Japan's Experiences under the Bretton Woods System: Capital Controls and the Fixed Exchange Rate *

1. Introduction

Up to the early 1970s, the post-war capitalist economy experienced its "golden age" with a high level of economic growth as well as low rates of inflation and unemployment. How the Bretton Woods System contributed to this performance is discussed in Iwami (1991). This paper reviews the role of international monetary arrangements in the Japanese economy, which showed the highest economic growth rates among the developed countries. Japan joined the International Monetary Fund in August 1952 (under Article 14) and GATT in 1955; her "high growth era"[1] coincided with the liberal international economic framework of the IMF and GATT.

The Bretton Woods Agreement authorized pegged exchange rates and regulations on international capital movements. The Agreement excluded neither revaluations nor devaluations, however. In fact, even some developed countries resorted to the parity changes to recover external balances, and such countries as France and Canada allowed floating exchange rates for a number of years. Japan, on the other hand, stuck to the dollar/360 yen par, adopted in April 1949, until August 1971. Article 8 of the Agreement permitted capital controls in the belief that free capital movements inevitably disturb the maintenance of fixed exchange rates.[2] Among these

* I thank M. June Flanders for comments on the earlier draft.

[1] As widely accepted, this period covers from 1955 to the outbreak of the first oil crisis.

[2] BRYANT (1987, pp. 61-62). This assumption is not as self-evident as the founders of the Bretton Woods System thought. Under the classic gold standard before World War I, the fixed exchange rate system survived several decades without capital controls. The Bretton Woods Agreement was based on the recognition that the international monetary system of the inter-war period collapsed due to "disequilibrating" short-term capital movements. The actual problem was not the capital movements themselves, but the lack of confidence in monetary stability, which led to "hot money".

common attitudes towards capital movements, were there any characteristics of Japanese controls?

Indeed, international financial transactions during the "high growth era" remained on a small scale in Japan, compared with those of the "liberalized and internationalized" 1980s. The closed, controlled system of the reconstruction period was maintained without major modifications, although events such as the liberalization of international trade and foreign exchanges in 1960, the shift to the Article 8 country of the IMF, and membership of the OECD in 1964, constituted successive turning-points. Officially, from the mid-1960s, Japan opened the door to foreign investors, yet allowed only limited access. Why did Japan keep the closed international financial system for a long time, and how was this attitude related to her rapid economic growth? In the following section, we review the balance of payments problems and capital controls, which determined the major course of economic policies in the post-war era. Section 3 discusses the protective effects of this closed system, and the actual situation of short-term capital movements. The role of the fixed exchange rate on Japanese macroeconomic performance is the theme of Section 4. Rather than discussing the fixed exchange rate in general, we consider the macroeconomic implications of the $/360 yen rate. Then, the fact that Japan observed the "rules of the game" is interpreted in terms of her economic growth.

2. The External Framework of the Japanese Economy

2.1 *The Balance of Payments Problem*

The balance of payments situation largely determined the course of Japanese economic policy in the post-war era. While the current balance was in surplus except in the early 1960s, its components differed completely between the first post-war decade and the period after the mid-1960s. The current balance up to the mid-1950s was supported by U.S. economic aid and wind-fall expenditure during the Korean War[3] (see Table 1). The policy makers considered the move

[3] Between 1946 and 1950, U.S. aid amounted to an annual average of 390 million dollars, and American expenditure in Japan during the Korean War (1950-1954) totalled 30 billion dollars (OUCHI, 1971, p. 98). The former figures corresponded to about 6% of GNP, the latter to 4.1% of the aggregate GNP of this period (GNP data from OHKAWA *et al.*, 1974, p. 201). Marshall Aid, on the other hand, was equal to an annual average of 2% of the total national income of recipient countries; the highest figures are 6% for Austria and the Netherlands in 1949 (reported in EICHENGREEN and UZAN, 1991, pp. 2, 29). According to these estimates, U.S. aid and Korean War expenditure could have played the greater role in Japanese reconstruction than the Marshall Aid Program in Western Europe.

from large-scale deficit of the trade balance into surplus as an inevitable task for economic independence. Such slogans as "export or die" reflected the critical economic situation after the war: loss of overseas assets and destroyed production equipment as well as marine shipping.[4] In the early 1960s, although the balance of trade turned into surplus, the ever growing deficit in services made the current balance negative; the main causes were transportation and debt service payments. Besides export-promoting measures, subsidies to the shipping industry were implemented in order to reduce the deficit in the services balance and, since the balance of investment income continued to be negative, the government was against the increase in foreign capital imports. The surplus in official transactions, mostly military ones, continued up to the end of the 1960s. From the mid-1960s, the current balance again turned into surplus, which expanded until the outbreak of the oil crisis. The "ceiling on the balance of payments" was no longer considered restraint on economic growth. As the surplus on the current balance increased, long-term capital flowed out. However, from the mid-1960s to 1972, net long-term capital export did not match the current account surplus; therefore, the positive basic balance of payments associated with net short-term capital import[5] brought about ever growing international reserves (mainly dollars). Fearing that international reserves might deplete, the Japanese government tried to limit capital movements. Nearly half the capital export during this period consisted in trade finance, reflecting the government's endeavour to promote exports.

Why did short-term capital balance remained in surplus? The first answer would be interest-rate differentials; however, the main motive to borrow abroad was the demand for the dollar as a means of trade payments. If the international capital movements had been

[4] *The White Paper of the International Trade and Industry 1949*, abridged in KANAMORI (ed.), 1970, pp. 39-45.

[5] Including "others" in the "balance of monetary movements", *i.e.* changes in the net short-term international positions of foreign exchange banks.

TABLE 1

THE BALANCE OF PAYMENTS

(1946-1973, fiscal year average, million dollars)

	1946-50	1951-55	1956-60	1961-65	1966-70	1971-72	1973
Current balance	145	104	23	-205	1,310	6,241	-3,918
Trade balance	-188	-395	93	494	2,862	8,377	789
Export	395	1,507	3,120	6,116	14,024	27,045	38,943
Imports	583	1,900	3,027	5,622	11,162	18,669	38,154
Services	-68	442	-20	-640	-1,368	-1,807	-4,370
Transport	-94	-177	-292	-470	-890	919	-2,083
Travel/insurance				-39	-126	-558	-1,254
Investment income	-2	-22	-39	-137	-221	275	309
Official transactions	-26	665	429	343	551	649	666
Others	3	-23	-118	-337	-681	-1,254	-2,008
Transfers	401	55	-50	-59	-184	-329	337
U.S. aid	390	32	-	-	-	-	-
Indemnity	-4	-4	-89	-69	-60	-49	-62
Long-term capital	-15	-35	-22	36	-729	-3,803	-9,110
Japanese capital	-20	-73	-148	-383	-1,342	-4,310	-7,688
Foreign capital	4	37	126	419	613	507	-1,422
Basic balance	130	69	1	-169	519	2,438	-13,028
Short-term capital	0	23	-1	83	334	2,633	2,283
Trade finance				74	308	2,467	2,241
Errors & omissions	15	1	28	6	112	432	-2,662
Overall balance	145	93	28	-80	1,028	5,503	-13,407
Monetary movements:							
International reserves *	108	71	211	22	670	6,334	-5,699
Others	37	22	-183	-67	408	-751	-7,708

Notes: * Including changes in IMF positions and SDR.

Sources: AMANO, KAJIN (ed.), *Zusetsu Kokusaikinyu* (International Finance Illustrated); ZAIKEI SHOHO SHA (1974); BANK OF JAPAN, *Kokusaishushi Tohkei Geppoh* (Balance of Payments Monthly); MITI (1967); YAMAZAWA and YAMAMOTO (1979).

liberalized completely, interest-rate differentials would equal forward-spot spreads of foreign exchange rates, and the borrowing cost would be the same on domestic and foreign money markets. In fact, because of capital controls, the interest parity condition did not hold, and up to the mid-1960s the effective interest rates were higher at home than abroad. While interest-rate differentials induced capital imports, borrowing abroad was restricted and short-term capital movements showed a peculiar distortion, as discussed in Section 3.

