequisites of an international currency as "the world-wide acceptability, stability of the purchasing-power, and financial facilities"; a wider definition than the McKinnon's "convertibility in current transactions" (1979, p. 3ff). An international currency superior in these conditions is likely to be more widely used, and will take a central position in international transactions as a key currency 2/. In this sense, the yen is supposed to be in the rising process to a key-currency. In addition to the above definition of a key currency, following remarks would be necessary.

Firstly, what role do political as well as military factors play in the rising process to a key currency? The U.S. dollar is often referred as a good example of the political influence in that the dollar supply through Marshall Plan and military, economic aid contributed to the key currency status of the dollar in the postwar years. These channels were indeed important, but we would like to stress the fact that countries other than the United States, in particular European countries and Japan had huge deficits in trade balance with dollar-area countries. Whatever the actual channels of the dollar supply would have been, the demand for the dollar by these countries resulted from the American competitiveness in producing basic reconstruction materials and food. In this sense, the key position of the dollar was determined by the economic factor 3/. Another example is the pound-sterling before the World War I. It was private transactions in

1/ For geographical breakdown of log-term capital flows, see Tavlas and Ozeki (1992, Table 13).

2/ Therefore, key currency is not necessarily only one. Discussions below are partly based on Iwami and Kawai (1990).

3/ Iwami (1992, p. 17).

Table 5. Inflation Rates of the G-7 Countries
(GDP Deflator, Annual Average : Percent)

| Country | 1960-68 | 1968-73 | 1973-79 | 1979-89 | 1960-89 | 1990 | 1991 |
|---------|---------|---------|---------|---------|---------|------|------|
| U.S. | 2.5 | 5.3 | 8.0 | 4.7 | 4.9 | 4.1 | 3.6 |
| Japan | 5.4 | 6.9 | 8.1 | 1.6 | 4.9 | 2.1 | 1.9 |
| Germany | 3.1 | 6.3 | 4.8 | 3.0 | 4.0 | 3.4 | 4.4 |
| France | 4.0 | 6.8 | 10.9 | 7.2 | 7.0 | 3.1 | 3.0 |
| Britain | 3.7 | 7.4 | 18.1 | 7.5 | 8.1 | 6.4 | 6.9 |
| Italy | 4.3 | 7.5 | 17.1 | 11.6 | 9.9 | 7.8 | 7.1 |
| Canada | 2.8 | 5.3 | 9.2 | 5.7 | 5.5 | 3.0 | 2.7 |

Source: OECD, *Historical Statistics*, IMF, *International Financial Statistics*.

international trade and finance, not public expenditures, that supported its key currency role.

Secondly, the question which factor of private and public transactions is more important, is easy to answer. The currency most widely used in private markets will be preferred in the public transactions as well, since the scale of the private transactions are far greater, and public authorities cannot ignore this scale in selecting intervention- or reserve currency. In the private international markets, the relative economic advantages are decisive, different from the domestic currency forced by law (legal tender). The key currency is, so to speak, born by natural selection.

Thirdly, which factor of the real and financial is more important in this natural selection process? This question is more complicated than the above raised two. The extent to which a country's currency is used in foreign trade, generally speaking, depends on the competitiveness of the trade goods and facilities of finance. These two factors do not necessarily concentrate in a single country.

However, historically well-known example is Britain in the 19th century, which possessed the key-position in the real (trade and shipping) as well as financial transactions. This position enabled the "world banker" function and caused the pound-sterling work as a key currency. In the interwar period, on the other hand, the British decline in the real transaction did not go along with the international financial function London still possessed. The United States acquired the rise of the dollar in the world economy, on the basis of the real competitiveness, but with a certain time-lag. This aspect of the "inertia" will be reconsidered below.

One of the most important prerequisites for a key-currency is the "economy of scale". The pound-sterling before the World War I kept a share, seen from trade finance, of around 60 percent in the world trade, while the British trade share remained to be in the range of 14 percent and 17 percent, export and import respectively. The share of the pound-sterling stood far greater than the British trade share. Similarly in 1979, the shares of the dollar and the United States in the world trade were 55 percent and 12 percent, respectively ^{1/}.

The gap between the two categories above can be explained by the "economy of scale", the basis for which is the same for the sterling before the World War I and the dollar after the World War II. The pound-sterling had advantages of being used between third countries, because of trade finance facilities and the central position of Britain in the world's goods and service transactions. The dollar's advantage in the world economy is often attributed to the "vehicle currency" function in financial and foreign

^{1/} The share for Britain is from Williams (1968, p. 268) and Table 6B, and Page (1980, p. 61) for the United States.

exchange markets 1/. However, this function is in fact supported by the U.S. size in the global real economy.

Tables 6A and 6B show that the American size is more remarkable in the GNP than in the trade share, which suggests that the United States can expand its relative size further in the future as an importer and/or an investment market. Indeed, Germany overtook the United States in export share during the course of the 1980s, but the fact that German export concentrates largely in Europe, limits the global use of the D-mark.

Generally speaking, the larger the economic size of a country is, the larger transactions in the country's currency would be, which can be characterized as an "economy of scale" based on the real factor. As a large exporter and importer, this country has a bargaining-power to impose use of its currency. Moreover, a currency is accepted world-wide, if the acceptor can use it to pay to others, and this relationship develops like a virtuous circle. If based on the real factor, the virtuous circle is more stable, in such a way as the largest country in the world has the largest number of trade partners, its currency is likely to be more familiar globally and to develop a foreign exchange market for spot as well as forward transactions 2/.

Does the "economy of scale" in international financial transactions support the "inertia" effect? Financial assets cost less time and money in transactions than real goods, and far less than before due to electrotechnical innovation in information processing. Therefore, if the relative value of a key currency turns to be unstable, the substitution of currencies (portfolio) will take place and may disturb the working of the whole international monetary system. In the real transactions, on the other hand, other factors than the relative value influence as well, as trade requires substantial investments in distribution, marketing and after-care system 3/. In particular, this difference is important in the case of the dollar. Despite its unstable exchange rate, its "vehicle currency" function does not seem to decline remarkably in international financial markets. How do the size of the U.S. economy and the bargaining power based on it affect international financial market? More generally, the question is how to explain the "inertia" effect, which is related to the topic discussed in the following section.

3.2 International financial center: a historical review

We define an international financial system as being composed of (1) a key-currency, (2) a financial center where international financial

1/ For example, Krugman (1984).

2/ The importance of the economic size is stressed also by Page (1980, p. 62).

3/ The "inertia" in this sense is similar to the discussion in Krugman (1989).

