88-F-8

Structural Changes in the World Capital Flow and Japan's Role as a Capital Exporter*

by

Akiyoshi Horiuchi
University of Tokyo

May 1988

*This is a revised paper presented at the Conference, "External Capital and the Role of Japan," held in Pattaya during March 25-27, 1988. The author appreciate many comments made by participants of the conference on the earlier version of this paper. I am indebted to Yukihiro Torikai for helpful research assistance.

Structural Changes in the World Capital Flow and Japan's Role as a Capital Exporter

Akiyoshi Horiuchi

(University of Tokyo)

1. Introduction

Since the debt crisis of the early 1980s, the world capital flow has undergone drastic change. This change has exerted severe pressure on LDCs that have been dependent upon borrowing from abroad. How to direct new money to LDCs is an urgent problem in the world capital market. Since the early 1980s, Japan has been the most important capital exporter in the world. Japan's net capital export is approximately twice as large as the total net borrowing of all developing countries. (Table 1) Thus, Japan's capital export is quite influential on the world economy.

The purpose of this paper is to investigate the structural change on the world capital flow during the last decade and to provide an idea of how to improve the efficiency of the world capital market from the viewpoint of borrowing LDCs, with some emphasis on Japan's role. In section 2 and 3 of this paper, we make a broad overview of the structural changes both in the world capital flow, and in Japan's capital export since 1970. In section 4, we discuss causes of these changes in terms of economic theory. We emphasize the difficulty of 'market failure' in the world capital market that is supposed to derive from the

informational imperfection in the capital market.

Section 4 takes up a normative issue of how to remedy the unsatisfactory structure of the world capital flow. If the recent structural change in the capital flow is characterized by 'market failure', we should directly tackle it. In this context, we examine the role of multilateral organizations as an intermediator. Finally in section 5, some short concluding remarks are given.

At the beginning of our discussion, we must make it clear that this paper is confined to an investigation of market mechanisms of the world capital flow. Therefore, we do not take up any issues related with aid to LDCs, although they are important.

2. Structural Changes in Capital Flow: The "Debt Crisis" and its Influences.

Structural changes in the capital flow: The 'debt crisis' of some developing countries, which came to a crisis at the beginning of the 1980s, has been exerting grave influences on the international capital market. For instance, the bank loans to developing countries have sharply decreased since 1983. According to estimates by Watson et al.(1986), the total amount of banks' claims on developing countries increased only by $16 billion during 1984, less than half of $38 billion recorded in 1983. Furthermore, the developing countries are estimated to have borrowed $1.0 billion from banks in the first half of 1985, just a quarter of the amount they could have borrowed from banks in the first half of 1984.(1) Since the bank loans occupied an overwhelmingly important share of LDCs' external finance during the 1970s and the beginning of the 1980s, it is not hard to imagine that the shrinkage of finance through this channel has

made it quite difficult for most of LDCs to manage their policy of economic development. In fact, the LDCs' current account deficits were reduced remarkably as the amount of bank loan to them decreased. Obviously, most of LDCs achieved this improvement on their current accounts more or less at the expense of domestic economic welfare.

The amount of net capital exports (import) of an economy must be identical to its current account surplus (deficit). Table 1 presents the accumulated amount of capital exports of major economies and some regions estimated by the trade balance surplus. This table shows rather drastic changes in global capital flow since the beginning of the 1980s, when the debt crisis struck the world capital market. During the 1970s, the developing countries, in particular non-oil developing countries, were the most important borrowers (i.e., net importers) of capital. The United States has become the most aggressive borrower in the world capital market since 1980. At present, the United States is crowding out borrowers of LDCs from the world capital market.

Instability of financial markets in advanced economies: One of the main reasons for the change in global capital flow since 1980 is the huge budget deficit of the United States. However, it can be explained partly by the various difficulties caused by the LDCs' debt crisis. The crisis broke down confidence bankers and other lenders had placed in LDCs and intensified the

---

1) See M. Watson, et al., International Capital Markets: Developments and Prospects, IMF Occasional Paper 43, Feb. 1986.

degree of imperfect information between lenders and borrowers in the capital market. The economic theory suggests the possibility that imperfect information (asymmetric information) between lenders and borrowers breaks down the adjustment mechanism provided by interest rates and brings about credit-rationing in the loan market.2) This suggestion is likely to be true of the present situation of the international bank loan market, because most borrowers of LDCs seem to be suffering from rather strict credit-rationing.

It is noteworthy that the changes in global capital flow have not only given rise to serious economic problems for those countries suffering from debt crisis, but have also made financial markets in advanced countries less stable. This is understood by a simple theoretical model in which the world economy is divided into two regions, i.e., an industrialized and a developing region. If capital movement between these two regions is smooth, the monetary policy adopted in the advanced region affects interest rates and/or various asset prices in both advanced and developing region simultaneously. The capital movement is important in transmitting the effect of monetary policy in the advanced region to financial markets in the developing one. This implies that the impact of the monetary policy upon interest rates and/or asset prices in the advanced region will be to some extent mitigated by the capital movement.

---

2) See J.E. Stiglitz and A. Weiss, "Credit Rationing in Markets with Imperfect Information, "American Economic Review, Vol.71, No.3, June 1981. Guttentag and Herring(1984) describes the process of credit-rationing in global capital market. See J. M. Guttentag and R. J. Herring, "Credit Rationing and Financial Disorder," Journal of Finance, Vol.39, No.5, Dec. 1984.)