In 1984, when the Japanese current account surplus increased rapidly and foreign countries started to regard it as a global disequilibrium factor, the *White Papers* of both the Ministry for International Trade and Industry (MITI), and the Economic Planning Agency referred to the stage theory of balance of payments.[6] Table 2 shows that the four major countries followed similar paths, as the above theory predicts. Japan, in particular, seems to be a good example, in that the current account deficit gradually decreased, and later increased its surplus.[7] The United States seems to have reached the peak in the 1920s, and Germany in the 1950s. Britain, on the other hand, shows an abnormally large-scale surplus in the 1950s, but we could also interpret its movement as a wave with a peak in the 1900s and a trough in the 1930s. Whether or not the stage theory actually holds requires another paper to discuss it theoretically as well as empirically. However, it must be remembered that the theoretical preposition of free capital movement is not always satisfied historically. The most liberal phase covered the years under the classic gold standard, while in the inter-war period[8] Britain and most of the developed countries in the Bretton Woods System more or less imposed capital controls. Even Japan imported a far greater scale of capital, an annual average of 3% of GNP in the early 1900s, to finance the Russo-Japanese War expenditure. In the 1930s, she exported

[6] The policy implications was that the current account surplus was historically inevitable and that Japan should not try to reduce her surplus in vain, but to recognize the role of a creditor nation.

[7] We must take into account that, because of U.S. economic aid and the Korean War, the current account surplus expanded more in the 1950s than the 1960s.

[8] Britain restricted long-term capital exports in the 1920s and further strengthened its control in the 1930s. See, for example, ATKIN (1977, pp. 17ff).

long-term capital at about 2% of GNP, mainly to Manchuria.[9] Figure 1 reports the current and long-term capital accounts by annual data, showing an abnormally high ratio to GNP before World War I and in the 1930s.

TABLE 2

HISTORICAL CHANGE OF CURRENT ACCOUNTS AND LONG-TERM CAPITAL FLOWS
(UK, USA, Germany and Japan: year average, %)

	1900-13	1920-29	1930-39	1950-60	1960-70	1970-85
Britain						
Current balance	4.97	2.58	–0.93*	0.99	0.07	0.24
Long-term capital balance	–5.49	–2.35	–0.26*	–0.59	–0.37	–1.45
Gross capital movements	5.49	3.30	2.75*	–	3.03	6.09
The United States						
Current balance	1.14	1.65	0.74	0.68	0.76	–0.14
Long-term capital balance	–0.14	–0.71	0.31	–0.45	–0.24	–0.12
Gross capital movements	0.85	1.09	0.42	0.61	1.01	1.85
Germany						
Current balance	–3.80**	–1.41***		1.83	0.65	0.75
Long-term capital balance	–0.94	–0.77***		–0.27	–0.68	–0.07
Gross capital movements	–	0.99***		0.61	2.09	3.26
Japan						
Current balance	–1.88	–1.52	–0.12	0.68	0.16	0.90
Long-term capital balance	2.71	–0.68	–2.37	–0.18	–0.18	–1.28
Gross capital movements	3.51	1.21	3.14	0.71	1.13	2.43

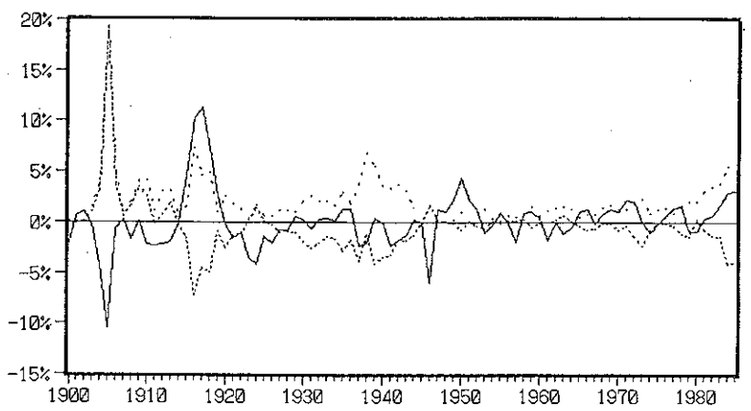
Notes: Gross capital movements = long-term capital export + long-term capital import.
* 1930-1938.
** Trade balance only.
*** 1925-1935.

Sources: Britain – C.H. FEINSTEIN, 1972 *Statistical Tables of National Income, Expenditure and Output of the U.K. 1985-1965*; CENTRAL STATISTICAL OFFICE, *Economic Trends*; M. SIMON, 1968 "The pattern of New British Portfolio Foreign Investment, 1865-1914", in A.R. HALL (ed.), *The Export of Capital from Britain 1870-1914*; R.S. SAYERS, 1976 *The Bank of England*; CENTRAL STATISTICAL OFFICE, *Economic Trends, United Kingdom Balance of Payments*.
After 1960, excluding changes in assets and liabilities of banks.
U.S. - U.S. DEPARTMENT OF COMMERCE, 1975 *Historical Statistics of the United States, Colonia Times to 1970, Survey of Current Business*.
After 1971, excluding changes in assets and liabilities of banks.
Germany - DEUTSCHE BUNDESBANK, 1976 *Deutsches Geld- und Bankwesen in Zahlen 1876 - 1975. 40 Jahre Deutsche Mark, Monetäre Statistiken 1948-1987*, 1988.
Japan: OHKAWA *et al.* (1974); YAMAZAWA/YAMAMOTO (1979); BoJ, *Keizai Tohkei Nenpo* (Economic Statistics Annual), various issues.

[9] Of the foreign capital liabilities in 1910, more than 80% consisted of National Bonds denominated in foreign currencies (TERANISHI, 1982, p. 213, Table 3-22). For the long-term capital movements in the 1930s, see, for example, TERANISHI (1989, p. 216). That Japan's business cycles synchronized internationally before World War II and that this characteristic did not reappear until the 1970s (FUJINO, 1990, pp. 290, 519-521) may be a reflection of the difference in regulatory measures between the two periods.

FIGURE 1

CURRENT AND LONG-TERM CAPITAL BALANCE (1900-1985)
Ratio to GNP



——— current balance
..... long-term capital balance
– – – – – gross long-term capital movements

Sources: YAMAZAWA-YAMAMOTO (1979); OHKAWA *et al.* (1974); BoJ, *Keizai Tokei Nempo* (Economic Statistics Annual).

Another interesting point is that the long-term capital movements of both the United States and Japan were on a similar scale, measured by the sum of exports and imports relative to GNP, in the 1950s and 1960s.[10] While the United Stated introduced a series of regulations on capital outflow in the late 1960s, her capital transactions, generally speaking, remained more liberal than the Japanese. The similar scale of both countries should be attributed to factors other than capital controls. The gap between Japan and West Germany, on the other hand, must be more or less a result of the different degree of regulation, since the latter liberalized not only the current account, but also capital account transactions, when the D-mark recovered convertibily in 1958.[11]

[10] Furthermore, the sum of international assets and liabilities, which correspond to the gross stock of capital movements, relative to GNP is 30% for the United States and 24% for Japan in 1972 (BRYANT 1987, Tables 3-6, 3-11).

[11] DEUTSCHE BUNDESBANK (1985, p. 16).

2.2 *Capital Controls*

The main features of Japan's post-war international economic relations can be summarized as: 1) capital controls, and 2) the fixed exchange rate. The termination of multiple exchange rates and the pegging of the yen at $/360 in 1949 was a major turning-point for Japan to participate in the world economy, and foreign trade was privatized in the following year.

The theory that feature 1) is a prerequisite for feature 2) was widely accepted, and both the Foreign Exchange Law of 1949 and the Foreign Capital Law of 1950 constituted the legal framework for Japan. Their internal counterpart, that is, domestic financial regulations, were associated with the policy of allocating limited funds to strategic industries; priority finance was another side of the Keisha Seisan Hohsiki (priority production system). How the capital controls contributed to the economic recovery program is still unclear, however.

While capital controls aimed at solving the balance of payment problem, capital imports could increase surplus (decrease deficit) above the line of the official settlements balance, at least in the short run. Therefore, the liberalization could have been a rational policy choice. The stage theory of balance of payments tells that in the initial phase, when investment opportunity surpasses possible savings, a higher expected rate of return induces net capital inflow, as the United States, Canada and Australia demonstrated in the 19th century. Korea since the mid-1960s is another example. Why did Japan not choose an open-door policy toward international capital movements?[12]

A hypothesis: a less developed country hesitates to be wholly involved in the international economic system generated by developed countries. Despite recognizing the significance of imported capital for domestic economic development, it is afraid of political and economic dependence on foreign countries.[13] Unless a country lives within an autarky, foreign trade is indispensable and hence trade finance constitutes the main stream of international capital transactions.

[12] Collins (1988) stresses these differenes between Japan and Korea, despite common features of rapid economic growth.