Table 6. Economic Size of Major Countries

A. GDP share of the 18 Developed Countries (Percent)

| Country | 1870 | 1913 | 1929 | 1938 | 1950 | 1973 | 1989 |
|---------|------|------|------|------|------|------|------|
| France | 16.4 | 9.8 | 9.1 | 8.3 | 6.8 | 7.5 | 7.0 |
| Germany | 8.6 | 8.9 | 7.5 | 9.8 | 6.5 | 8.7 | 7.8 |
| Japan | 5.8 | 5.0 | 6.2 | 7.9 | 5.1 | 13.9 | 16.7 |
| Britain | 21.5 | 15.3 | 11.8 | 13.2 | 11.1 | 7.9 | 6.9 |
| U.S. | 24.5 | 40.8 | 46.1 | 40.7 | 51.3 | 41.5 | 41.0 |

Calculated from Maddison, Angus (1991), *Dynamic Forces in Capitalist Development, A Longrun Comparative View*, Oxford University Press, Table A-2.

B. Trade share (Percent)

Export

| Country | 1913 | 1929 | 1938 | 1948 | 1965 | 1980 | 1990 |
|---------|------|------|------|------|------|------|------|
| France | 7.2 | 6.0 | 3.9 | 3.8 | 5.4 | 5.6 | 6.2 |
| Germany | 13.1 | 9.2 | 9.4 | 1.1 | 9.6 | 9.7 | 11.7 |
| Japan | 1.7 | 3.0 | 3.4 | 0.5 | 4.5 | 6.5 | 8.5 |
| Britain | 13.9 | 10.8 | 10.2 | 12.1 | 7.1 | 5.5 | 5.5 |
| U.S. | 13.3 | 15.8 | 13.6 | 23.8 | 14.6 | 11.3 | 11.6 |

Import

| Country | 1913 | 1929 | 1938 | 1948 | 1965 | 1980 | 1990 |
|---------|------|------|------|------|------|------|------|
| France | 8.3 | 6.5 | 5.5 | 5.9 | 5.2 | 6.6 | 6.6 |
| Germany | 13.1 | 9.1 | 9.1 | 2.4 | 8.9 | 9.2 | 9.7 |
| Japan | 1.9 | 2.8 | 3.1 | 1.2 | 4.1 | 6.9 | 6.6 |
| Britain | 16.5 | 15.3 | 17.4 | 13.9 | 7.9 | 5.6 | 6.6 |
| U.S. | 9.1 | 12.3 | 8.1 | 12.2 | 10.8 | 12.6 | 14.6 |

Source: League of Nations, *International Statistical Yearbook, Statistical Yearbook*, United Nations, *Yearbook of International Trade Statistics*.

transactions, associated with information and manpower, concentrate, and (3) potential of capital supply, namely surplus in current account of the balance of payments. Naturally, these three elements are interrelated. The element (1) presupposes elements (2) and (3), while a country possessing (2) have usually enough surplus in current account (3). Nevertheless, it was solely Britain before the World War I that possessed the three elements simultaneously, whereas the interwar period experienced the two polar structure of key-currencies and international financial centers ^{1/}. The current instability of the world economy result, at least partly, from the fact that the elements (1) and (3) are separated in different countries. How are these elements related to real factors?

History shows that the large scale change in international financial positions were caused not so much by the competitiveness of trade goods, and therefore surplus in trade balance in a long-run, as by great wars. Although wars broke out more or less accidentally, belligerent had to raise funds for military expenditures, usually larger than their domestic financial capabilities. Import of war-materials and foods realized potential gaps in supply-side powers. The subsequent capital movements during the wars affected relative positions of international financial centers.

In the process that a certain currency grows to a key currency, the competitiveness of trade goods, surplus in the current account of balance of payments, and free movements of capital play important roles. However, once a key currency position is established, this function does not disappear in a short run, even though surplus in current accounts fades away and capital transactions are put under control. What elements do support the position of a key currency?

The competitiveness in real transactions, trade and shipping for example, promotes concentration of manpower and information, which make up the precondition for an international financial center. The size and network of trade, such as entrepôt trade, do not change themselves easily, despite a decline of the country's competitiveness. Since trade and finance are information-based industries, their development requires a certain period of time to accumulate information and experiences.

London took the place of Amsterdam as the "world banker" during the Napoleonic War. The continental countries as well as Britain raised funds for military expenditures in the London bond market. Whether or not Britain was a creditor country before the war, is not clear, but this country increased foreign portfolio investments during the war and undoubtedly

^{1/} In the years before the World War I, Paris and Berlin functioned as other financial centers along with London, and the French Franc and the Mark were widely used on the Continent. However, the interest rate movements in London had decisive influence on both Paris and Berlin, which suggests a central position of London in global capital movements. For the interpretation of this structure, see Lindert (1969, pp. 52-57).

became a net creditor 1/. This is one of the earliest examples that the war promoted the geographical shift of the international financial center.

Amsterdam could not keep its former key-position, because the Netherlands had already lost its competitiveness in trade and shipping before the war. Britain developed export of woolen goods in the 17th century, and of the cotton goods in the 18th century, respectively, while the Navigation Acts of the 17th century enabled her shipping industry to replace the Dutch rivals. During the 18th century, the decline of the Netherlands and the rise of Britain were definitive.

It is still debatable, however, whether London's position as an international financial center was preeminent in the early 19th century. Until the 1850s and 1860s, Paris may have competed with London in international financial business. But due to the suspension of currency convertibility during the Franco-Prussian War and the subsequent indemnity payment, Paris surely lost its ground 2/. In 1869, the French foreign assets amounted to around 60 percent of the British, while in 1880, despite recovery after the indemnity payment, they were at most the half of the British (see Table 7). This is another example that the war accelerated a shift of the international financial center.

Better known is the huge British indebtedness and American foreign loans during the two World Wars 3/. Nevertheless, it is worth noting that the change in foreign financial position did not lead to a major shift of the international financial center. In the 1920s, the United States took over Britain in surplus in current accounts of the balance of payments, and New York became the largest market for long-term capital issues. However, London still kept rival position, because the global transactions of goods and service centered itself in Britain, and the resulted accumulation of information and knowledge sustained the trade finance market of the world. The official reserves were employed in London, not only by the Empire countries but by others, because of the matured short-term finance facilities.

1/ See Hobson (1914, pp. 87, 95), and Jenks (1963, pp. 17-18).

2/ Kindleberger (1978, pp. 121-122).

3/ For the British current account of the balance of payments and American balance of goods and service, see Iwami (1993b, Figure 2). Data are lacking for net international financial positions of Britain and the United States. The loss of British overseas assets during the World War I is estimated as between 4 and 5 billion dollars, and United States held private net assets of a few billion dollars and foreign public credit amounted to ten billion dollars after the War, United Nations (1944, pp. 4-5).