Table 1: Accumulated Trade Balance (US $ million)(a)

	1972-1976	1977-1981	1982-1986
Asia(b)	-19,624	-55,181	-46,901
China	-255(-0.0)	-1,383(-0.1)	-1,245(-0.1)(c)
India	-247(-0.1)	-13,529(-2.0)	-18,559(-2.5)(c)
Indonesia	6,747(5.6)	27,819(8.9)	14,385(4.1)(c)
Korea	-5,339(-5.7)	-14,664(-5.2)	-1,206(-0.3)
Malaysia	2,725(6.4)	8,570(8.6)	9,606(6.4)
Philippines	-2,612(-3.9)	-7,775(-5.2)	-6,494(-3.8)
Singapore	-9,237(-38.9)	-17,861(-36.1)	-21,998(-25.5)
Thailand	-1,851(-2.9)	-7,123(-5.1)	-6,822(-4.3)(c)
Japan	28,667(1.3)	65,290(1.3)	242,440(3.6)
United States	-11,600(-0.2)	-146,060(-1.2)	-482,530(-2.6)
Industrial Ctys(d)	-27,298	-62,950	118,349
Oil Export.Ctys	233,776	512,355	234,555
Non-oil Export.Ctys	-135,662	-266,641	139,397

Note:(a) Figures in parentheses are ratios per accumulated values of GDP.
(b) Japan is excluded.
(c) 1982 - 1985.
(d) The United States and Japan are excluded.
Source: IMF, International Financial Statistics; Year Book, 1987.

Conversely, if the capital movement between the advanced and the developing regions is hindered by the credit-rationing against borrowers in the developing countries. A change in monetary policy in the advanced region will strongly influence financial markets in that region than the case in which the capital can move freely across the country. Therefore, interest rates and market prices of financial assets will be expected to fluctuate more widely under the imperfect capital movement than under the perfect capital movement between the two regions. For example, the G-5 in September 1985 agreed upon the cooperative reduction in interest rates and carried it out. The cooperation could not, unfortunately, increase the capital flow into LDCs. Rather, it stimulated speculation in various financial markets in advanced economies such as the United States and Japan, resulting in abnormally rapid rises in bond and stock prices in those countries. Thus, the disruption of the global capital market due to the debt crisis has been seriously influencing not only debtors of LDCs, but also lenders of advanced economies.

The channels of capital movement and their change: Since the debt crisis, the relative importance of specific channels of international capital movement has been changed. This structural change is related to the so-called 'securitization' of the global capital market. Throughout the 1970s, the most important channel of international capital movement was the syndicated bank loan, typically in the form of floating-rate commercial bank loans. Through this channel, the vast amount of capital was flowing into LDCs. (See Table 2)

However, since the early 1980s, the relative share of bank loans has declined, while the share of bonds has increased. This structural change is

Table 2: Bank Loans and Bond Issues(net) in the International Capital Market

(US $ billion)

	1979	1980	1981	1982	1983	1984
Bond issues	23(6.2)	19(4.6)	30(6.9)	50(21.2)	45(24.5)	60(23.8)
Bank credits	347(93.8)	395(95.4)	404(93.1)	186(78.8)	139(75.5)	192(76.2)
Total	370	414	434	236	184	252
LDCs' finance						
Bond issues	3	2	4	5	3	5
Bank credit	59	85	87	51	38	16

Source: M. Watson, et al., International Capital Markets Developments and Prospects, IMF, Occasional Paper 43, Feb. 1986.

caused by the debt crisis in the following two senses. First, the debt crisis placed big banks that had played quite an important role in an awkward position. Secondly, as a result of the debt crisis, major big companies and governments of industrialized countries became the most important borrowers in the capital market, while borrowers from LDCs were crowded out.

The debt crisis made it clear that major banks in the United States, Japan, and other advanced economies held a huge amount of dubious claims on the LDCs. Since their balance sheets became obviously unsound, their credit rating substantially deteriorated in the international money market. Thus, most of the major banks experienced rises in marginal costs of fund. Some superior non-financial companies could borrow at lower interest rates than major banks in the money market. Therefore, the international capital movement by means of banks' intermediation has been reduced unavoidably.

Furthermore, monetary authorities in most of advanced economics began to strengthen their regulation (so-called prudential regulation) on banks. Monetary authorities are emphasizing the importance of banks' capital adequacy ratio as a measure of their soundness. Responding to it, banks have been contriving to introduce new instruments that allow them to make commitments to their customers without decreasing their own capital ratio. For example, instead of lending money that they raise in money markets, most banks have been eager to guarantee their customers' bonds issued in the capital market, and to give note issuance facilities to borrowers. These kinds of commitments are convenient for banks because they can satisfy their customers' demand for financial service without deteriorating the banks' own balance sheet.(3)

Banks also started to sell their claims on the LDCs' borrowers at discounted prices to other banks and institutional investors. It has been reported

that some banks exchanged their claims on the LDCs with each other in order to reduce the degree of their exposure to specific debtor countries. In some cases, buyers of bank loans were nonfinancial corporations.(4) This movement of banks, which is generally called 'securitization', has been intended to make their balance sheets more flexible and to retain traditional relationships with their good customers.

3 Structural Changes in Japan's Capital Export

Japan as a capital exporter: In the previous section, we made a rough sur vey on structural changes in the global capital movement since the 1970s. We

---

3)See Bank for International Settlements, Recent Innovations in International Banking, Prepared by a Study Group established by the Central Banks of the Group of Ten Countries, April 1986.

4)One of the representative cases is Citicorp's commitment to loan selling. In May 1986, Citicorp bought $40 million loans to Mexico, the face value of which was $60 million, from small US banks. Then, Citicorp resold the claims on Mexico to Nissan, one of the biggest automobile producers in Japan. Nissan bought them with a view to reselling them to the Mexican central bank to obtain money denominated in Peso. Actually, Nissan could obtain the money equivalent to $54 million, which was used to expand Nissan's engine factory located in Mexico. In short, through this somewhat complicated procedure, the bank loans were trans-formed into the equity stock held by Nissan.

shall consider the capital export from Japan and its structural change in this section, paying special attention to the capital export to ASEAN and the other developing countries.