[13] The Japanese discussions on the deregulation of capital import contained this kind of anxiety (Tsuruta 1982, pp. 128-130). The severe critique to this way of thinking was Komiya (1967).

Nevertheless, since Japan imported large scale capital even before World War I, the capital controls after World War II cannot be attributed to the general tendency of the developing countries.

Another hypothesis: domestic savings being insufficient, the necessary means to guide capital to the key industries was regulation of the financial market. If the interest rate is set too low, demand for capital surpasses its supply. The allocation of limited funds is another side of the low interest rate policy. The regulation on capital outflow is rational when the artificially determined interest rate is lower than the equilibrium level under the free capital movements. This explanation is related to a question concerning the post-war financial regulations: one on interest rates and the other on business segmentation; the former is sometimes regarded as the "artificially low interest rate policy". The issues at stake are how these regulations contributed to the rapid economic growth, and whether or not the priority allocation of funds resulted from government policy.[14] The important question is to what extent the concept of the "low interest rate-policy" is correct. Horiuchi (1984, pp. 3-5) argues that since nominal and real interest rates in Japan stayed higher than in other major developed countries in these years, the supposed "low interest rate" did not actually exist. It is quite natural that the interest rates in a rapidly developing country like Japan remained high, reflecting the expected high return and high level of demand for funds.

Indeed, the international comparison of interest rates is not so simple, because exactly substitutable financial assets do not exist in

[14] Teranishi (1982, in particular Ch. 8), in considering the financial regulations as a component of growth-stimulating policy, stressed the significance of the maturity transformation in which the long-term credit banks acquired the major part of their funds from the short-term financial institutions (city banks) in order to finance key industries. The city banks, in turn, depended on the liquidity supply from the Bank of Japan which lent at a lower rate than the unregulated call money market, and thus provided a sort of subsidy to the city banks.

Horiuchi (1984) and Horiuchi - Otaki (1987), although rather sceptical about this argument, admitted that government intervention had a great influence on fund allocation in the reconstruction period after the war. Even during the high growth era, bond issues were subject to the discretionary management of the Bond Issue Council, favouring those with government guarantees and issued by financial institutions. Among the non-financial firms, major issuers were steel, transportation, electricity and machine industries. In this sense, a non-market mechanism played a role in the allocation of funds.

However, the largest financial instrument of the growing industries, namely bank lending seems to have followed banks' own decisions independent from the government, whereas the contributions of semi-official finance for foreign trade by the Bank of Japan (BoJ) and ship-building finance by the Export-Import Bank of Japan (EIBJ), should not be underestimated.

different countries, due to the country risk. Even for the standard interest rate like prime rates, foreign borrowers generally have to pay more because of the risk premium. Thus, despite higher domestic interest rates, Japanese firms could not necessarily afford to reduce borrowing costs as much as the interest-rate differentials would imply. Nevertheless, they could have acquired cheaper funds in foreign financial markets than at home.

The regulations on capital movements were not designed, however, after due consideration of both their costs and benefits. Besides the anxiety about "disequilibrating" short-term capital movements (hot money), the international long-term capital market had not recovered enough from the defaults of the 1930s. In the circumstances, capital controls seemed to the Japanese government to be a natural option. Their rather unexpected result was the undervaluation of the yen.

But in the late 1960s, as we shall see in the next section, the short-term interest rate in Japan declined to a lower level than abroad, and the current account surplus generated potential pressure for a larger scale of capital export.

3. Functions of a Closed Financial System

After the mid-1960s, when the so-called liberalization of capital (in fact, deregulation of inward foreign direct investments) commenced, the next turning-point was the breakdown of the fixed exchange rate system. Thereafter, capital controls were relaxed continuously until the amendment of the Foreign Exchange Law of 1980 and the Yen/Dollar Committee of 1984, which largely facilitated the growth of international financial business in Tokyo. We discuss below how the closed financial system functioned, also taking into account its gradual modifications.

3.1 *Foreign Exchange and Foreign Capital Laws*

The Foreign Excange Law (1949), together with the Foreign Capital Law (1950), forbade international financial business in principle, and government ordinances gradually allowed necessary transactions. These procedures only disappeared in 1980 with the amended Foreign Exchange Law; until then, the government intervened in foreign transactions at its discretion. Furthermore, not only in the short run, but also in view of the long-run effect on the balance of payments, the government made use of the Foreign Exchange Law to protect national industries. Based on this law, allocations of scarce foreign exchange limited the import of manufactured goods and favoured key industries for importing materials and technology. These measures were applied to the steel and computer industries, for example.[15]

The Foreign Capital Law, on the other hand, formally aimed at promoting capital import, as long as it contributed to the economic independence and development of Japan. But, for fear that the debt service and capital outflow would deteriorate the balance of payments, the measures actually taken were very restrictive. An example is the "Yen-denominated investments" of 1956-1963, which allowed inward direct investments almost without controls, on the condition that non-residents would not remit debt-service abroad (Tsuruta, 1982, pp. 116ff). When Japan accepted Article 8 of the IMF Agreement, the "Yen-denominated investments" system was finally terminated, but some non-residents complained that the strict application of the Foreign Capital Law subsequently rendered investments in Japan more difficult.

It is possible that the government applied capital controls for the sake of protection rather than the supposed balance of payments problem. Since 1967, the first year of deregulation on inward investment, it took a long time for the open-door policy to take full effect, until the total liberalization in 1973. Liberalization for individual industries were implemented as follows: 1971 for automobiles, 1974 for integrated circuits, and 1975 for computers.[16] In order to show the balance of payment considerations, Figure 2 gives the authorized amount of capital import with major components of the balance of payments. The changes in international reserves correlated closely with the current balance until 1962 or 1963, which suggests a limited amount of international capital transactions. The time series of the authorized capital import, on the other hand, increased continu-

[15] See Komiya *et al.*, eds. (1988, pp. 158, 289-290, 356).

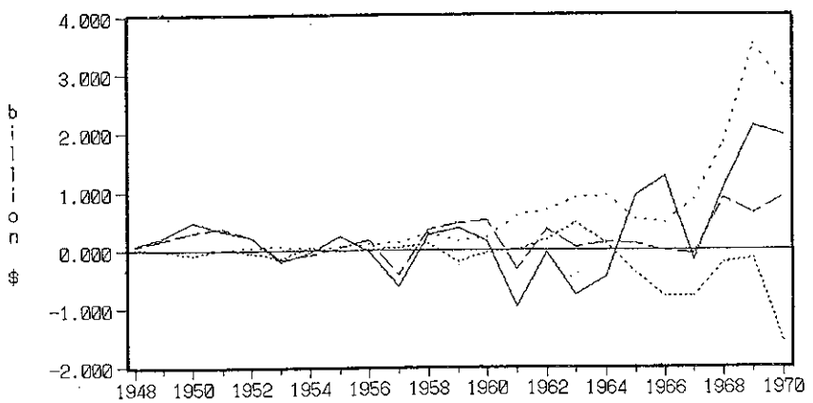
[16] Komiya *et al.*, eds. (1988, pp. 163-166). For the liberalization of inward direct investments, see also Tsuruta (1982, pp. 115ff).

ously with exceptions of temporary declines in 1965 and 1966. The balance of payments seems to have had little, if any, influence on the actual management of the capital import authorization.

The Foreign Capital Law did not aim solely at limiting capital import. Table 3 shows the components of industries which imported capital. It is not clear whether larger amounts of borrowing than stock acquisitions reflect the government's protective policy against take-overs by non-residents. It is well known that the "liberalization of capital" stimulated mutual stock-holdings between domestic firms. The industry subgroup suggests the existence of a priority policy: machines (15.9%), transport/communications (13.3%) electricity/gas (12.9%), oil refineries (12.5%), metal (11.9%). The second and the third group constitute industrial infrastructures; the other three were the main targets of the post-war industrial policy. Since the interest rates stayed lower abroad than at home, capital imports undoubtedly benefitted the recipient industries. The actual management of the

FIGURE 2

BALANCE OF PAYMENTS (1948-1970)
billion dollars



——— current balance
..... long-term capital balance
--------- authorized capital import
– – – – – changes in international reserves

Source: BoJ, *The Economic Statistics Annual,* various issues, *Gaishi Donyu Nenkan.*

TABLE 3

THE FOREIGN CAPITAL IMPORT OF VARIOUS INDUSTRIAL SECTORS 1950-1967
(Fiscal year, million dollars)

Sector	Borrowing	Stock-acquisition	Bond-issue	DAR	Total	%
Machine	588	81	117	53	839	15.9
Metal	590	23	13	–	626	11.9
Chemical	366	87	31	–	484	9.2
Oil refinery	567	94	–	–	661	12.5
Textile	101	2	38	–	141	2.7
Construction	483	1	–	–	484	9.2
Gas/electricity	658	–	–	22	680	12.9
Transport/communication	582	1	121	–	704	13.3
Trade	9	13	23	2	47	0.9
Finance	28	–	100	12	140	2.7
Others	129	41	306	–	476	9.0
Total	4,102	344	748	89	5,282	100.0

Source: BoJ, *Gaishi Donyu Nenkan* (Annual Report of Foreign Capital Import), 1968-69, p. 16.