Table 7. Foreign Assets of Britain and France (million pounds)

| Year | Britain | France | France/Britain |
|------|---------|-------------|----------------|
| 1850 | 208.7 | 96 | 46 Percent |
| 1869 | 648.2 | 396 | 61 |
| 1880 | 1189.4 | 595 - 523 | 50 - 44 |
| 1890 | 1935.1 | 793 - 744 | 41 - 38 |
| 1900 | 2396.9 | 1070 - 1031 | 45 - 43 |

Source: Imlah, Albert, M. (1958), *Economic Elements in the Pax-Britannica*, Harvard University Press, Cambridge, Mass., pp. 71-74, Cameron, Rondo E. (1961), *France and the Economic Development of Europe 1800-1914*, Princeton University Press., p. 534. For 1850, converted with the annual average of the foreign exchange rate, 1 pound = 25.947 Franc, from J. Schneider et. al., *Währungen der Welt*, Bd.1, Franz-Steiner Stuttgart, 1991. After 1869, converted with the parity, 1 pound = 25.225 Franc.

Table 8. Bank Acceptances Outstanding (year end, million dollars)

| Year | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 |
|----------|------|------|------|------|------|------|------|------|------|
| London | 1176 | 1591 | 1435 | 1254 | 623 | 492 | 767 | 832 | 799 |
| Paris | 18 | 53 | 76 | 80 | 49 | 24 | 35 | 29 | 51 |
| New York | 864 | 1095 | 1426 | 1244 | 708 | 480 | 487 | 350 | 287 |
| total | 2058 | 2739 | 2937 | 2578 | 1380 | 996 | 1289 | 1211 | 1137 |

Note: Original figures in Baster, A. S. J. (1937), "The International Acceptance Market", *American Economic Review*, Vol. 27, 2, June 1937, Table 1. Converted with exchange rates at year-end from Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics*, Washington D.C., 1943.

The international financial business was restricted in the interwar years since the British government and the Bank of England imposed regulations on foreign bond issues 1/. This fact actually hindered long-term capital issues in London, but did not so much endanger the position of the financial center. In the 1930s, although the pound-sterling depreciated against the dollar since September 1931, and finally lost convertibility into other currencies in 1939, other countries still increased its use for trade finance and official reserve 2/. The statistics of bankers' acceptance in 1935 show 800 million dollars for London, and less than 300 million dollars for New York, although New York had reported in 1929 and 1930 almost the same figure as London (Table 8). Britain increased net foreign (mainly short-term) liabilities from 411 million pounds in 1931 to 517 million pounds in 1939, the major part of which was due to "sterling area" countries, while cutting liabilities to the rest of the world 3/.

In this way, although Britain decreased capabilities to export capital, thus restricted capital movements between the Wars, and finally depreciated its currency in the 1930s, London did not easily decline from the international financial center. The main reason is the size of her goods market, in other words, the British share in the world imports. In the 1930s particularly, the "sterling area" countries benefitted from the growing export to Britain where the depreciation of the pound sustained rather stable economic growth, in contrast to the prolonged and deep depression in the United States 4/. Accordingly, these countries had enough incentives to employ funds in the pound-sterling, thereby supporting the international financial business in London.

The supply of the dollar after the World War II resulted from the American deficits in the public transactions (foreign aid and military expenditures) of the balance of payments. Because of the defaults in the 1930s as well as the capital controls during the war, private capital movements did not grow in the first postwar decade, and the public transfer of the dollars took the leading place. In the 1960s, private capital transactions like direct foreign investments and foreign bond issues in New

1/ Regulations originated during the World War I were finally abandoned in November 1925, but reintroduced after the depreciation of the pound-sterling in 1931. Cairncross and Eichengreen (1988, pp. 21-22).

2/ For the pound-sterling in the interwar years, see Brown (1944, ch. 19,31), Cairncross and Eichengreen (1988, Ch. 3), and Eichengreen (1992).

3/ Although liabilities in foreign currencies are included, they are mostly due to non-sterling area countries. The liabilities to British Empire amounted to 362 million pounds, while the total liabilities were 517 million pounds at the end of 1939. Cohen (1971, p. 89).

4/ Cairncross and Eichengreen (1988, p. 83ff). Note that British share of GDP and import show increase between 1929 and 1938, see Tables 6A and 6B.

York came in front. Against this background, American government introduced (initially voluntary) restraints on foreign investments and lending ^{1/}.

As a result, international financial business in the United States was restricted, while the international finance in dollar did not shrink, because the eurodollar market developed, particularly in London. The superiority of the dollar was not thus based on the international financial center located in the United States, but on the fact that the United States was the largest exporter and importer of the world and had technical advantages not only in manufacturing, but in management and financial business, as the development of the American multinationals suggest ^{2/}. In other words, the size and competitiveness of real transactions formed the basis of the key-currency position.

Seen from the American current account of the balance of payments, New York capital market would not play a central role in the near future. However, the key-currency function of the dollar gathers international financial business towards New York, for example settlement of the eurodollar transactions. For employment of dollar funds as well, New York market has naturally an advantage. In this way, the working of an international financial center is promoted by the existence of a key-currency, rather than the other way around. One of the prerequisites for a key-currency results from the key-currency itself, which is a sort of tautology. But if the deficits in current account do not disappear, the "world banker" role does not last for a long time. Indeed, the scale of the American economy constitutes a good market for foreign investors, but the instability of the dollar will hinder continued investments from outside.

London, on the other hand, has advantages in accumulated information, manpower, and know-hows, despite the still weaker international position of the pound-sterling. The share of international banking business in the United States temporarily increased, after the establishment of the IBF (International Banking Facilities) in 1981, but it is on the decreasing trend thereafter, while the share of Britain (London) kept its level until the mid-1980s (Table 9). This fact implies that the deregulation, or liberalization of the international transactions constitutes a necessary, but not enough condition for an international financial center.

3.3 Internationalization of the Tokyo Market

To be an international financial center, the stylized important factors are the large share of non-residents' transactions, and of foreign financial institutions, and merits of fund-raising and -employment, naturally preceded by liberalization of cross-border capital movements. Advantages in these factors undoubtedly facilitate growth of international business. Since

^{1/} See for example, Hawley (1987, Ch. 4 and 5).

^{2/} American multinationals were the main customers in the euro-finance market. See Morris and Little (1970, pp. 61-63), Mendelsohn (1980, p. 34).

Table 9. Foreign Assets of Banks. (Share of Location, Year end, Percent)

| country | 1979 | 1983 | 1985 | 1987 | 1989 | 1990 | 1991 |
|---------|------|------|------|------|------|------|------|
| Japan | 4.1 | 6.2 | 7.7 | 13.9 | 16.7 | 16.1 | 14.7 |
| U.S. | 12.3 | 22.6 | 16.9 | 12.2 | 11.9 | 9.8 | 9.2 |
| France | 11.1 | 8.0 | 6.5 | 6.4 | 6.6 | 7.2 | 6.4 |
| Germany | 6.2 | 3.6 | 3.9 | 5.0 | 5.3 | 6.2 | 6.0 |
| Britain | 25.7 | 27.5 | 22.0 | 21.0 | 18.4 | 18.1 | 15.9 |

Source: BIS, Annual Report, various issues.