In the first half of the 1980s, Japan established herself as the most important capital exporter in the world. This reflects the huge surplus of current accounts and trade balances Japan has recorded since the early 1980s. The surplus implies that Japan's saving has been exceeding her domestic investment by more than a few trillion dollars every year. However, Japan's current account surplus started during the 1970s. As Table 3 clearly indicates, Japan's current account has had a surplus since 1970 except for two periods of the 'oil crisis'. In terms of the trade balance, Japan has never recorded deficits. The long term capital account was surplus (i.e., net capital import) only once in 1980, the year of the second oil crisis.

The structure of Japan's capital export: We proceed to an investigation of the structure of capital export from Japan; i.e., its regional distribution and the relative importance of specific channels of capital export. However, it is not so easy as may be expected to get detailed information on the structural aspects of Japan's capital export.

We cannot get data on capital exports to specific countries or regions except for the United States and a few regions. Obtaining figures of the total amount of Japan's capital export to ASEAN countries is almost impossible. We may estimate the regional distribution of Japan's capital export by the distribution of Japan's trade balance surplus. Table 4 presents the estimated regional distribution of capital export.

Table 3: Balance of Payments of Japan: 1971 - 1986 (US $ million)

	Current Balance	Trade Balance	Long-Term Capital	Basic Capital
1971	5797	7787	-1082	4715
1972	6624	8971	-4487	2137
1973	-136	3688	-9750	-9886
1974	-4693	1436	-3881	-8574
1975	-682	5028	-272	-954
1976	3680	9887	-984	2696
1977	10918	17311	-3184	7734
1978	16534	24596	-12389	4145
1979	-8754	1845	-12618	-21372
1980	-10746	2125	2394	-8352
1981	4770	19967	-6449	-1679
1982	6850	18079	-14969	-8119
1983	20799	31454	-17700	3099
1984	35003	44257	-49651	-14648
1985	49169	55986	-64542	-15373
1986	85845	92827	-131461	-45616

Source: Bank of Japan, Balance of Payments Monthly, various issues.

Table 4: Regional Distribution of Japan's Capital Export estimated by Trade Balance, (US $ million)

	1971 - 1975	1976 - 1981	1982 - 1986
South East Asia	5,908	9,445	28,643
India	-1,078(-0.3)	-591(-0.1)	1,831(0.1(a))
Indonesia	-9,049(-7.5)	-31,913(-10.2)	-35,322(-8.8(a))
Korea	4,071(4.4)	12,907(4.6)	15,468(3.7)
Malaysia	-1,514(-3.6)	-5,103(-5.1)	-6,709(-4.5)
Philippines	-181(-0.3)	659(0.4)	113(0.1)
Singapore	4,066(17.1)	8,622(17.4)	13,742(15.9)
Taiwan	4,574(-)	10,725(-)	11,858(-)
Thailand	1,318(2.1)	3,830(2.8)	5,380(2.7(a))
China	1,882(0.3)	2,713(0.3)	9,441(0.8(a))
United States	6,714(0.1)	43,689(0.4)	154,295(0.8)
Latin America	8,509	15,903	9,610
Brazil	1,144(0.3)	-413(-0.0)	-4,969(-0.4)
Mexico	136(0.0)	1,348(0.2)	-4,511(-0.7)
Middle East	-39,595	-95,376	-82,712
Western Europe	17,831	43,778	66,649
Africa	10,475	15,151	8,239
Oceania(b)	-11,245	-16,071	-11,539
Total	8,638	63,183	206,749

Note: The figures are accumulated values of trade balance, and those in parentheses present ratios per accumulated values of GDP. (a) 1982-1985. (b) includes South Africa.

Source: Bank of Japan, Economic Statistics Annual, 1986
IMF, International Financial Statistics; Year Book, 1987.

According to the estimates presented in Table 4, Japan's 'capital export' to the United States was overwhelmingly important not only after 1980, but also during the later half of the 1970s. On the other hand, the capital export to Southeast Asia did not take a large share of Japan's total capital export. Since the estimates depend upon Japan's trade surplus with respective regions, these results are not surprising. These estimates indicate how much the Japanese economy has been relying on the trade relationship with the United States.

Tt is a little dubious how far Japan's actual capital exports can be approximated by the bilateral trade balance with each region. At the same time, from the above estimates, we cannot obtain any information on specific channels through which Japan's capital has been exported. Table 5, which is dependent on statistics of long-term capital account published by the Bank of Japan, overcomes these shortcomings to some extent. The statistics can be regarded as more straightforward approximations of the actual net capital export than the figures depending on the trade balances. In addition, we can get some information concerning the relative importance of alternative channels of capital movement. In table 6, the relative shares of the respective channels are calculated in terms of the total amount of Japan's net capital export. For instance, in the period of 1972-1976, Japan's accumulated net capital export to the U.S. through the direct investment was $2,124 million, being around 10.9% of the total net capital export in that period $19,374 million (Table 5). The statistics do not tell us anything about the amount of Japan's capital export to some regions, especially to Southeast Asia.