Foreign Capital Law thus contributed to the allocation of cheaper funds to the key industries, associated with various forms of "control over private business".[17]

3.2 *Trade Finance*

After the single foreign exchange rate was introduced, the Foreign Exchange Bank Law of 1954 set the basis for the development of international finance, mainly trade finance, in a similar way to the pre-war years. The former Yokohama Specie bank was transformed into a Specialized Foreign Exchange Bank (the Bank of

[17] In the 1960s, MITI resisted the amendment of the Foreign Exchange and Foreign Capital Laws, because the bureaucrats feared the subsequent loss of control over the companies concerned, according to evidence by the former director of the International Finance Department of the Ministry of Finance (MOF) (EKONOMISUTO, 1984, pp. 380, 386).

Tokyo), and other banks engaged in international business received the status of authorized foreign exchange banks. The basis thus created survived through the high-growth period, and its main features were dependence on finance by the Bank of Japan, on the export side, and the Bankers' Acceptance (BA) market in the United States on the import side. The Bank of Japan provided the Loans against Foreign Exchange Bill (1953), which was replaced by the Loan Facilities of Foreign Exchange Funds (1961), and later compensated by the Foreign Exchange Purchase System (1965) and, despite rare use, there also existed the Stamp Bill System (1947) and the Import Bill System (1950)[18] for import finance.

The "Loans against Foreign Exchange Bill", later "Loan Facilities", was a Bank of Japan system which provided yen funds against foreign currency bills that foreign exchange banks had purchased, at lower rates than the domestic market. Since foreign exchange banks had more claims than liabilities in foreign currency, the "Foreign Exchange Purchase System" enabled them to sell their bills to the Bank of Japan, in order to avoid the currency risk. Although the foreign exchange banks could have sold future payments in the forward market, the spot-forward spreads typical in those years (yen discount) would have caused them losses. The institutional import finance was to lend foreign currency at a favourable rate corresponding to the usance-finance, since Japanese import was settled at sight in the 1950s. However, the government often intervened to restrict imports for the sake of the balance of payments, and accordingly the import finance system was only rarely used. In the 1960s, on the other hand, Japanese imports shifted to the finance by usance bill, most of which was rediscounted in the New York BA market, and in the late 1960s, as the interest-rate differentials between the United States and Japan became smaller and sometimes in favour of Japan, the institutional import finance lost its significance almost completely. The mid- and long-term finance was undertaken by the Export-Import Bank of Japan, which mainly provided funds to the ship-building and plant-construction industries (Table 4). Between 1954 and 1967, its export finance was charged the minimum rate (4%) that the corresponding law allowed. The Bank itself borrowed funds at 6.5% on average, thus subsidizing more than 2% annually (Export-Import Bank, 1983, p. 128). Ships constituted

[18] For the trade finance system, in particular, institutional finance and the relationships to the BA market, see Okuda (1986), Ohsa (1989) and BoJ (1985, pp. 588-595).

10% of total exports in the late 1950s, and 7-8% in the 1960s, representing the exports of "heavy and chemical industries" in the high growth era (see Table 5).

The mid- and long-term finance was mainly provided to big firms, while the institutional short-term finance enlarged the borrowing possibilities of the medium- and small-size firms (Oka, 1972, p. 171). Indeed, official institutions for trade finance are not typically Japanese devices, but official support for short-term finance is confined to France and Japan among the developed countries (Ministry of Finance, 1970, pp. 292-293).

These financial facilities correspond to the stage of current account deficit since they constituted important measures to promote exports. In the 1950s, even under the tight monetary policy, export finance was provided at favourable terms, and after 1955, when the official support to finance domestic bills was abolished, export finance became the mainstream of institutional finance.[19] But later, as

Table 4

THE COMPOSITION OF FINANCE PROVIDED BY THE EXPORT-IMPORT BANK OF JAPAN

(100 million yen, % in perentheses)

	1950-1956	1957-1967	1968-1973
Export finance	1,908 (99)	13,163 (76)	19,173 (61)
Ships	1,334 (69)	8,393 (48)	11,009 (35)
Plant construction	574 (30)	4,770 (28)	8,164 (26)
Technology cooperation finance	–	83 (0)	–
Import finance	1	165 (1)	3,749 (12)
Foreign investment	19	1,035 (6)	4,728 (15)
Loans	–	2,874 (17)	3,937 (12)
Total	1,928 (100)	17,320 (100)	31,585 (100)

Source: EIBJ (1983), Tables 1-1, 2-2, 3-15.

[19] The Loans of Foreign Exchange Fund amounted to more than 50% of total BoJ loans in 1955, and continued to be that range even in 1969 and 1970 (Ohsa, (1989, p. 428, Table 62).

TABLE 5

THE COMPOSITION OF JAPANESE FOREIGN TRADE (%)

Export	1950	1960	1970	1980
Textiles	48.6	30.2	12.5	4.8
Metal & products	19.4	13.8	19.7	16.4
Iron & steel	8.8	9.6	14.7	11.9
Machine/equipments	10.5	22.9	46.3	62.8
Transport equipments	5.0	10.7	17.8	26.5
Automobiles	–	2.6	6.9	17.9
Ships	3.2	7.1	7.3	3.6
Electric machines	1.4	6.8	14.8	17.5
Import	1950	1960	1970	1980
Foodstuffs	33.3	12.2	13.6	10.4
Raw materials	56.6	48.3	35.4	16.9
Mineral fuels	5.5	16.5	20.7	49.8
Crude oil	2.5	13.1	11.8	37.5
Manufactured products	3.4	22.1	30.4	22.8
Chemicals	2.6	5.9	5.3	4.4
Machine/equipments	0.8	9.0	12.2	7.0
Others	–	7.3	12.9	11.4

Source: MITI (1967), *White Papers of Foreign Trade.*

the current account surplus came under attack by foreign countries, import finance was reintroduced by the Loans of Import Fund System in 1970, and export finance facilities were terminated in 1972.

3.3 *International short-term capital movements*

Even before Japan applied Article 8 of the IMF Agreement, regulations on the foreign exchange business had been temporally relaxed. Free Yen Accounts for non-residents (commenced in July

1960), for example, allowed convertibility of the yen on the condition that non-residents held payment account for current transactions at a foreign exchange bank. As limits on foreign borrowing without a mortgage and on total spot holdings of foreign exchanges were abolished, transactions of foreign short-term capital were facilitated.

Until the late 1960s, short-term capital import took the form of trade finance (see Table 1). The so-called Acceptance System was usually to rediscount import bills, which foreign exchange banks had bought, in the BA Market of New York. Even the main type of import finance, the Domestic Loan System, needed foreign borrowing in which foreign exchange banks used to issue refinance bills on U.S. banks. Thus, Japan's import finance depended so heavily on the BA Market in the United States that around half of that market consisted of Japanese bills (Okuda, 1986, pp. 93-96). Whether to borrow in the BA market or in the domestic market ("Yen shift") naturally depends on the cost differentials between both markets. However, if capital transactions are under control, foreign exchange banks cannot decide which market to choose by the cost differentials. In other words, the degree of liberalization can be measured according to what extent the interest parity theorem actually holds.