Table 10a. Foreign Bond Issues. (Share of Market, Percent)

| Country | 1980 | 1982 | 1984 | 1986 | 1988 | 1989 | 1990 | 1991 |
|-------------|------|------|------|------|------|------|------|------|
| Switzerland | 38.5 | 44.8 | 46.6 | 58.9 | 54.5 | 43.4 | 46.6 | 41.4 |
| U.S. | 13.8 | 23.8 | 15.3 | 17.3 | 20.9 | 21.9 | 19.9 | 26.3 |
| Japan | 7.7 | 13.1 | 15.7 | 13.2 | 13.9 | 19.1 | 15.9 | 10.6 |
| Luxembourg | n.a. | n.a. | n.a. | 2.0 | 3.7 | 4.0 | 8.8 | 11.4 |
| Britain | n.a. | n.a. | 6.0 | 1.0 | 1.0 | 2.8 | 1.0 | --- |
| Germany | 25.6 | 8.3 | 8.5 | --- | --- | --- | --- | --- |

Source: OECD, Financial Market Trends.

Table 10b. External Bond Offerings (Currency Composition, Percent)

| currency | 1980 | 1982 | 1984 | 1986 | 1988 | 1989 | 1990 | 1991 |
|-------------|------|------|------|------|------|------|------|------|
| U.S. dollar | 42.2 | 63.9 | 57.3 | 53.9 | 35.4 | 45.9 | 32.6 | 28.5 |
| Yen | 4.9 | 5.2 | 7.1 | 10.4 | 8.7 | 8.7 | 13.7 | 12.9 |
| Swiss Franc | 19.7 | 15.0 | 14.6 | 10.7 | 12.5 | 8.7 | 10.5 | 7.3 |
| Sterling | 3.0 | 2.6 | 4.9 | 4.6 | 10.8 | 8.4 | 10.0 | 9.1 |
| D.M. | 22.1 | 7.1 | 7.8 | 8.0 | 11.6 | 7.5 | 8.5 | 7.1 |
| ECU | --- | 1.1 | 3.3 | 3.4 | 5.4 | 5.6 | 8.2 | 11.1 |

Source: OECD, Financial Market Trends.

there are a number of works on the recent situation of the Tokyo market, we focus below on several aspects worth noting.

While the business in the IBF recently shows stagnation, the Japanese Offshore Market (JOM) has grown rapidly. The Japanese market share in international banking surpassed the American, and competed with the British in the late 1980s (Table 9).

Why has the JOM grown so dramatically compared with the IBF? As described above, Japanese financial institutions made use of the JOM in order to avoid domestic regulations, and thus stimulated the market's growth. American banks had used euro-offshore market for the same reason, until the establishment of the IBF, which absorbed this kind of offshore business from overseas. Up to this point, the JOM functioned in the same way as the IBF. The reason why the temporal expansion of the IBF stagnated, seems to be the American banks' retreat from the international business 1/. Apart from the American situation, the growth of the JOM implies a typical case that the international business in Japan depends much on the residents and the existence of domestic regulations.

Another feature to be noted in Table 9 is the remarkable gap between Japanese and German shares. Although the D-mark occupies a higher rank as an international currency, and German banks prefer the D-Mark in their international business, these facts do not necessarily lead to forming the international banking center in Germany. This is an opposite case to Japan.

In contrast to the Japan's market share in international banking, foreign bond issues in Japan stay far below the Swiss and American figures (Table 10A). Japanese firms occupy major part of foreign issues in Swiss market 2/. This is another side of the domestic, formal as well as informal, regulations which limit also foreign yen-bond (Samurai bond) issues in Japan. Soon after the euro-yen bonds were liberalized, issues in that market far exceeded those of foreign bonds in Japan. Remaining regulations drove non-residents as well as residents to euro-bond market for raising yen-funds 3/.

1/ American banks were obliged to retreat, mainly because of the low profitability and aggressive competition by Japanese banks. See for example, Iwami (1993a).

2/ Foreign bond issues in Switzerland amounted to 30.6 billion dollars in 1989, 32.2 billion dollars in 1990, and 29 billion dollars in 1991, of which Japanese borrowing were 69 percent in 1989, 43 percent in 1990, and 46 percent in 1991. OECD, *Financial Market Trends*, No. 53, 1992, Table 8. Japanese share was enormous in 1989, but still as large as more than 40 percent in the following years.

3/ See Takeda and Turner (1992, p. 75ff). The domestic bond issues were regulated in terms of amount, timing and required collateral.

Table 11. Number of Branches and Assets of Foreign Banks

| year | Germany (billion DM) | | | Japan (10 billion yen) | | |
|------|----------------------|--------------|-----------------------|------------------------|--------------|-----------------------|
| | branches | their assets | share in total assets | branches | their assets | share in total assets |
| 1970 | 25 | 12.05 | 1.5% | 38 | 127.4 | 2.0% |
| 1973 | 42 | 28.18 | 2.4 | 61 | 187.7 | 1.7 |
| 1975 | 49 | 33.68 | 2.3 | 75 | 293.1 | 2.0 |
| 1980 | 56 | 44.52 | 1.9 | 85 | 985.5 | 4.3 |
| 1985 | 63 | 81.43 | 2.5 | 114 | 1705.0 | 4.5 |
| 1987 | 59 | 69.85 | 1.9 | 117 | 1565.0 | 3.3 |
| 1991 | n.a. | n.a. | n.a. | 137 | 2796.3 | 3.8 |

Deutsche Bundesbank (1988, pp. 44, 126), MOF, *Annual Report of Banking Bureau*, MOF, *Economic Statistics Annual*, Various Issues.

Table 12. International Assets of Banks
(Share of Nationalities, year end, Percent)

| country | 1983 | 1985 | 1987 | 1988 | 1989 | 1990 | 1991 |
|---------|------|------|------|------|------|------|------|
| Japan | 21.1 | 26.1 | 35.4 | 38.2 | 38.0 | 33.9 | 31.4 |
| U.S. | 28.0 | 21.7 | 14.8 | 14.7 | 14.1 | 11.4 | 10.6 |
| France | 8.0 | 9.0 | 8.6 | 8.4 | 8.4 | 8.8 | 9.5 |
| Britain | 8.3 | 7.1 | 5.8 | 5.2 | 4.8 | 4.4 | 4.6 |
| Germany | 6.7 | 7.0 | 7.9 | 7.7 | 8.4 | 9.7 | 10.4 |

Source: BIS, *Annual Report*, various issues, Takeda and Turner (1992), Table 31.

After the mid-1980s, supported by pressures from outside, foreign financial institutions gained business in Japan. Seen from foreign banks' share in total assets, the rise in the mid-1980s is quite remarkable, and in this sense, Japanese market is more internationalized than in Germany (Table 11). This fact suggests again that the openness of financial markets does not necessarily bring about the rise in the international status of that national currency.

