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THE LIBERALISATION OF JAPAN'S FINANCIAL MARKETS: SOME MAJOR THEMES

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Introduction*

Japan has risen to great prominence in the financial world in the space of very few years. One rough-and-ready indicator of this is the sharp jump in Japan's share in portfolio capital movements. In the late 1970s, Japan accounted for about 15% of total outflows from the larger industrial countries, well below that of the United States and the European Community (see Graph 1). In the first half of the 1980s, however, the United States had been overtaken and, in the second half, Japanese outflows exceeded those of the United States and Europe combined. Only in 1990 did a sharp fall occur.

Behind this remarkable trend lay two key features. The first was the emergence of Japan as the major exporter of capital. With savings well in excess of domestic investment for much of the period, there was a heavy flow of Japanese funds overseas, the cumulative current account surplus during the second half of the 1980s amounting to over $350 billion. The second, partly related, was the greatly increased importance of Japanese financial institutions – banks, securities houses, insurance companies and so on – in international financial markets.

The ample supply of funds and the evident growing expertise of Japanese financial institutions – witness their rapid penetration of foreign markets – might have been expected to make Japanese financial markets particularly attractive for foreign fund-raisers. Yet relatively little foreign fund-raising has occurred in Japan in recent years despite a major programme of

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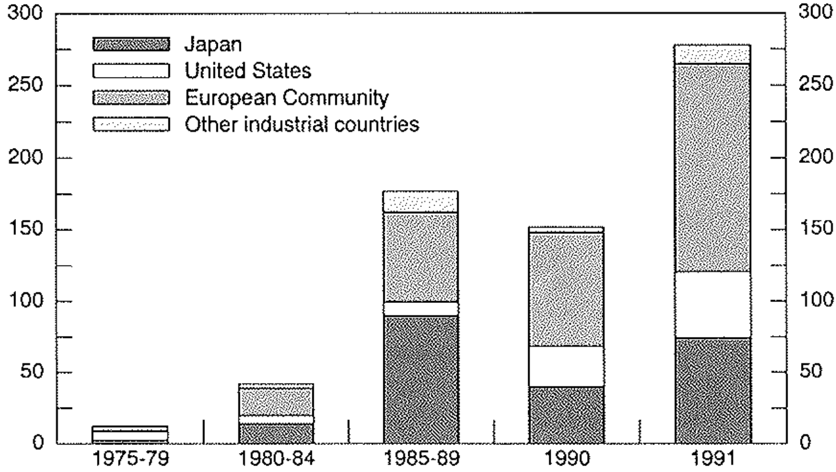
Graph 1

International portfolio capital movements*

Annual averages, in billions of US dollars



* Gross capital outflows.

Source: Bank for International Settlements (1992) on the basis of national data and IMF Balance of Payments Statistics.

deregulation in Japan's financial markets. Moreover, even Japanese corporations have tended to eschew domestic markets, and have instead raised funds – often directly or indirectly from Japanese residents – via international markets. This is something of a paradox, and how far it has reflected residual restrictions in the domestic markets is considered below.

The first half of this paper assesses the extent of change in the traditional, regulated, Japanese market in recent years. It traces the changes in six classical features of the earlier regulated system – rigid exchange controls, the virtual absence of securities markets, financial institution segmentation, interest rate controls, the importance of public sector financial intermediation and a banking system geared to enterprises, not households. The changes have been far-reaching.

One prominent theme that has surfaced in the last couple of years is the so-called "bubble" economy, and its deflation in the early 1990s. Indeed, the marked volatility of asset prices in recent years has, as elsewhere, coincided with the process of deregulation and innovation in financial markets – although it would be a mistake to attribute this solely to liberalisation. The start of the long and steep decline in equity and real estate prices in the early 1990s broke a number of trends established during the previous decade, and subjected financial institutions to considerable strain.

The second half of the paper examines the pattern of internationalisation observed. "Internationalisation" covers many different facets, of course, and this paper looks at the issue from three angles: the extent to which non-residents have been able to use Japanese financial markets to tap excess domestic savings; non-resident interest in Japanese financial assets; and Japanese corporations' extensive use of foreign financial markets. These three topics are considered in successive sections. A penultimate section looks more closely at Japanese banks' international business, with particular emphasis on their sharply rising share in the Euro-markets up to 1989, and their considerable retrenchment since then. A final section draws together some important themes of internationalisation.

The conclusions consider the main international and other implications of recent developments in Japanese financial markets.

How the traditional features have changed[1]

The financial system in Japan up to the early 1970s was tightly regulated and highly protected, as was indeed that in many other industrial countries. At the risk of some oversimplification, the key characteristics of this system were perhaps six. First, tight exchange controls were maintained on both inward and outward movements of capital. Secondly, markets for financial securities were not highly developed. Thirdly, financial institutions were rigidly segmented: on the liabilities side, the permitted methods of raising funds were defined and, on the assets side, the form of loans that could be extended and other assets acquired were both circumscribed. This segmentation went hand in hand with an extensive web of interest rate controls, the fourth key feature of the earlier system. The fifth characteristic was the importance of public sector financial institutions. Lastly, banks

[1] This section draws on Cargill and Royama (1988), Economic Planning Agency (1984), Eken (1984), Feldman (1986), OECD (1984), Suzuki (1987) and Tatewaki (1991). The latest Fair Fact Series is a useful compendium of recent changes (FAIR (1991)).

lent primarily to enterprises, and not to households. Favoured borrowers were granted loans at low interest rates.