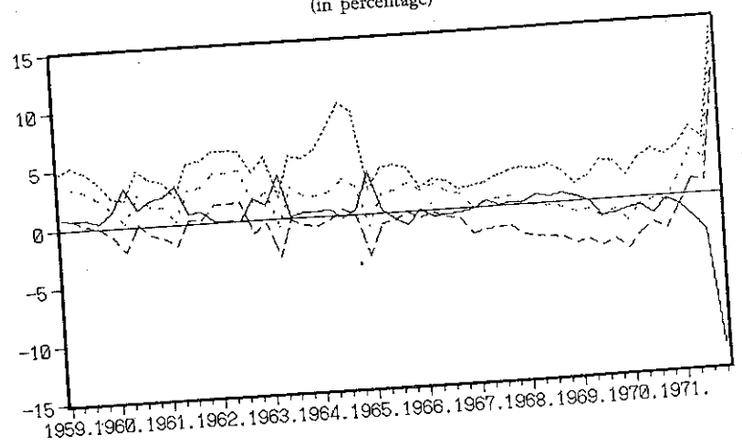
Figure 3 shows covered short-term interest-rate differentials, associated with spot-forward spreads as a reference. Among the three differentials, the most appropriate for considering trade finance is (3), which reports the gap between import usance rates and discount rates charged on discountable bills at the Bank of Japan. Differential (2), on the other hand, has the BA rate in New York for comparison. The actual costs for Japanese traders was not the BA rate, but the usance rates on which foreign exchange banks in Japan imposed certain margins (their own plus commissions changed by U.S. banks: approximately 2% in total) above the BA rates. Japanese traders usually had no direct access to the BA Market. (1) shows differentials in the short-term rates of return between the call rate in Japan and the TB (Treasury Bill) rate in the United States.

The importers compared the domestic interest rate of the yen and the covered interest rate of the dollar. The forward spot-spreads stayed plus (forward discount for yen), at times as much as 3-4% at an annual rate in the early 1960s, while they declined rapidly in the early 1970s when the yen revaluation was widely anticipated. Differential (3) turned definitely to minus from mid-1960s on, which promoted the "Yen shift" in trade finance. The government and the Bank of

FIGURE 3

COVERED SHORT-TERM INTEREST-RATE DIFFERENTIALS (1959/I-1971/IV)

(in percentage)



——— forward-spot spreads
..... differential (1)
---------- differential (2)
- - - - - differential (3)

Note: Forward-spot spreads are calculated from three-month forward exchange rates, and then converted to annual rates. Plus sign means forward yen discount, minus sign forward yen premium. Differential (1) = call rates (over month) – TB rates (90 days), differential (2) = Discount rates for the bills discountable at BoJ (over three million yen) – BA rates (90 days), differential (3) = Discount rates for the bills discountable at BoJ (over three million yen) – import usance rates (three months with L/C). Interest rates and foreign exchange rates are all at the beginning of each quarter.

Sources: *Gaitame Nenkam* (Foreign Exchange Annual), BoJ, *The Economic Statistics Annual,* various issues.

Japan restricted the "Yen shift" from 1965 to early 1966, on the grounds that the international reserves were not sufficient. Foreign criticism of Japan's current account surplus and ever increasing international reserves induced authorities finally to take a generous attitude towards the "Yen shift" in 1968-1969.[20]

If the interest arbitrages took place on a large scale, the interest differentials would come close to zero. Nevertheless, the differentials of not only (3),(2) but also (1) do not show such tendencies, suggesting the continued existence of strong regulations on short-term capital transactions. For short-term fund employment, the Japanese market

[20] See OHSA (1989, pp. 86-87), also BoJ (1986, pp. 267-270).

increased relative profitability after 1969, as the movement of differential (1) shows. Since Japan's current account surplus, and hence possibilities of the yen revaluation, increased, those regulations on capital transactions, in effect, put a brake on the rise of the yen exchange rate.

4. The Fixed Exchange Rate and the "High-Speed Growth"

4.1 *The "Undervaluation" of the Yen*

While the pegging of the exchange rate was inevitable under the Bretton Woods System, developing countries in general tend to opt for a fixed exchange rate, regardless of exchange rate systems. They prefer to peg to a certain country's currency, usually the economically most important country, and whether or not that country fixes its exchange rate to another currency does not necessarily matter. Under the current floating exchange rates, a number of LDCs peg to the dollar. Whether the fixed rate is undervalued or overvalued depends on the type of economic transactions with the pegged country. If the country imports capital on a large scale, it would resist the undervaluation due to debt-servicing costs. The country regulating capital import, on the other hand, would avoid overvaluation for the sake of export growth. Which did post-war Japan prefer?

The resistance to the "undervaluation" seemed to be weak because of capital controls. Since the prices of imported materials and fuels, which constituted the major part of Japanese imports, showed a continuous decline relative to manufactured goods,[21] the "undervalued" yen would not have been a burden on the balance of payments, but rather an instrument to stimulate exports. Another point to mention is why the dollar became the main transaction currency for Japan. The trade with Asian countries, in particular with Commonwealth countries, was largely transacted in sterling, and the share of sterling exports was nearly equal to dollar exports in the late 1950s.[22] In fact, U.S. economic aid during the reconstruction period and the

[21] NAKAMURA (1981, p. 63). The best example is crude oil, the import price of which actually declined as follows: $ 14.9/Kl in 1960 and $ 11.3/Kl in 1970. BoJ, *The Economic Statistics Annual of 1974,* p. 205.

[22] In 1950, 47% of total export went to the dollar area, 29% to the sterling area, and 24% to the open account area. 44% of total import came from the dollar area, 31% from

windfall demands of the Korean War promoted transactions in the dollar, while the sterling had the disadvantage of non-convertibility.

The major payment problem of those years is illustrated most clearly by the cotton textile industry, which imported raw materials from the dollar area and exported manufactured goods to the sterling or the open account areas. How to deal with resulting sterling balance was the typical issue of international financial management[23] until the mid-1950s. After 1958, when the West European currencies, including the sterling, recovered convertibility, the trade with the former sterling area became similar to that in dollars, because the sterling acquired could be freely converted into dollars. Thereafter, as the trade in dollars also increased its share in the Asian region, and the trade finance in the New York money market became more important, the dollar stabilized its position as the key currency for Japan.

A more important question is whether the parity of $/360 yen was an "undervaluation" or an "overvaluation". Another question is which year should be the benchmark for measuring real exchange rate. The parity determined in April 1949[24] was maintained until August 1971. Because the inflation rates in the meantime should have differentiated internationally, the real exchange rate would have changed, despite the fixed nominal rate. Table 6 shows that the average CPI (Consumer Price Index) inflation rate for 1960-1970 in Japan is the highest among the developed countries. As the rapid growth stimulated an increase in the wage rate and real estate price, prices of non-tradables (for example the services) increased more than tradables, because the former had more difficulties in achieving productivity growth. The theory of "productivity (growth) gap inflation",[25] a well known explanation for the inflation gap between

the sterling area, 25% from the open account area. In 1957, on the other hand, 46% of total exports went to the dollar area, 44% to the sterling area, 10% to the open account area. 56% of total imports came from the dollar area, 37% from the sterling area, and 7% from the open account area. MOF, *Monthly Report of the Public Finance and Banking Statistics*, 1952 No. 28, pp. 58-59, 1957 No. 88, p. 23.

[23] Economic Planning Agency (1972, p. 68); BoJ (1985, pp. 414ff).

[24] Shortly before setting the parity, the Japanese government considered the proper exchange rate for imports as 130 yen, and 330 yen for export (Economic Planning Agency, 1960, p. 198). According to these rates, the parity of 360 yen would undoubtedly have been an "undervaluation". Nevertheless, because of various price controls in this period, the PPP does not hold in theory. The government had artificially applied higher exchange rates for imports, in order to sell imported food and materials at a lower yen price at home, thus providing subsidies. See also footnote 26.

[25] The best reference is Takasuga (1972). This theory assumes that the import is restricted, while the classic statement by Balassa (1964) discusses the change in real exchange rates from the inflation differentials between tradables and non-tradables.