For foreign banks, difficulties in Japanese market result from the fact that financial business has Japanese residents on either side, or both sides, and does not extend to the third parties. Japanese banks have advantages in business with residents, thanks to long-time relations ^{1/}, while foreign banks need enough time to "learn" know-hows of institutions and customs. Indeed, this is a demerit for foreigners, but applies, not confined to Japan, more or less to almost every financial center at least at the initial stage of development.

But no doubt that the more liberalized and transparent market will induce larger cross-border financial business. Since the larger share of foreign financial institutions raises the international position of the market, and it is also important to reduce disadvantages for foreigners. However, Japan's competitiveness in real sectors will reduce the relative weight of barriers generated by Japanese-style business, in a mid- or long-run.

The rise of Tokyo to an international financial center will coincide with the "internationalization of yen", for the following reasons:

1) Since transactions in Japanese market mainly constitute of residents, they prefer yen as transaction currency, in order to avoid currency risks and, according to a Japanese banker, to acquire better information on the monetary policy stance of Japanese authorities.

2) Eurodollar business already exists in Hong Kong and Singapore within Asia. "Economies of scale" may benefit eurodollar business in Tokyo, but globally seen, it is difficult to take dollar business away from London or New York. While global financial transactions of 24 hours benefit the location of Tokyo, still more decisive are accumulated information and experiences, based on competitiveness in goods and services.

The rise of an international currency and formation of the international financial center mutually stimulate each other, and it is hard to distinguish one as a cause from the other as a result. Indeed, seen from the huge surplus in the current account of the balance of payments, Japan

^{1/} A good example is that foreign banks largely lost share in "Impact Loans" (loans in foreign currency) after its liberalization, because these loans are provided mainly to Japanese residents as a substitute for trade finance. See Iwami (1989, p. 96).

Table 13. Liabilities in the eurocurrency market
(Share of currency, year end, Percent)

| Currency | 1979 | 1983 | 1985 | 1987 | 1989 | 1990 | 1991 |
|-------------|------|------|------|------|------|------|------|
| U.S. dollar | 68.4 | 75.9 | 68.9 | 60.3 | 59.6 | 59.3 | 52.7 |
| DM | 17.5 | 10.1 | 10.6 | 13.0 | 13.8 | 15.0 | 14.7 |
| Swiss Franc | 5.7 | 5.7 | 6.2 | 7.4 | 4.6 | 5.2 | 4.8 |
| Yen | 1.4 | 1.9 | 3.7 | 5.7 | 5.0 | 5.2 | 4.8 |
| Pound | 2.1 | 1.3 | 1.5 | 2.5 | 3.2 | 4.0 | 3.7 |
| ECU | --- | 0.6 | 2.8 | 2.8 | 3.6 | 4.4 | 5.6 |

Note: For 1979, 1983, cross-border liabilities in foreign currency only, after 1984 including domestic liabilities in foreign currency. BIS Statistics.

Source: MOF, *Annual Report of International Finance Bureau*, 1986, 1989. Takeda and Turner (1992), p. 74, Table 25.

has a largest potential to be a key country. But it is noteworthy that in sphere of international banking, share of yen as a transaction currency is far smaller than shares of Japanese banks and Japanese market (Tables 9, 12 and 13). This fact is an indirect evidence that other factors than competitiveness of banks (or financial institutions in general) and markets play more important roles.

IV. The Role of a Key Country

As described above, yen is lacking real conditions for a key-currency, compared not only with the dollar, but with the D-Mark. The problem to be considered below is, whether or not the yen should play an active role in the tripolar system, and if yes, what kind of policy is desirable for Japan.

A hypothesis based on stressing real factors is that a policy driving for a key country is irrational, at least in a short-run, since a key-currency is determined by the economic size, foreign trade relations, competitiveness in trade goods and so forth. However, in a following context, economic policy is very important. If a country, capable of having a key-currency, would not pursue a corresponding policy, the international monetary system would not be stabilized. If that country has large incentives in playing the key-role, the world economy would be on a stable basis 1/.

4.1 The international monetary system

In addition to the concept of the international financial system, we define the international monetary system as the key currency cum rules and system of international financial transactions. How these rules and system are formed and sustained, is an important issue in considering the international monetary system.

For the period before the World War I, the above question is not serious, because the international gold standard emerged as a "natural" outcome of economic forces. Other countries than Britain opted for the gold standard in the late 19th century, since global economic transactions were channeled via Britain. In the interwar years and after the World War II, on the other hand, the international monetary system was established through "artificial" cooperations, because the world economy was divided in plural key currencies and international financial centers 2/. In order to stabilize exchange rates and capital flows between those key currencies and

1/ This argument is derived from a reinterpretation of Kindleberger (1973, p. 291ff).

2/ For the cooperations between the Wars, see Brown (1944, Ch. 18 and 19), and Eichengreen (1992, Ch. 6 and 7). As well known, the United States and Britain jointly, as potentially competing rivals, created the Bretton Woods System.

international financial centers, "artificial" endeavors were needed. The role of a key country in the international monetary system is, apart from supplying international liquidity, to formalize "rules" and force other countries to observe them.

From an economic view-point, the key country has to have an advantage in pursuing the corresponding role. These advantages are not to be confined to narrowly economics sense, but including "prestige" and "reputation" as a hegemon like the United States during the Cold War period, and the altruism might hold as well. Applying the concept of "public goods", the stability of the international monetary system may induce free riding and tends to be undersupplied. When the international financial service is regarded as "private goods", on the other hand, the supplier need incentives in forming and sustaining the system 1/.

A condition for an ideal key country is that this country has advantages in sustaining a liberal and open international economic system. A country which depends heavily on international economic transactions, have naturally larger advantages under an open international economic system. Britain before the World War I benefitted by free trade and global capital movements, and was therefore interested in adjusting the external balance of payments, and keeping the stability of her currency. For the United States after the World War II as well, the liberal international economy provided market for its competitive goods and service 2/. But its external economic dependence, expressed by the trade and foreign investments (surplus in current account) relative to GNP, was far smaller than Britain before the World War I (Table 14), and accordingly may have had less interests in external balance of payments. This difference explains why the dollar was provided by the political channels like development aid and military expenditures.

In a longer historical perspective, the "extravagant privilege" of the United States, as de Gaulle named it, was peculiarly a phenomenon of the post-World War II. Britain before the World War I was bound by narrower limits of discretionary macroeconomic policy, because firstly the dependence on external trade, in particular international finance in London, presupposed the stable purchasing power of the pound-sterling, and secondly the pound-sterling stood on the strict gold (coin) standard.