In Table 5, the destination of Japan's capital export is divided into five areas and one group of institutions; i.e., the United States(US), EC countries

Table 5: Regional Distribution of Capital Outflow(long-Term Capital) from Japan: US $ million (percentage)

	1972 - 1976	1977 - 1981	1982 - 1986
United States	4,786(24.7)	5,787(17.9)	120,868(43.4)
E.C. Countries	954(4.9)	-9,975(-30.9)	59,033(21.2)
Other OECD Countries	528(2.7)	9,584(29.7)	22,277(8.0)
Other Non-communist Countries	9,919(51.2)	13,981(43.4)	51,398(18.5)
International Institution	1,708(8.8)	8,086(25.1)	16,521(5.9)
Total	19,374(100.0)	32,246(100.0)	278,323(100.0)

Note: The figures are accumulated values of the long-term capital accounts.
Source: Bank of Japan, Balance of Payments Monthly, various issues.

including the United Kingdom(EC), other OECD countries excluding the above two regions(OECD), other non-communist countries(ONCC), the other countries, and the international institutions(II). The first three areas cover those of advanced economies, and the fourth one corresponds to the developing economies such as the Latin American and ASEAN countries.

We can derive following propositions concerning the structure of Japan's capital export from both Table 5 and Table 6:

(1) From the 1970s to the beginning of the 1980s, the most important destination of Japan's capital export was the developing countries (ONCC). The net capital export to these areas accounted for approximately 50% of the total of Japan's net capital export during that period. However, since 1982 when the debt crisis came to the front, the relative share of net capital export to ONCC has decreased by half, though the absolute amount of capital export to this area increased from $8.1 billion in 1977 - 81 to $16.5 billion in 1982 - 1986. Taking the place of developing economies, the capital export to the United States and other advanced countries have occupied the largest share of Japan's capital export.

(2) The change in the regional distribution of capital export has been closely related to the structural change in channels of the capital export. The channel of loans was the most important one through which Japan's capital was exported during the 1970s. On the average, the loan amounted to about 50% of Japan's net capital export. During the same period, the direct investment was important, because it accounted for around 40% of the total net capital export. Direct investment occupied a stable share of Japan's capital export. The direct investment was an instrument Japan used to
export capital rather steadily to developing countries during the 1970s.

Table 6: Structure of Capital Outflow from Japan: 1972 - 1976 (%)

	LT Cap.	Dir.Inv.	Tr.Crd.	Loans	Secur.	Others
US	24.7	10.9	0.8	0.9	1.6	5.0
EC	4.9	6.7	-0.4	4.4	-0.1	-5.7
Other OECD	2.7	2.7	0.6	1.5	1.0	-2.9
ONCCs	51.2	19.5	9.3	30.4	-2.6	-5.4
Int. Inst.	8.8	-	-	5.0	-0.4	4.3
World	100.0	39.9	12.3	31.8	4.3	-7.8

Structure of Capital Outflow from Japan: 1977 - 1981 (%)

	LT Cap.	Dir.Inv.	Tr.Crd.	Loans	Secur.	Others
US	17.9	14.3	0.3	4.0	-0.4	-0.3
EC	-30.9	4.1	-0.2	0.8	-30.8	-4.8
Other OECD	29.7	4.4	1.2	12.1	24.5	-12.7
ONCCs	43.4	18.8	6.4	37.5	-22.4	-3.0
Int. Inst.	25.1	-	-	7.6	7.4	10.1
World	100.0	41.7	11.8	72.6	-21.5	-4.6

Structure of Capital Outflow from Japan: 1982 - 1986 (%)

	LT Cap.	Dir.Inv.	Tr.Crd.	Loans	Secur.	Others
US	43.4	5.6	0.8	0.9	35.7	0.5
EC	21.2	2.2	0.9	2.1	16.1	-1.0
Other OECD	8.0	0.6	1.0	3.5	5.6	-2.7
ONCCs	18.5	3.6	3.2	7.9	3.3	0.5
Int. Inst.	5.9	-	-	1.4	2.7	1.8
World	100.0	12.0	5.5	17.4	63.9	1.2

Note and source: See Table 5.

However, since 1982 both the loan and the direct investment has been remarkably less important as channels of Japan's capital exports.

(3) The channel of 'securities' has been increasing its relative importance in the share of Japan's capital export since the early 1980s. The main destination of capital outflow through this channel has been the United States. This is a contrasts with the situation in the 1970s, when Japanese residents actively raised funds by issuing a large amount of securities in foreign capital markets, especially in Europe. It is noteworthy that during the late 1970s (1977 - 1981), the group of developing countries(ONCC) was a net capital exporter to Japan. According to Table 6, this group's net capital export to Japan through 'securities' was a little larger than its net capital import from Japan through direct investment during 1977 - 1981.

(4) The international institutions had been relatively important capital importer from Japan during the 1970s, while its relative share has been declining since the early 1980s.

Japan's direct investment: We can obtain more detailed information about Japan's direct investment. Table 7 presents the total amount and the regional distribution of the direct investment. According to this table, during the 1970s and 1980s, Japan's direct investment showed a remarkable increase. Tt increased by almost ten times from 1970 ($ 0.9 billion) to 1981 ($ 8.9 billion). This was partly because the Japanese government started to mitigate many of the restrictive regulations on the capital export including direct investment at around 1970. Beginning in the 1980s, direct investment seems to have continued to increased. There has been a tremendous increase in the direct investment for North America, most of which was in the United States.