Table 6

INTERNATIONAL DIVERGENCE OF INFLATION RATES
(annual average, %)

CPI	1950-1960	1960-1970	1950-1970	1970-1980
United States	2.09	2.75	2.42	7.82
Japan	4.01	5.74	4.87	8.97
Germany	1.88	2.59	2.23	5.08
France	5.58	4.04	4.81	9.63
Britain	3.33	4.05	3.69	13.09
Italy	3.15	3.64	3.39	13.97
Canada	2.20	2.72	2.46	8.04
GDP Deflator	**1950-1960**	**1960-1970**	**1950-1970**	**1970-1980**
United States	2.61	3.10	2.86	7.39
Japan	3.67*	4.30	4.09**	7.62
Germany	2.84	3.71	3.27	5.31
France	6.03	4.35	5.18	9.49
Britain	4.08	4.23	4.16	13.95
Italy	3.19	4.50	3.84	16.40
Canada	3.43	3.01	3.22	8.76
WPI	**1950-1960**	**1960-1970**	**1950-1970**	**1970-1980**
United States	1.50	1.52	1.51	9.31
Japan	2.21	1.28	1.75	7.53
Germany	2.03	1.32	1.68	5.10
France	5.00	2.86	3.92	8.07
Britain	2.87	3.08	2.98	13.57
Italy	0.54	2.49	1.51	15.42
Canada	–	1.77	–	9.68
EPI	**1950-1960**	**1960-1970**	**1950-1970**	**1970-1980**
United States	1.26	1.52	1.39	14.55
Japan	0.29	0.28	0.28	3.69
Germany	3.89	0.76	2.31	5.15
France	4.80	2.49	3.64	9.14
Britain	2.60	3.11	2.85	14.51
Italy	-0.55	0.55	0.00	16.14
Canada	1.28	2.16	1.72	11.29

Notes: Inflation rate is calculated as log (1 + p) = (logPt – logPo) / t; p = average inflation rate; Pt = Price index of the t-th year; Po = Price index of the benchmark year.
* 1955-1960.
** 1955-1970.

Source: IMF, International Financial Statistics, Supplement 1987.

the WPI (Wholesale Price Index) and the CPI in those years, is basically the same as the argument above. However, it is worth noting that the low productivity, and hence the higher price increase of a good in the CPI basket, if it is tradable, would lead to import and reduce the inflation rate of that good. Contrary to the CPI, quite remarkable is the lowest EPI (Export Price Index) inflation rate of Japan in the 1960s and 1970s, the second lowest after Italy in the 1950s. The WPI inflation rate in Japan is also the lowest in the 1960s, but the inflation gap with other countries is larger for the EPI.

If the inflation rates in Japan had been low for every price index, one of the major reasons could have been anti-inflationary macroeconomic policy, guided by the "ceiling on the balance of payments" (discussed later). The higher inflation rate of Japan's GDP deflator suggests rather the opposite. The lower WPI inflation rate was resulted from productivity growth,[26] while the reason for the still lower inflation of EPI is twofold: firstly, the composition of exports shifted to goods with higher productivity growth,[27] and secondly, exporters may have reduced export prices to get larger market shares abroad at lower margins.[28] The large differentials among various sorts of inflation rates implies that the choice of price index is most crucial to calculate the real exchange rate of the yen. For export competitiveness, the EPI is the most appropriate. To assess competitiveness more precisely, we have to take into account the regional composition of exports to get the effective exchange rate. But Figure 4 is based on the prices relative to the United States, as is most of the research so far undertaken. Real exchange rates of the EPI continuously declined through the mid-1960s, and those of the WPI remained almost unchanged from 1958 to 1970, whereas the CPI rates showed, on the contrary, upward trends. (Since the exchange rate is expressed in yen/dollar terms, the rising trend in Figure 4 corresponds to the depreciation of the yen).

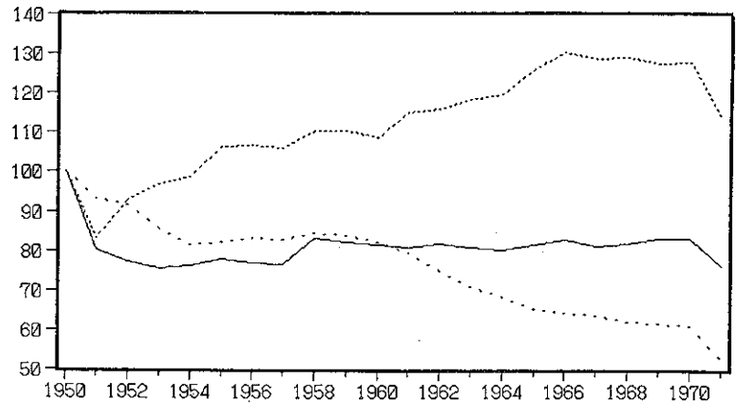
[26] In the benchmark year of 1950, most of the heavy industry products had low prices imposed with compensation of subsidies. Without any subsidies, the prices of those goods would have been approximately 20% higher in early 1950 (Economic Planning Agency, 1972, p. 62). Therefore, Table 6 overestimates the WPI inflation rate, and underestimates the productivity growth in Japan.

[27] The labour productivity growth showed large differentials among industry groups, higher growth industries were machine, steel, and chemicals (MITI, 1967, p. 39, Table 21). The former two also recorded higher export growth.

[28] This behaviour is better known in the floating rate era.

Figure 4

YEN/DOLLAR REAL EXCHANGE RATE OF WPI, CPI AND EXPORT PRICE (1950-1971)
1950 = 100



Source: IMF, *International Financial Statistics,* Supplement 1987.

The decline of the EPI real exchange rates would suggest "undervaluation" of the yen. Shinohara (1961, ch. 14) stressed that the "undervalued" yen contributed to export growth as an important tool of industrial policy, with an assumption that the initial pegging at 360 yen was an "undervaluation".[29] Fujino (1990, ch. 12), on the other hand, concluded that the yen was "overvalued" for a considerable time in the post-war years, from the relative as well as absolute PPPs (Purchasing Power Parities) based on the CPI.

As suggested above, discussions based on the CPI are questionable for comparing competitiveness, and price controls in the post-war years do not provide adequate information for measuring whether or not the initial pegging of 1949 was an "undervaluation". Fujino admitted, however, that both the relative PPP and the current accounts suggested a changing trend toward undervaluation in the late 1960s. Undoubtedly, the continuous decline of the real exchange

[29] Shinohara does not consider the external balance as a proper measure of the equilibrium exchange rate, because many countries implemented protectionist measures against Japanese exports (1961, pp. 379, 391-392).

rate (EPI) should have brought about an "undervaluation" at a certain point.

Analyses of factors to stimulate export show that income (world import) elasticity was larger than price elasticity for post-war Japan. They do not reject the favourable effects of relative prices, however. Nakamura (1981, pp. 54-59) argues for the large income effects, but his regressions report that in the 1960s price elasticity was relatively large with enough statistical significance. *White Paper* of MITI (1970, pp. 162-169) shows that, during 1960-1968, competitiveness played a larger role for metal, machinery and chemicals, although the income effect was generally larger than the competitiveness effect. While the latter is not necessarily confined to price competitiveness, the contribution of relative prices was large in the early 1960s, but suddenly declined in later years.[30]

The income elasticity is a result of the changing components of exports. That the main export shifted to the growing items of world trade naturally promotes growth. Besides, the leading export goods of Japan (steel, machines, ships, and automobiles) increased their shares in the world export market, suggesting aggressive competition rather than a passive dependence on the growth of world demand.

The next point is the stagnation of the EPI real exchange rate for nearly five years after a continuous fall from the early 1950s to the mid-1960s In the late 1960s, the Japanese current accont turned positive and increased its surplus, however. As is well known, accelerated U.S. inflation expanded imports from the rest of the world, and the Vietnam War expenditure and various types of economic aid promoted exports from Japan to South-East Asia in the late 1960s. In this sense, the Japanese current account surplus was a both direct and indirect result of U.S. inflation (Ouchi, 1971, pp. 30, 52-53). Still unclear is the logical causality: how U.S. inflation affected the Japanese current account surplus.

The real (effective) exchange rate of the dollar did rise somewhat in the late 1960s, reflecting U.S. inflation, but its level stayed nearly the same as, or lower than, the early 1960s.[31] Considering also that the real yen/dollar exchange rate remained stable during this period,

[30] Ueda (1987, pp. 24-26) estimated larger price elasticity for the period 1958-1985, with other non-price competitiveness included, adding that the price effect was slightly negative on Japanese current accounts from the mid-1960s to the early 1970s.

[31] For the real exchange rate of the dollar, see IMF (1984, p. 43, Chart 7) and Meltzer (1991, p. 77, Figure 7). The former is based on the unit labour cost; the latter on the CPI.

the Japanese surplus should not be attributed to price differentials. Price levels had a tendency to be largely synchronized internationally, due to imported inflation during the late stage of the Bretton Woods System. The U.S. inflationary policy influenced Japanese export growth through expanded "absorption" within the United States and its counterpart in the South-East Asia. The last, but not least important factor was naturally the non-price competitiveness (quality control, after-services, etc.) of Japanese products.