How far does the difference in degrees of the external dependence affect the function of the international monetary system? Considering the fact that the monetary policy stance of the United States changed remarkably

1/ Kindleberger (1988, pp. 189-190) regards the international monetary system as both public and private goods.

2/ Block (1977, pp. 35-36) stressed this interpretation for the United States' role in the formation of international economic system. More generally, see Kindleberger (1981, Ch. 21).

Table 14. Dependence on Foreign Trade of Major Countries (Percent)

Export/GNP

| Country | 1913 | 1929 | 1939 | 1950 | 1960 | 1970 | 1980 | 1991 |
|---------|------|------|------|------|------|------|------|------|
| Britain | 23.4 | 16.9 | 7.9 | 17.0 | 14.4 | 15.6 | 20.6 | 18.2 |
| U.S. | 6.6 | 5.2 | 3.5 | 3.8 | 3.9 | 4.4 | 8.4 | 7.4 |
| Germany | 19.3 | 17.0 | 5.4* | 8.5 | 15.8 | 18.6 | 23.6 | 24.8 |
| Japan | 13.8 | 16.0 | 11.9 | 7.5 | 9.2 | 9.8 | 12.5 | 9.3 |

Import/GNP

| Country | 1913 | 1929 | 1939 | 1950 | 1960 | 1970 | 1980 | 1991 |
|---------|------|------|------|------|------|------|------|------|
| Britain | 28.3 | 24.6 | 14.5 | 19.6 | 17.7 | 17.5 | 21.7 | 20.6 |
| U.S. | 4.6 | 4.3 | 6.6 | 3.2 | 2.9 | 4.1 | 9.8 | 9.0 |
| Germany | 20.5 | 16.8 | 5.6* | 11.6 | 13.1 | 15.5 | 23.0 | 24.2 |
| Japan | 16.5 | 16.9 | 9.5 | 8.8 | 8.6 | 9.6 | 13.6 | 7.0 |

Note: *1938.

Source: C.H. Feinstein, *Statistical Tables of National Income, Expenditure and Output of the U.K. 1855-1965*, Central Statistical Office, *Economic Trends*, US Department of Commerce, *Historical Statistics of the US, Colonial Times to 1970*, *Survey of Current Business*. Deutsche Bundesbank, *Deutsches Geld-und Bankwesen in Zahlen 1876-1975*, *40 Jahre Deutsche Mark*, *Monetäre Statistiken 1948-1987*, BOJ, *Economic Statistics Annual*, *International Statistics*.

between before and after the World War II ^{1/}, the historical change in the macroeconomic policy stance is more important than the characteristics of a certain key country, the dependence on foreign trade for example. Needless to say, most countries had common policy objective of stabilizing aggregate demand in the postwar years. The key country had to continue deficits in the balance of payments, because other countries could not stand decrease of international liquidity. The key country adjusted macroeconomic policy through accelerating or decelerating its monetary expansion.

Under the current floating exchange rates, huge deficits in the current account of the American balance of payments destabilize the dollar exchange rate. In general, floating exchange rates are favored by monetary authorities, because they expect autonomy in macroeconomic policy. However, when the instability of the "non-system" becomes enormous, then policy coordinations for stabilizing the exchange rates will be needed.

The next question is whether or not the "internationalization of yen" contributes to forming the stable international monetary system, and if yes, what kind of incentive Japan has for being a key country: more generally, the cost and benefits of a key country.

4.2 Costs and Benefits

4.2.1 Benefits

Benefits of a key country is often called the "seigniorage" ^{2/}. Firstly, international transactions in the own currency enable to avoid currency risks. Since the use of its own currency is based on the competitiveness in goods and service (including financial business), this benefit is inherent in the key currency. Moreover, the concentration of financial business generates corresponding income and employment. Financial institutions benefit from the easy access to information about the monetary policy stance in their own country, apart from avoiding currency risks.

Since American regulations on the outward capital movements shifted international business to euro-finance market, the United States lost part of the benefits mentioned above. However, so long as the euro-finance in the 1960s was provided mainly by American multinational banks, its income belonged to Americans after all. In the 1980s, on the other hand, as Japanese banks took lion's share of international banking, frictions with Americans as well as British intensified. This suggests that national interests do not disappear even in the sphere of international financial business. To the extent that the dollar remains to be the main transaction

^{1/} See Iwami (1992, Table 6 and 7).

^{2/} This concept is originally applied to domestic phenomenon as causes of inflation particularly in LDCs. See Krugman and Obstfeld (1991, p. 633). The "privilege" of the key country is the same phenomenon on the global level.

currency, another benefit of avoiding currency risks continues to exist for Americans.

The international financial system in the last few decades differs from the former one centered in Britain, in the sense that the market developed outside the key country and the financial institutions of other countries grew rapidly. Income generated by the international business does not belong to the key country, and the benefits in this sense lost significance.

Secondly, the key-country is apt to avoid "adjustment" policy, as the American "benign neglect" policy from the late 1960s through the 1970s was often criticized. Nevertheless, this privilege is not without limits. The "Volker Shock" in the early 1980s was initially aimed at stabilizing the dollar, with tight monetary controls. The benefit mentioned above implies rather that the key country has longer time-horizon in adjustment policy.

Considered in this way, the potential benefits of a key country are smaller than usually anticipated. The key country does not opt for that position, in due consideration of its benefits, but is selected by other countries. The instability of the current international monetary system lies in the fact that the country with less dependence on external transactions, like the United States, is keeping the position of the key country.

4.2.2 Costs

What kind of costs does a key-country have to endure? Firstly, as the N-th currency argument by McKinnon (1979) suggests, no initiative in deciding exchange rate, and secondly, less freedom in macroeconomic policy in order to provide enough liquidity to other countries. Both costs arise from the passiveness of the key country.

The extent of the first cost depends on the level of the exchange rate other countries opt for. Generally speaking, as other countries import more capital and goods from the key country, they would prefer putting limit to depreciation of their currencies. If they export more goods to the key country, their currencies would be depreciated. For the key country, as its dependence on export and price-elasticity of demand for its export are small, the passiveness of exchange rate determination does not make so much burden.

As the United States' dependence on export increased from the early 1980s (Table 14), the burden of the N-th country weights more. But the number of countries pegging their currencies to the dollar has been decreasing, even among LDCs ^{1/}. The latter fact suggests a retreat of the dollar from the N-th position, the burden of which is decreasing for the United States as well.

^{1/} See Aghevli et. al., (1991, pp. 2-3).

For the second cost of passive macroeconomic policy, this dilemma has been also argued as a "privilege", as mentioned above, implying that this aspect has both cost and benefit, or that divided opinions prevail on this problem. Because the key-country is sooner or later obliged to stabilize its currency, the liquidity supply has a limit. If the rest of the world demands liquidity over this limit, it is only when the international monetary system faces a critical situation, like a international financial crisis. Otherwise, the unstable state of the key-currency would cost too much even to other countries.