Table 7: Japan's Direct Investment (US $ million)

Fiscal year	1971	1972	1973	1974	1975
Asia	237(27.6)	402(17.2)	998(28.6)	731(30.5)	1,101(33.6)
Indonesia	112(13.1)	119(5.1)	341(9.8)	375(15.7)	585(17.8)
Hong Kong	41(4.8)	29(1.2)	123(3.5)	51(2.1)	105(3.2)
Korea	28(3.3)	146(6.2)	211(6.0)	77(3.2)	93(2.8)
Malaysia	12(1.4)	13(0.6)	126(3.6)	48(2.0)	52(1.6)
Philippines	5(0.6)	10(0.4)	43(1.2)	59(2.5)	149(4.5)
Singapore	15(1.7)	42(1.8)	81(2.3)	51(2.1)	55(1.7)
Taiwan	12(1.4)	10(0.4)	34(1.0)	33(1.4)	24(0.7)
Thailand	9(1.0)	30(1.3)	34(1.0)	31(1.3)	14(0.4)
North America	230(26.8)	406(17.4)	913(26.1)	550(23.0)	905(27.6)
Latin America	140(16.3)	282(12.1)	822(23.5)	699(29.2)	371(11.3)
Near East	36(4.2)	236(10.1)	199(3.1)	64(2.7)	196(6.0)
Europe	84(9.8)	935(40.0)	337(9.6)	189(7.9)	333(10.2)
Africa	21(2.4)	34(1.5)	106(3.0)	55(2.3)	192(5.9)
Oceania	110(12.8)	42(1.8)	208(6.0)	108(4.5)	182(5.5)
Total	858	2,338	3,494	2,395	3,280

Source: Ministry of Finance, Fiscal and Monetary Statistics Monthly, various issues.

Table 7(continued): Japan's Direct Investment (US $ million)

Fiscal year	1976	1977	1978	1979	1980
Asia	1,245(36.0)	865(30.8)	1,340(29.1)	976(19.5)	1,186(25.3)
Indonesia	929(26.8)	425(15.1)	610(13.3)	150(3.0)	529(11.3)
Hong Kong	69(2.0)	109(3.9)	158(3.4)	225(4.5)	156(3.3)
Korea	102(2.9)	95(3.4)	222(4.8)	95(1.9)	35(0.7)
Malaysia	54(1.6)	69(2.5)	48(1.0)	33(0.7)	146(3.1)
Philippines	15(0.4)	27(1.0)	53(1.2)	102(2.0)	78(1.7)
Singapore	27(0.8)	66(2.4)	174(3.8)	255(5.1)	140(3.0)
Taiwan	28(0.8)	18(0.6)	40(0.7)	39(0.8)	47(1.0)
Thailand	19(0.5)	49(1.7)	32(0.7)	55(1.1)	33(0.7)
North America	745(21.5)	735(26.2)	1,364(29.7)	1,438(28.8)	1,596(34.0)
Latin America	420(12.1)	456(16.3)	616(13.4)	1,207(24.2)	588(12.5)
Near East	278(8.0)	225(8.0)	492(10.7)	130(2.6)	158(3.4)
Europe	337(9.7)	220(7.8)	323(7.0)	495(9.9)	578(12.3)
Africa	272(7.9)	140(5.0)	225(4.9)	168(3.4)	139(3.0)
Oceania	162(4.7)	165(5.9)	239(5.2)	582(11.7)	448(9.5)
Total	3,462	2,806	4,598	4,995	4,693

Source: Ministry of Finance, Fiscal and Monetary Statistics Monthly, various issues.

Table 7(continued): Japan's Direct Investment (US $ million)

Fiscal year	1981	1982	1983	1984	1985
Asia	3,338(37.5)	1,384(18.0)	1,847(22.7)	1,628(16.0)	1,435(11.7)
Indonesia	2,434(27.3)	410(5.3)	374(4.6)	374(3.7)	408(3.3)
Hong Kong	329(3.7)	400(5.2)	563(6.9)	412(4.1)	131(1.1)
Korea	73(0.8)	103(1.3)	129(1.6)	107(1.1)	134(1.1)
Malaysia	31(0.3)	83(1.1)	140(1.7)	142(1.4)	79(0.6)
Philippines	72(0.8)	34(0.4)	65(0.8)	46(0.5)	61(0.5)
Singapore	266(3.0)	180(2.3)	322(4.0)	225(2.2)	339(2.8)
Taiwan	54(0.6)	55(0.7)	103(1.3)	65(0.6)	114(0.9)
Thailand	31(0.3)	94(1.2)	72(0.9)	119(1.2)	48(0.4)
North America	2,497(28.0)	2,905(37.7)	2,701(33.2)	3,544(34.9)	5,495(45.0)
Latin America	1,811(13.3)	1,503(19.5)	1,878(23.1)	2,290(22.6)	2,616(21.4)
Near East	96(1.1)	124(1.6)	175(2.1)	273(2.7)	45(0.4)
Europe	798(9.0)	876(11.4)	990(12.2)	1,937(19.1)	1,930(15.8)
Africa	573(6.4)	489(6.3)	364(4.5)	326(3.2)	172(1.4)
Oceania	424(4.8)	421(5.5)	191(2.3)	150(1.5)	525(4.3)
Total	8,906	7,703	8,145	10,155	12,217

Source: Ministry of Finance, Fiscal and Monetary Statistics Monthly, various issues.

Japan's direct investment for Asian countries seems to have been stagnant, its relative share declining. The direct investment to Indonesia was important. At times, it accounted for more than half of the total of Japan's direct investment for the Asian countries. Therefore, the latter has tended to fluctuate in a parallel direction with the former.

The characteristics of the change in direct investment partly reflect the macroeconomic problems Japan has been facing; i.e., the sharp appreciation in the real exchange rate of the Japanese yen and the severe trade friction with the United States and other western countries. Japanese firms, especially big companies, have been eager to expand their plants in the United States and other industrialized countries with a view to easing strained trade relations with those countries.

Another structural change in the Japan's investment is noteworthy. The banking and financial service industry have been increasing their direct investment, most of which is directed toward the financial center of advanced countries. For instance, in 1985 the direct investment in banking and insurance amounted to $ 3.8 billion, which accounted for 31% of the total of direct investment that year, while it was just $ 452 million in 1975 (9.5 % of the total).(5) The manufacturing industries are relatively stagnant and the banking and financial service industries are relatively prosperous, and that explains this change in direct investment.

---

5)See Keiji Nakatani, "Japan's Foreign Direct Investment during 1985F.Y.," Kaigai-Tosi Kenkyusho-Hou, Vol.12, No.11, Nov. 1986.