4.2 *The "Ceiling on the Balance of Payments"*[32]

During the "high growth" era, the most important barometer for Japanese macroeconomic policy was the "ceiling on the balance of payments", and its main policy tool was monetary policy. The principle of the "balanced budget" rendered public expenditure inflexible, amplifying economic fluctuations (Nakamura, 1981, p. 132). The tight monetary policy, induced by a decline in international reserves, led to the turning-point of a business cycle, which initially cut domestic absorption, causing an increase in "involuntary inventories" and later a decrease in fixed capital formations. From the early 1960s, the rise in the Bank Rate began to induce short-term capital inflows, pushing upwards the "ceiling on the balance of payments", and the decreasing relative scale of inventories (raw materials) also transformed the business cycle patterns. However, the upper turning-point of 1964 had the common features of its predecessors: firstly, deficits in the balance of payments – tight monetary policy – caused recession, and secondly, the decline in inventories introduced a cut in aggregate demand. The balance of payment deficits in 1967 also led to a change in monetary policy, whereas an inflationary tendency brought about a policy change for the first time in 1969, despite the balance of payments surplus. The latter policy resulted in the ever increasing current account surplus, causing the global imbalance of current accounts.[33]

[32] This expression was frequently used for the "balance of payments constraint" during the high-growth era. The "ceiling" in this case implied an upper limit on monetary expansion, which resulted in the balance of payments problem.

[33] Economic Planning Agency (1972, pp. 187ff), Nakamura (1981, pp. 52-54). The features of each turning point are illustrated in Nakamura (1981, pp. 146-150).

The government and the Bank of Japan remained reluctant to allow free movement of capital, and the latter gave the following reason:

> "... firstly, if high confidence in yen induced capital inflows, then the balance of payments would not be paid enough attention, and monetary policy would become over-expansionary. When the balance of payments turned negative, decreased confidence in yen would lead to sudden capital outflows, and hence promote a decrease in international reserves. Secondly, short-term capital inflows increase domestic liquidity on which the Bank cannot impose direct control, and which renders tight monetary policy ineffective. The capital outflows, on the other hand, drive the Bank to expand credit. Thirdly, excessive short-term borrowing by Japanese foreign exchange banks is considered by foreigners to be a means to lend at long term, and may damage international confidence" (BoJ, 1986, p. 248).

In brief, short-term capital movements amplify fluctuations in the balance of payments; they disturb domestic financial markets, and in particular reduce tight money effect; and the international positions of "borrowing short, lending long" damage the international credibility of Japanese foreign exchange banks. These arguments have shortcomings, however. Such expressions as "cannot impose direct control" and "drive the Bank to expand credit" generate doubts as to whether the Bank of Japan actually wished to implement independent monetary policy. The "borrowing short" by foreign exchange banks does not itself constitute financial instability, as the banks of the key-currency country have short-term liabilities to non-residents. Indeed, free capital movements would reduce the tight money effects when international reserves decreased. Since interest rates in Japan stayed relatively high, the dismantling of capital controls would have induced capital inflows and pushed the yen exchange rates upwards. In consideration of the real mid- and long-run decline of the yen exchange rates, the pressure for capital inflows must have been stronger in anticipation of the revaluation. On the other hand, when capital flows out, the "ceiling on the balance of payments" would go down. The motive of capital controls was, at least initially, to avoid the latter possibility rather than the former, because the government was apt to underestimate the competitiveness of Japanese products. The tight monetary policy introduced by the decline in international reserves undoubtedly contributed to avoid accelerated inflation and a rise in real exchange rates. But in the high growth period, Japanese overall inflation rates were not low relative to other developed

countries. It is important to note the powerful effect of monetary policy in promoting measures for productivity growth and a cut in export prices.

It is not only in Japan that the government was initially sceptical about the balancing effects of the capital movements. But in Japan a strong inclination towards tight monetary policy resulted in a decline of the real exchange rates and better competitiveness. Nevertheless, the Japanese government did not necessarily recognize these results of its policy stance.[34] Rising competitiveness associated with the pegged exchange rate would either lead to capital outflows or an increase in reserves: Japan opted for the latter.

From the 1950s until 1970, Japan's dependence on exports (expressed by the export/GNP ratio) was smaller than in pre-war years and the era after the 1970s. Although the same tendency appears in the U.S., the low dependence on export is more re-

TABLE 7

THE DEPENDENCE ON FOREIGN TRADE OF MAJOR COUNTRIES (%)

Export/GNP	1913	1929	1939	1950	1960	1970	1985
Britain	23.4	16.9	7.9	17.0	14.4	15.6	22.2
United States	6.6	5.2	3.5	3.8	3.9	4.4	5.4
Germany	19.3	17.0	5.4*	8.5	15.8	18.6	27.3
Japan	13.8	16.0	11.9	7.5	9.2	9.8	12.8
Import/GNP	**1913**	**1929**	**1939**	**1950**	**1960**	**1970**	**1985**
Britain	28.3	24.6	14.5	19.6	17.7	17.5	22.8
United States	4.6	4.3	6.6	3.2	2.9	4.1	8.5
Germany	20.5	16.8	5.6*	11.6	13.1	15.5	23.0
Japan	16.5	16.9	9.5	8.8	8.6	9.6	8.7

Note: * 1938.
Sources: See Table 2.

[34] In the early post-war years, economic policy, not confined to foreign policy, was largely influenced by traditions of the controlled economy since the pre-war and war eras (KOMIYA *et al.*, eds., 1988, p. 6). Controls on international financial transactions were particularly strengthened during the war.

markable for Japan's rapid growth period (see Table 7). Does this fact reject the concept of export-led growth? Indeed, the recovery to the pre-war ratio had undoubtedly been a growth factor, but the large share of domestic demand implies "absorption-led" growth. However, the following facts should be noted.

Firstly, under the pegged exchange rate associated with capital controls, export growth determined import growth. Since Japanese imports consisted largely of raw materials and fuels (Table 5), the export growth constituted a material basis for high-speed growth.[35]

Secondly, the export growth, other things being equal, pushed upwards the "ceiling on the balance of payments" and enabled an expansionary monetary policy to continue for a while.

Thirdly, the developed countries other than the United States, generally speaking, observed the "rules of the game" under the Bretton Woods System. Comparing the money supply functions of the developed countries, the Japanese coefficient on international reserves is the largest; larger than Britan, well known for her "stop-go" policy (Iwami, 1991, Table 5B). Given the large coefficient, the effect of increasing international reserves on money supply and subsequent economic growth was more remarkable in Japan. In Britain, the "stop-go" policy is claimed to have discouraged investments and hence deteriorated economic performance, whereas the same policy encouraged export and economic growth in Japan. This difference is attributed to whether or not the same policy promotes investments to raise productivity and stimulates price-cutting efforts on the part of exporters. Table 6 shows that the CPI inflation rate in Japan is larger than Britain, and that GDP deflator inflation rates are almost the same in the period from 1950 to 1970, while WPI and EPI inflation rates are far smaller in Japan. Such a large gap in EPI inflation rates would naturally generate a different performance in exports, despite possible differences in price elasticity of both countries' export goods.

5. Concluding Remarks

The main features of capital controls in post-war Japan can be summarized as follows. Thery were undoubtedly disadvantaged in

[35] Shinohara (1961, p. 17), Nakamura (1981, pp. 59-61).

that capital import would have cut interest costs. The composition of industries importing capital suggests the existence of a discretionary policy in favour of industries with larger growth potential. But these industries would have had better access to the foreign capital market even without capital controls. These capital controls were not effective in cutting interest costs and introducing foreign technology, while protecting domestic industries and, in effect, promoting economic growth. The semi-official finance by the Bank of Japan and the Export-Import Bank of Japan supplied funds with lower interest rates, in compensation for the higher financial costs imposed by capital controls.

Another aspect to note is the considerations of the balance of payments. The capital import would have had undoubtedly favourable effects on the balance of payments in the short run, but whether or not the debt-service payments would generate the balance of payments problem in the future depends on the employment of the imported capital. The fund allocation by the government would promote efficiency if the government could collect and analyze information better than the private market. In view of the fact that the departments of the MITI controlled each industry group and collected the necessary information at will, the government could make better decisions on investments. But this argument would be also questionable because there existed conflicts even between the departments within the ministry, which would have hindered better decision-making. Further research is still necessary on this point.