The related question is whether or not the anti-inflationary stance of a key-country is desirable. The country like Germany 1/ regards the supply of international liquidity as burdensome. Recently, in the summers of 1992 and 1993, the anti-inflation attitude of the Bundesbank caused crises of the European monetary integration. Indeed, the stable purchasing power of the key currency is a prerequisite for the international monetary system, but, if the key country sticks to the unduly tight macroeconomic policy, other countries suffer from a risk that growth potential would be impeded.

For an opposite example, the Bundesbank turned to a more generous stance towards the internationalization of the D-Mark, allowing a series of new financial products and deregulating euro-Mark bond issues since the mid-1980s. In 1984, the withdrawing tax on the bond-interest payment, originally aimed at stabilizing the D-Mark, was abolished. The zigzag attitude of the monetary authority thereafter showed that non-tax system surely promoted international financial business, and as a result, liberalization finally became the principle 2/. The reason is simply that the authority recognized at last that merits of international business in their own currency surpass the cost of currency instability. Nevertheless, it is to be noted that the internationalization of the D-Mark had been well developed even under these regulations, so to speak, overcoming these regulations.

4.3 Possibilities for Japan

Seen from the extent of dependence on foreign trade, Japan is situated between Germany and the United States. Because the United States is the largest trade partner, on both export and import sides, and the largest market for foreign investment, Japan has less incentives for internationalization of its currency than Germany. Japanese manufacturers are reluctant

1/ The background is usually explained as lessons from the hyper-inflations after both the first and the second World Wars. Because the astronomic inflation in the early 1920s appeared about 70 years ago, its influence on the national sentiment would be small, if any. The inflation after the last War was severe in Japan as well, but the Japanese government continued to be more inflation permissive than German. The question why such a difference exists, is worth further research.

2/ Neumann (1986, p. 112). Bundesbank (1985, p. 15).

to make full use of avoiding currency risks, in order to secure shares in the export market. These attitudes surely hinder trade in yen, not only of the real, but also financial transactions based on it. This limit can be attributed to the size of the American economy and Japan's economic dependence on it.

If the yen-transactions grow independently from the dollar, it would be with East Asian countries. The use of yen as trade and reserve currency has been growing in this region, while the share in official reserves of Asian countries shows slight decline in the late 1980s (Table 15). Moreover, as Frankel (1992) stresses, the interest rate and exchange rate movements in these countries interrelate increasingly with Tokyo and yen, respectively, which implies growing capital transactions with Japan and yen's influence on their exchange rate policy. However, this is not caused by the Japanese government's policy, but a natural result of the large Japan's influence on the regional economy.

To note, on the other hand, is the fact that the U.S. dollar is still more widely used than yen in East Asian countries. They export more to the United States (and Canada) than to Japan, with exceptions of China and Indonesia (Table 16). But in Chinese total export, Japanese share has been decreasing, and Indonesian main export to Japan is petroleum, naturally denominated in dollars. The East Asian countries therefore prefer exchange rate policy in accordance with the dollar, which results in larger official reserves in that currency (Table 15). This is another evidence that the size of the U.S. market support the key-position of the dollar. As for relation with Japan, Asian countries largely export in dollars, overall 77 percent and even for manufactured goods 64 percent in 1991, while European countries export manufactured goods to Japan, more in yen than in dollars 1/. Under the trend of yen appreciation, Asian exports in dollars lead to growing market share in Japan, and lower prices for Japanese consumers.

On the import side, East Asian countries, generally speaking, import more from Japan than from the United States (and Canada). For NIES countries, important items are semi-manufactured goods, which are reprocessed and exported mainly to North America, naturally denominated in dollars. If these imports from Japan are still largely traded in dollars, not in yen, East Asian NIES maintain price advantages in the U.S. market, when the yen appreciates 2/.

1/ For currency composition of Japanese trade by partner regions, See Ito (1993, Table 3, 4). European manufactured exports to Japan are likely to be denominated in European currencies, for example, the D-Mark, as well.

2/ Ito (1993, pp. 314-15) discusses this case.

Table 15. Official Reserves in the World and in Asian Countries
(Currency Share, Percent)

| | 1975 | 1980 | 1985 | 1990 | 1992 |
|---------------------------------|------|------|------|------|------|
| All Countries | | | | | |
| U.S. Dollar | 85.1 | 68.6 | 64.9 | 56.4 | n.a. |
| Pound | 4.1 | 2.9 | 3.0 | 3.2 | n.a. |
| DM | 6.6 | 14.9 | 15.2 | 19.7 | n.a. |
| French Franc | 1.3 | 1.7 | 0.9 | 2.1 | n.a. |
| Swiss Franc | 1.7 | 3.2 | 2.3 | 1.5 | n.a. |
| Yen | 0.6 | 4.4 | 8.0 | 9.1 | n.a. |
| Asian Countries | | | | | |
| U.S. Dollar | 68.9 | 52.8 | 56.5 | 61.4 | 61.4 |
| Pound | 5.7 | 7.1 | 9.6 | 9.1 | 8.0 |
| DM | 13.8 | 18.0 | 13.8 | 12.9 | 13.1 |
| French Franc | 1.4 | 1.3 | 0.8 | 0.8 | 0.9 |
| Swiss Franc | 2.7 | 6.8 | 3.6 | 2.7 | 2.9 |
| Yen | 4.3 | 10.7 | 13.3 | 10.2 | 11.5 |
| Selected Asian Countries | | | | | |
| U.S. Dollar | n.a. | 48.6 | 44.8 | 62.7 | n.a. |
| Pound | n.a. | 3.0 | 4.1 | 4.9 | n.a. |
| DM | n.a. | 20.6 | 16.4 | 14.2 | n.a. |
| French Franc | n.a. | 0.6 | 0.9 | 0.2 | n.a. |
| Swiss Franc | n.a. | 10.6 | 4.9 | 0.5 | n.a. |
| Yen | n.a. | 13.9 | 26.9 | 17.1 | n.a. |

Source: IMF, Tavlas and Ozeki (1992, Table 25).

Unfortunately, the data for currency-composition of this trade is not available, but from the overall data of exports from Japan to Asian countries, we can conclude that the more competitive export goods are largely traded in yen (for example, machines in general, around two thirds in 1991), while less competitive exports, such as metal products (in particular, steel), chemicals and textiles, are mostly in dollars. Asian countries themselves are suppliers of these products other than chemicals.

The Japanese monetary authorities resisted to the internationalization of yen for a long time, because it would put additional burden on the monetary policy, for the similar reason to Germany. The Bank of Japan was afraid that arbitrage transactions between domestic and euro-yen market may disturb the indicative policy, in particular intervention in the interbank markets (Bill and Call Markets) and the "window guidance".