A Summary: The structural changes in Japan's capital export clearly corresponds to those in the global capital flow that have already been explained in the previous section. The loan and direct investment were reduced in their relative importance because the capital export to developing countries has been less important in the world capital market. In contrast, borrowers of the advanced economies, especially in the United States, have been quite active in raising funds in the world capital market. Their main instruments are securities. During 1982 - 1986, a little more than one-third of Japan's net capital export was directed to the United States through the channel of 'securities'. At the same time, the E.C. countries also became important capital importers from Japan.

In short, since the early 1980s, the capital flow of the world capital market has been almost entirely confined to advanced countries. From the viewpoint of developing countries, this situation of the world capital market must look like an unfortunate 'distortion', because most of them need substantial net capital exports to promote their economic development. They may regard the present structure of Japan's capital export as disappointing, because the structure seems to have been following rather faithfully to the 'distorted' pattern of world capital flow. Since Japan is the most important capital exporter in the world, its capital export would be quite influences the structure of the world capital flow. In this regard, how Japan should behave as a capital exporter is an extremely important question to the future of the world economic development.

4. Positive and Normative Analysis of the World Capital Flow.

In this section, we positively analyze reasons for the structural changes in the world capital flow, and derive some normative implications, especially those for Japan as an important capital exporter.

The structural change in the capital market and the information production: The main channel of the world capital flow transferred from the loans of the 1970s (and the beginning of 1980s) to the securities of the 1980s (since the debt crisis). The transfer was closely related to the change of major borrowers in the world capital market, i.e., the LDCs' borrower have been crowded out by borrowers from advanced economies. First, we will theoretically discuss these structural changes.

Structural change can be explained in terms of different degrees of imperfect information. Financial transactions are accompanied by more or less imperfect information. Therefore, financial intermediaries must collect and analyze the information concerning credibility of borrowers. However, it may be difficult for financial intermediaries to sell the information they collect and analyze because of market failure. Two reasons are provided for the market failure of information transaction. One is the problem of appropriability of information. Since information is easy to be copied, sellers of any specific information could not obtain full market value. Another is the so-called 'lemon problem' emphasized by Akerlof(1970).(6) For buyers, it is difficult to evaluate the quality of information before they decide whether to buy it or not. After they buy and use it for a particular purpose, they may find it useless or misleading. In this case, they could ask sellers to repay them as a result of

the bad quality of information. However, it would usually take both laborious and lengthy procedures.

Because of the market failure in information transactions, financial intermediaries tend to utilize by themselves the information they 'produce'; that is, financial intermediaries lend funds acquired by issuing their own IOU ('indirect securities' by the terminology of Gurley and Shaw (1960))(7) by utilizing the information to evaluate the credibility of various borrowers. This is a form of financial intermediation called 'indirect finance'. In 'indirect finance', the primary borrower such as nonfinancial companies borrows from banks and other financial institutions, and, in turn, these financial institutions borrow from the primary lender represented by households.

Another form of financial intermediation is 'direct finance'. In 'direct finance', primary borrowers issue their 'primary securities' directly to primary lenders. Financial intermediaries provide brokerage services and information with both borrowers and lenders, but they do not commit their own funds to lending. This 'direct finance' is possible because the degree of imperfect information and therefore the necessity of information production is relatively low. In other words, where the degree of imperfect information is serious, the financial intermediation through 'indirect finance' would be more efficient than through 'direct finance'

---

6)See G. Akerlof, "The Market for Lemons: Quality Uncertainty and the Market Mechanism," Quarterly Journal of Economics, Vol.84, 1970.

7)J. G. Gurley and E. S. Shaw, Money in a Theory of Finance, Brookings Institution 1960.

It is easy to give a casual evidence of the proposition stated in the last paragraph. Issuing a bond is a representative method of 'direct finance'. In general, only famous companies and governmental institutions can raise funds by issuing bonds in the capital market. Small borrowers that have not yet established their reputation as a credible borrower in the financial market are not permitted to issue their bonds or, if permitted to do so are under severe restrictions. The differentiation between big borrowers and small borrowers in the bond market is due to the different degree of imperfect information between borrowers. While the formers are widely recognized as credible borrowers, the reliable information about the latter has not been accumulated and therefore the degree of informational imperfection is rather serious. Thus, small borrowers must rely their necessary funds on borrowing from banks and other financial institutions that are information specialists.

The recent structural change in the world capital market can be explained with similar reasoning. The rapid increase in the LDC's borrowing during the 1970s was not accommodated by expansion of the international bond market, e.g., the Euro bond market, but by expansion of banks' loan supply. This was because banks had the comparative advantage of dealing with imperfect information and with the financial intermediation of LDCs' borrowers who had not established their reputation in the world capital market.

At the same time, the expansion of bank loans to the LDCs was promoted by the financial innovation and bankers' optimism. For example, banks widely utilized the syndicated loan as a means of diversifying country risk of loans to the LDCs. In addition, the cross-default clause was believed to be effective in enforcing the government of a borrowing country to take some appropriate policy measures to prevent borrowers in the country from defaulting on their

liabilities.(8) Some scholars point out that lenders based their optimism on the so-called 'sovereign risk hypothesis', according to which sovereign loans to developing countries would never be defaulted on in contrast with loans to private agents in those countries.(9)

The debt crisis and economic difficulties of developing countries that caused the crisis clearly wiped out the optimism held by lenders in the world capital market, and deteriorated the imperfect information characterizing loans to those countries. As Lessard and Williamson (1985) point out, the main part of nonconcessional financing secured by developing countries took the form of general obligation borrowing, in which the borrower underakes to use his general revenues to service his debt on terms independent of the success of the investment made with the loan.(10) This type of loan does not contain an explicit aspect of risk-sharing between lenders and borrowers, but it is subject to the danger of 'moral hazard' on the part of borrowers. When lenders become extremely skeptical about borrowers' ability to service their debt, and when lenders become less informed about the prospects of borrowers' economic development, lenders ration credit to avoid future loss due.