As for economic growth, it is worth recalling that the "undervalued" exchange rate parity was maintained for a long time, longer than the high-growth period. The macroeconomic policy stance was largely determined by the "ceiling on the balance of payments" associated with capital controls, both of which were based on the experiences of the balance of payment difficulties in the post-war years, and which resulted in obedience to the "rules of the game". Japan was, in this sense, the best example of the developed countries. The tight monetary policy, induced by the decline in international reserves, brought about productivity growth and a decrease in relative export prices. The declining real exchange rate, in terms of the EPI, facilitated export growth until the mid-1960s.

The finance by the Bank of Japan and the Export-Import Bank of Japan contributed to the export growth as well, but its effect was smaller than the decline in the real exchange rate, because interest

costs constituted only a smaller part of the export price. The institutional finance for imports terminated in the 1960s, therefore its effect was still smaller than the export finance.

Since the mid-1960s, as the international environment around the Japanese economy transformed itself, international reserves increased and capital controls were partly relaxed. This change was a result of accelerated inflation in the United States. During this period, when the "undervalued" yen was criticized by foreign countries, the price effect on export growth became smaller, and the world's income growth resulting from U.S. inflation, as well as the non-price competitiveness of Japanese products, became main factors for export growth.

The closed financial system since the reconstruction era was largely transformed in the early 1970s, after successive partial modifications. The definitive reform of a system is sometimes delayed by the resistance of fixed ideas and vested interests, which could hinder economic development. However, Japan's experience shows that the direct and indirect resistance to radical reforms resulted in maintaining the low level of the exchange rate and contributed to economic growth. This fact does not necessarily imply that the government chose the best option, considering correctly the overall effects of a conservative policy.

Tokyo

TORU IWAMI

REFERENCE

ATKIN, J.M. (1977), *British Overseas Investment 1918-1931*, New York, Arno Press.

BALASSA, BELA (1964), "The Purchasing-Power Doctrine: A Reappraisal", *The Journal of Political Economy*, Vol. 72, pp. 584-596.

THE BANK OF JAPAN (1985, 1986), *Nippon Ginko Hyakunenshi* (Centennial History of the Bank of Japan), Tokyo.

BRYANT, RALPH C. (1987), *International Financial Intermediation*, Washington D.C., Brookings Institution.

COLLINS, SUZAN M. (1988), "Saving and Growth Experiences of Korea and Japan", *The Journal of the Japanese Economy and International Economics*, 2, pp. 328-350.

DEUTSCHE BUNDESBANK (1985), "Freedom of Germany's Capital Transactions with Foreign Countries", *Monthly Report*, July, pp. 13-23.

ECONOMIC PLANNING AGENCY (1960), *Sengo Keizaishi, Keizaiseisakuhen* (Post-War-Economic History: Economic Policy), Tokyo.

ECONOMIC PLANNING AGENCY, RESEARCH DEPARTMENT (1972), *Shiryoh, Keizai Hakusho 25 nen* (Documents: 25 Years of the White Paper on Japanese Economy), Nihon Keizai Shimbun.

EICHENGREEN, BARRY and MARC UZAN (1991), "The Economic Consequences of the Marshall Plan", manuscript.

EKONOMISUTO, ed. (1984), *Shohgen Kohdo Seichohki no Nihon (ge)* (Evidence on Japan's High-Speed Growth), Mainichi Shimbun.

THE EXPORT-IMPORT BANK OF JAPAN (1983), *30nen no Ayumi* (Thirty Years' Experience), Tokyo.

FUJINO, SHOHZABURO (1990), *Kokusai Tsukataisei no Doyo to Nihon Keizai* (The Dynamics of International Monetary System and the Japanese Economy), Keiso Shobo.

HAMADA, KOICHI *et al.*, eds. (1987), *Nihon Keizai no Makuro Bunseki* (Macroeconomic Analysis of Japan), University of Tokyo Press.

HORIUCHI, AKIYOSHI (1984), "Economic Growth and Financial Allocations in Postwar-Japan", The University of Tokyo, Research Institute for the Japanese Economy, *Discussion Paper Series*, 84-F-3.

HORIUCHI, AKIYOSHI, and MASAYUKI OHTAKI (1987), "Kinyu: Seifu kainyuh to Ginkokashidashi no Juhyohsei", (Finance: Government Interventions and the Significance of Bank Loans), in Koichi Hamada *et al.*, eds. (1987), pp. 123-148.

INTERNATIONAL MONETARY FUND (1984), "Exchange Rate Volatility and World Trade", *Occasional Papers*, No. 28.

IWAMI, TORU (1991), "The Bretton Woods System as a Gold Exchange Standard", The University of Tokyo, Research Institute for the Japanese Economy, *Discussion Paper Series*, 91-F-11.

KANAMORI, HISAO, ed. (1970), *Boheki to Kokusai Shushi* (Foreign Trade and Balance of Payments), Nihon Keizai Shimbun.

KOMIYA, RYUTARO (1967), "Shihon Jiyuhka no Keizaigaku" (Economics of Capital Liberalization), "Ekonomisuto", *Gendai Nihon Keizai Kenkyu* (Studies of the Contemporary Japanese Economy), University of Tokyo Press, 1975, pp. 195-223.

KOMIYA, RYUTARO, MASAHIRO OKUNO, KOTARO SUZUMURA, eds. (1988), *Industrial Policy of Japan*. Orlando, Fl., Academic Press.

MELTZER, ALAN (1991), "U.S. Policy in the Bretton Woods Era", *Federal Reserve Bank of St. Louis Review*, 73, pp. 54-83.

MINISTRY OF FINANCE, Working Group on Financial Institutions (1970), *Kinyu Seido Chosakai Shiryo Dai 4 Kan, Futsuginko, Boekikinyu* (Documents Vol. 4, Ordinary Banks and Trade Finance), Kinyu-Zaisei Jijo Kenkyukai.

MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY (1967), *Sengo Nihon Boheki 20nenshi* (Twenty Years' History of Fereign Trade in Post-War Japan), Tsusho-Sangyo Chosakai.

NAKAMURA, TAKAFUSA (1981), *The Postwar Japanese Economy: its Development and Structure*, University of Tokyo Press.

OHKAWA, KAZUSHI *et al.*, eds. (1974), *Choki Kezai Tokei Kokumin Shotoku* (Long-Term Economic Statistics: National Income), Tokyo-Keizai Shimpo.

OKA, MASANOBU (1972), "Yushutsunyu Kinyu" (Export-Import Finance), in Kojima Kiyoshi and Komiya Ryutaro, eds., *Nihon no Hikanzei Shoheki* (Japan's Non-Tariff Barriers), Nihon Keizai Shimbun, pp. 162-174.

OKUDA, HIROSHI (1986-1987), "Sengo Nihon no Boeki Kinyu" (Foreign Trade Finance in Post-War Japan 1-3), Oita University, *Keizai Ronshuh*, vol. 37. 4/5 - 38. 2/5, pp. 76-107, 28-60, 1-31.

OHSA, MASAYUKI (1989), *Sangyo Boekishinko to Kinyuseisaku* (Encouraging Industry and Foreign Trade and Monetary Policy), Toyo-Keizai Shimpo.

OUCHI, TSUTOMU, ed. (1971), *Gendai Nihon Keizairon* (The Modern Japanese Economy), University of Toko Press.

SHINOHARA, MIYOHEI (1961), *Nihonkeizai no Seicho to Junkan* (Growth and Cycles of Japanese Economy) Sobunsha.

TAKASUGA, YOSHIHIRO (1972), *Gendai Nihon no Bukka Mondai* (Price Problems in Contemporary Japan), Shinhyoron.

TERANISHI, JURO (1982), *Nihon no Keizaihatten to Kinyu* (Finance and Economic Development in Japan), Iwanami Shoten.

TERANISHI, JURO (1989), "Fukinkoseicho to Kinyu" (Disequilibrium Growth and Finance), in Nakamura and Odaka, eds., *Nijuhkobzo* (Dual Economy), Iwanami Shoten, pp. 185-229.

TSURUTA, TOSHIMASA (1982), *Sengo Nihon no Sangyoseisaku* (Industrial Policy of Post-War Japan), Nihonkeizai-Shimbun.

UEDA, KAZUO (1987), "Kokusai Shushi, Keijoshushi no Chokihendo to Tankihendo" (Balance of Payments: the Long- and Short-Term Fluctuations of the Current Accounts), in Hamada *et al.*, eds. (1987), pp. 13-34.

YAMAZAWA, IPPEI AND YUZO YAMAMOTO (1979), *Choki Keizai Tokli, Boeki to Kokusaishushi* (Long-Term Economic Statistics: Foreign Trade and the Balance of Payments), Toyo-Keizai Shimpo.