But with the recognition that the interest rates and transaction amounts in the euro-yen market are determined by the domestic monetary policy, not in the way *vice versa*, the Bank of Japan progressively changed its attitude. Further liberalization of the financial market affected the authorities' stance as well. Since the Bank of Japan terminated, at least officially, to impose "window-guidance" on bank loans in 1991, the influence from the euro-yen market need not to be worried about.

Since the authority allowed the "internationalization of yen", the international use of the yen was stimulated. Financial deregulations have affected on this process as well. Is it to ease the excessive burden imposed on the dollar and to stabilize the international monetary system as a whole?

For the tripolar currency system of the dollar, the D-Mark (or ECU in the future), and the yen to work smoothly, international coordination of the macroeconomic policy is indispensable. But in view of the trade conflicts among the developed countries, it is hard to believe that monetary cooperation alone can make progress. Indeed, trade conflicts are caused by volatility and misalignment of the exchange rates which deteriorate equilibrium in current account of the balance of payments. In this way, cooperations in spheres of both trade and money are cause and result of each other.

To put an end to the vicious circle, the first step would be to reduce the "twin deficits" of the United States ^{1/}. The international status of the yen, and Japan's role in the international monetary rearrangements will undoubtedly rise, in a mid- or long-run. However, without solving the above basic problem, the diversification of the key currencies will rather destabilize than stabilize the world economy.

^{1/} For my interpretation of the problem, see Iwami (1993b).

Table 16. Foreign Trade Relations of Asian Countries
(Amount: billion dollars, partner share: Percent)

Export

Taiwan

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 5.32 | 15.0 | 38.1 | 13.2 |
| 1980 | 19.84 | 15.8 | 36.6 | 11.0 |
| 1985 | 30.62 | 9.7 | 51.5 | 11.3 |
| 1990 | 67.04 | 17.9 | 34.8 | 12.4 |

Korea

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 5.07 | 18.2 | 34.2 | 25.3 |
| 1980 | 17.45 | 17.5 | 28.4 | 17.3 |
| 1985 | 30.28 | 13.8 | 39.7 | 15.0 |
| 1990 | 64.84 | 16.2 | 32.6 | 19.4 |

China

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 6.33 | 14.2 | 3.2 | 23.3 |
| 1980 | 18.27 | 15.5 | 6.6 | 22.9 |
| 1985 | 27.34 | 9.3 | 9.4 | 22.2 |
| 1990 | 62.09 | 9.9 | 9.0 | 14.5 |

Singapore

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 5.38 | 15.9 | 14.9 | 8.7 |
| 1980 | 19.38 | 14.1 | 13.4 | 8.1 |
| 1985 | 22.85 | 11.5 | 21.9 | 9.4 |
| 1990 | 52.63 | 15.8 | 22.2 | 8.4 |

Table 16. (continued)

Hong Kong

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 4.61 | 30.5 | 29.2 | 6.4 |
| 1980 | 13.67 | 27.2 | 28.1 | 4.6 |
| 1985 | 16.60 | 14.9 | 33.2 | 4.2 |
| 1990 | 29.00 | 24.0 | 31.8 | 5.3 |

Indonesia

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 7.13 | 5.9 | 26.3 | 43.9 |
| 1980 | 21.91 | 6.7 | 19.8 | 49.3 |
| 1985 | 18.59 | 6.4 | 22.0 | 46.2 |
| 1990 | 25.55 | 12.3 | 13.7 | 42.7 |

Import

Taiwan

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 5.99 | 12.7 | 28.6 | 30.5 |
| 1980 | 19.79 | 9.4 | 25.0 | 27.2 |
| 1985 | 20.07 | 12.1 | 25.6 | 27.5 |
| 1990 | 53.42 | 15.8 | 25.2 | 30.0 |

Korea

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 7.27 | 8.3 | 27.9 | 33.4 |
| 1980 | 22.23 | 8.4 | 23.6 | 26.2 |
| 1985 | 31.12 | 12.7 | 22.8 | 24.2 |
| 1990 | 69.58 | 14.0 | 26.4 | 26.7 |

Table 16. (concluded)

China

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | n.a. | n.a. | n.a. | n.a. |
| 1980 | n.a. | n.a. | n.a. | n.a. |
| 1984 | 26.18 | 15.2 | 18.8 | 31.3 |
| 1990 | 53.35 | 17.5 | 15.0 | 14.2 |

Singapore

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 8.14 | 15.0 | 16.2 | 16.9 |
| 1980 | 24.00 | 13.3 | 14.6 | 17.8 |
| 1985 | 26.25 | 13.3 | 15.5 | 17.0 |
| 1990 | 60.65 | 15.4 | 16.6 | 20.1 |

Hong Kong

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 6.76 | 16.5 | 12.5 | 20.9 |
| 1980 | 22.03 | 15.7 | 12.7 | 23.3 |
| 1985 | 29.58 | 13.8 | 9.8 | 23.1 |
| 1990 | 82.50 | 12.2 | 8.5 | 16.1 |

Indonesia

| Year | Amount | Europe | North America | Japan |
|------|--------|--------|---------------|-------|
| 1975 | 4.77 | 21.2 | 15.4 | 31.0 |
| 1980 | 10.83 | 15.2 | 13.9 | 31.5 |
| 1985 | 10.26 | 19.8 | 18.7 | 25.8 |
| 1990 | 21.84 | 21.4 | 13.4 | 24.3 |

Source: UNCTAD, *Handbook of International Trade and Development Statistics*, 1991.

V. Concluding Remarks

The international use of the yen has been developed as deregulation of financial market (including euro-yen) and the cross-border financial business of Japan got momentum, in addition to the real factors of Japan's economic size, competitiveness of trade goods etc. This tendency will be accelerated rather than decelerated in the future. If Japan's surplus in the current account of the balance of payments continues to expand, it will enlarge the need for domestic investors to employ funds, and for foreigners to borrow, in yen. However, there still remain further barriers.

The reason why the international use of the yen is small compared with Japan's economic size, is related to Japan's international economic relations and behavior of private firms. If the economic development in Asian countries, where the share of yen is relatively large, progress more rapidly than other part of the world, the position of yen will accordingly rise. Nevertheless, the real factors hinder the key-currency function of yen compared with the dollar and D-Mark. With the dollar, the gap in the economic size as well as Japan's dependence on the United States is decisive. The advantage of the D-Mark rests on the European economy independent from the United States. The internationalization of the D-Mark has not necessarily been supported by the liberalization of German financial markets, but can be formalized as the real transactions preceded the financial factors.

As for the multi-currency system, the rise of the yen is another side of the unstable dollar the huge American deficits generated and may generate continuously. The diversification of international portfolios will amplify volatility of exchange rates, which intensifies economic conflicts among developed countries. The "extravagant privilege" of the key country, argued under the Bretton Woods System, does not work so much as the American economic power waned, and the stable international monetary system requires efforts for the coordination among major countries on a solid basis.

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