---

8)See D. Folkerts-Landau, "The Changing Role of International Bank Lending in Development Finance," IMF Staff Papers, Vol.32, No.2, June 1985.)

9)See R. Plan, External Debt Rescheduling, Manzsche Verlags und Universitats Buch Handlung, 1985.)

10)See D. R. Lessard and J. Williamson, Financial Intermediation beyond the Debt Crisis, Institute for International Economics, no.12, Sept. 1985.

Thus, borrowers, except for those who are perceived to be unquestionably credible, will experience difficulty finding new funds supplied through this channel.(11)

Well-known companies and a number of governments from advanced countries have increased their borrowing in the world capital market in place of borrowers from the LDCs. Since they have either already established their reputation in the capital market or are more credible than general fund raisers, the increase in relative shares of their borrowing implies a decrease in the necessity of producing information in the process of financial intermediation in the world capital market. Therefore, the bond market and related securities markets have become more important to the channel of capital flow than the loan market.

This explanation of credit-rationing may be applicable to the domestic and the international financial mechanism. However, it seems to be more relevant to the case of international lending, because it is sometimes difficult for the lender to take monitor borrowers' behavior. If we want to prevent the imperfect information between lenders and borrowers from destroying the efficient mechanisms of financial markets, we should monitor borrowers and resolve conflicts of interest between these parties. However, at present, we cannot have a reliable mechanism for doing these jobs in the international capital market. This can be regarded as the most fundamental reason for the existing unstable condition in the international capital markets.

---

11) See Guttentag and Herring(1984), ibid.

Direct investment and limitation on risk-sharing: As has already been explained, the general borrowing obligation was the most diffused method of capital flow during the 1970s and the beginning of 1980s. Most economists argue the shortcoming of this form of capital export to the LDCs. According to their argument, the shortcoming arises because the general borrowing obligation does not contain the explicit risk transfer from borrowers to lenders. The general borrowing obligation puts too much pressure upon the LDCs' borrowers because the borrowers must service their debt whether or not they can obtain a good return from the investment financed by the loan. Thus, in the case of the general borrowing obligation, losses resulting from investment projects can be passed on to the lender only by a default or the credible threat of default. This is obviously a costly strategy for the borrower as well as the lender. At the same time, since the lender has little stake in the success of the project, he has little motivation for intervening in its design or management.(12)

In order to improve the efficiency of the world capital market more funding should be supplied to the LDCs in the form of risk capital, i.e., the instruments that implies a transfer of risk from the borrower to the lender. A major form of risk capital is the portfolio investment in stocks (equities) quoted on public stock markets. Investors in stocks can obtain a share in the profits of borrowers by assuming risks associated with the borrowers' project.

However, from the view point of the fund supplier, there still remain the possibility of incurring losses due to a sort of 'moral hazard' on the part of fund raisers. If outside stock holders cannot monitor and control managers'

---

12) See Lessard and Williamson (1985), ibid.

(and inside stock holders') decision-making concerning resource allocation within the enterprise, it is likely that managers and inside holders will decide to utilize the production possibility to improve their economic welfare, including the welfare of domestic residents at the expense of profits for outside stockholders, or foreign lenders.13) It is, therefore, not surprising that outsiders desire to directly control the enterprise for the purpose of avoiding the loss from managers' moral hazard. Direct investment has traditionally been the most important mechanism for providing risk capital in developing countries. As we have discussed in the previous section, this is the case of Japan's capital export to developing countries. Table 5 shows that direct investment has been the most steady means through which Japan exports capital to developing economies, including ASEAN countries.

Thus, we should expect direct investment to be the most important channel through which risk capital is directed to the LDCs. But, we should pay enough attention to the limitations of direct investment. The first limitation is that direct investment implies of foreign control of real resources located in borrowing LDCs. There is some possibility that the conflicts of interest will occur between the foreign company and the host country. While the former is seeking to maximize its total financial profits, the latter is naturally interested in maximizing local value-added or total social benefits

---

13)This is an example of the agency problem emphasized by Jensen and Meckling (1976) in the context of corporate finance. See M. Jensen and W. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs and Capital Structure," Journal of Financial Economics, Vol.3, No.4, Oct. 1976.

that includes not only private profits from direct investment but also some externality the direct investment may bring about to it. The host country, therefore, tends to limit the extent to which foreigners exert control over its domestic real resources.

Actually, while promoting direct investment from abroad in key industries by means of specific subsidies, most ASEAN countries have introduced some restrictive regulations on foreign direct investment. For example, the ceilings have been imposed on the share of stocks foreigners can hold in some industries. The investing firm has also been required to employ more than a certain number of native workers. These regulations weaken the foreign firm's incentive to make direct investment in those countries.(14)

Furthermore, the direct investment may not be a reliable means for the host developing country to import foreign capital because it tends to be profoundly influenced by various conditions in the capital exporting country. In some cases, direct investment has been quite active in those industries that are heavily protected by both tariff and non-tariff barriers. In other cases, foreign firms of labor-intensive industries have been eager to build factories in those developing countries where wages are relatively low. Recently, some

---

14)In my opinion, Japan is not in a position to blame other countries for the regulation on direct investment. Japan had retained severely restrictive regulation on foreign firms' direct investment to Japan until around 1970. Particularly, the ministry of international trade and industry was obsessed by the principle that the foreign firm should not be permitted to hold more than 50% of stocks of a particular Japanese firm.

big companies, particularly Japanese ones, are seeking an outlet of their capacity in foreign countries with a view to both reducing the damage of appreciation of exchange rates and avoiding the trade friction caused by the direct export of commodities to the host country.(15) These motivations of capital exporting countries are obviously independent of the development strategy of the host country. The government of the host country may want to minimize the disturbing influence of the direct investment.

How to improve the efficiency of the world capital market: Generally speaking, there are two problems to be resolved as soon as possible in the world capital market: i.e., (1)how to deal with the huge amount of debt a number of the LDCs have accumulated, and (2)how to promote additional supply of capital to developing countries, including those suffering from the debt crisis. While these problems are closely related with each others, we should be careful enough to distinguish them. For example, the plans of outright debt relief, which have been proposed by politician and economists, are concerned with the first problem.(16) These plans should be welcome as an effective resolution to the first problem. However, from the perspective of capital suppliers, it is likely that they would rather encourage the LDCs' borrowers to behave poorly in

---

15)Needless to say, this accounts for the recent remarkable increase in Japan's direct investment for the United States and European countries.

16)See, for example, J. Sachs, "Managing the LDC Debt Crisis," Brookings Papers on Economic Activity, No.2, 1986.

in the future. If so, the outright debt relief would discourage capital suppliers to export additional fund to the LDCs. Thus, it is not obvious whether the plans are effective.

The investigation in this paper sheds some light on the effective resolution to the second problem. We have emphasized that the danger of market failure potential in the world capital market was abruptly revealed by the debt crisis at the early 1980s. This market failure was caused by the severely asymmetric information between lenders in advanced economics and borrowers in the LDCs, and seems to have given rise to credit-rationing. Therefore, for the world capital market to regain its efficiency, we should directly attack this problem of market failure.

Since, as we have argued, the deterioration of imperfect information between the lender and the borrower is the fundamental cause of the market failure, some public authorities must supply a sort of 'public service' of intermediating them in the world capital market. They are required not only to supply the reliable information concerning the borrower's credibility and to stand guarantee for the borrower, but also to play a role of monitoring borrowers' moral hazard and of coordinating conflicts of interest between lenders and borrowers. Specifically, this is needed because more Japanese capital will have to be directed to the LDCs in the near future.

We have argued that the direct investment is, to some extent, an effective means to overcome the difficulty of imperfect information, because the direct investment gives a capital supplier larger control over a project. But, this advantage for lenders may pose a problem for LDCs' borrowers. At the same time, Japan's increased direct investment has been going to industrialized countries, especially the U.S., as a result of recent changes in Japan's industrial struc-

ture and the growing severity of trade friction between Japan and advanced economies. Furthermore, we should note that the channel of direct investment has been losing its relative importance in the world capital market. These suggest that we should rely on other channels if Japan's capital export to developing countries is to be increased. This consideration of the limitation of direct capital strengthens our argument for the 'public authority's intermediation' in the world capital market.

Then, who will be the 'public authority' in the capital market? For instance, the Japanese government cannot be the public authority in this context. This is because it must almost always speak for the Japanese residents, and thus lacks the neutrality required for a coordinator or an intermediator in the world capital market. The multilateral institutions such as the World Bank and IMF can and should play a role of a 'public authority' that supplies the public service of intermediation. In order for the world capital market to be more efficient in channeling sufficient amount of capital to the LDCs, multilateral institutions must be greatly improved as soon as possible. For that purpose, the advanced countries including Japan should support the institutions.

For instance, the Japanese package for the Venice summit included a proposal to recycle $ 20 billion to the rest of the world. In addition to the previously committed $ 10 billion, Japan is to recycle $ 30 billion over the coming three years, most of which consists of contributions to the World Bank and other international organizations. While it is criticized because it does not include gants-in-aid to LDCs, this plan of recycling will help the 'public authorities' extend their role in the world capital market.

The multilateral organizations could increase the efficiency of their operation as a intermediator without increasing their capital bases. IMF's con-

ditionality imposed upon borrowing countries has been rather widely used as a signal that conveys the credibility of the borrowing country to the world capital market, although some economists criticize the present conditionality because it is too hard on borrowing countries. Needless to say, the world capital market badly needs some sort of signalling mechanism to mitigate the the asymmetric information between lenders and borrowers. The multilateral organizations could and should supply the signalling service as a intermediator in the world capital market. Japan should invest much more money to help them improve their efficiency as a intermediators.

5. Concluding Remarks

In this paper, we investigated structural changes both in world capital market and Japan's capital export. The pattern of capital flow has drastically changed since the debt crisis that came to the surface at the beginning of the 1980s. In the world capital market, the LDCs' borrowers have been crowded out by those from advanced countries, especially the United States. In parallel with the structural change, the relative importance of the respective channels of capital flow has also greatly changed. We observed a remarkable rise of the channel of securities in the world capital market.

Those structural changes were explained in terms of a simple economic theory. We emphasized one aspect of the market failure in the world capital market. Specifically, the debt crisis decreased the quality of information available to lenders in the world capital markets (e.g., big banks from some advanced countries), which has made it quite hard for some LDCs to import net

capital.

If the present 'distortion' in the world capital market is to be remedied, we should overcome the market failure just mentioned. The world capital market must establish an efficient mechanism of intermediating sharp conflicts of interest between lenders and borrowers. The multilateral organizations such as the World Bank and IMF will have to be more efficient as intermediators. Japan could contribute to the improvement of their efficiency.

In this paper, we confined our discussion to the problem of mechanisms of the world capital market. We did not discuss Japan's aid to LDCs. Generally speaking, Japan should not hesitate to increase aid to LDCs including some Asean countries. However, the problem of what form of aid is desirable in promoting LDCs' economic development remains to be investigated.