Japan's extraordinarily good macroeconomic performance during the twenty years preceding the first oil shock should serve as a strong warning against jumping to any conclusion that this highly regulated system was "inappropriate". It clearly worked. And it can be argued that the process of rapid industrial growth that Japan went through in the post-war period implied an excess demand for investible funds; with the relative scarcity of information about new enterprises in such an economy a case can be made for relatively heavy government involvement in the financial system.[2] Once this process was complete, the financial system that had accompanied it gradually became less tenable. The specific pressures for change in the early 1970s came from two main sources, one international and the other, more important, domestic.

The international factor that made the traditional system less and less tenable was the emergence of Japan as a capital exporter. Up to the mid-1960s, Japan was a current account deficit country. During the 1950s and the first half of the 1960s, rapid growth led to periodic balance-of-payments crises which typically necessitated measures to restrict demand: the current account – rather than inflationary pressures – was widely regarded as the binding constraint on growth. But from the mid-1960s, a persistent current account surplus began to emerge.[3] Even the two severe oil price shocks of the 1970s did little more than delay the emergence of a sizable structural surplus. The initial response of the Japanese authorities was, in effect, to allow this surplus to feed into the foreign exchange reserves, allowing monetary policy to be much too expansionary.[4] Once the inevitable limits to this policy were reached, and the exchange rate allowed to rise under the pressure of mounting current account surpluses, it became clear that maintaining restrictions on private capital outflows served to intensify upward pressure on the exchange rate. Controls on outward investment therefore had to be relaxed to allow Japan's surplus to be invested abroad.

[2] Teranishi (1990) and (1991) presents an interesting argument along these lines.

[3] The OECD survey of the Japanese economy at the end of the 1960s, commenting on the emergence of an external surplus, noted that "Japan may remain an important surplus country for some time to come [and that] the beginning of this trend could be traced as far back as 1964". (See OECD (1969), pp. 39–42.)

[4] Komiya and Suda (1991) give an illuminating account of the evolution in official attitudes over this period.

Domestic pressure undermining the traditional system arose primarily from a major shift in the real sector of the economy.[5] This transformation was associated with a radical change in saving/investment balances among sectors. During the High Growth Era of the late 1950s and the 1960s, the corporate sector invested heavily and was thus the largest borrower; government and public sector deficits remained small. On a flow-of-funds basis, the corporate sector's deficit averaged 7 to 8% of GNP in the 1960s, while the public sector's deficit was less than 2% of GNP; the personal sector's surplus was between 8 and 9% of GNP.

With the first oil shock, which hastened the decline of capital-intensive heavy industry and contributed to slower growth worldwide, the investment ratio fell, greatly reducing the corporate sector's need for borrowed funds (see Graph 2). To offset the deflationary effect of this investment slump, public expenditure was increased, and public sector deficits rose sharply. By the late 1970s, the corporate sector's net borrowing requirement was only around 3% of GNP, while the government sector deficit had risen to over 5% of GNP (more if public enterprises are included). This shift engendered a huge rise in the supply of government bonds – and the provision of high-quality paper on such a scale could not but foster the development of freer securities markets. (As discussed more fully below, much of the drastic reduction in the corporate sector's borrowing requirement was reversed during the easy money period of the late 1980s.)

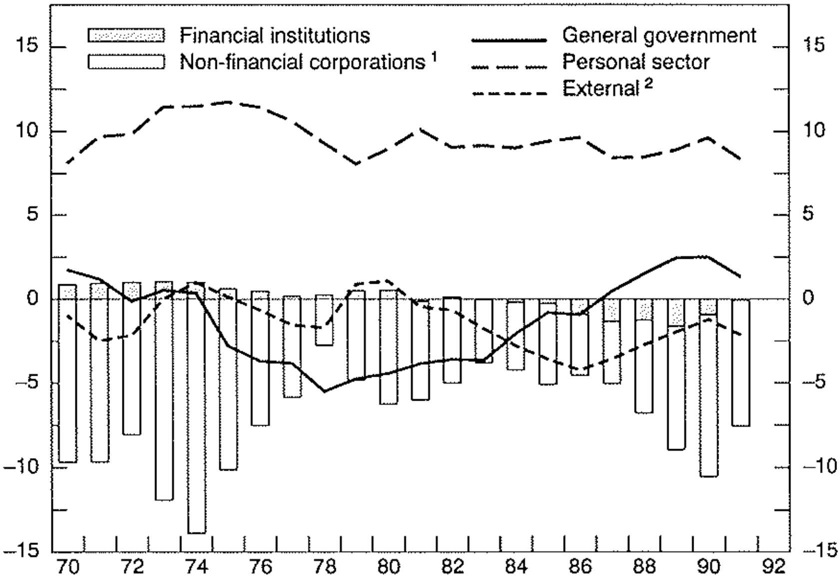
In the 1970s, then, the domestic pressures for change were strong and persistent. By contrast, the wide swings in the current account during this decade, as Japan was buffeted by successive oil shocks, gave the international pressures stemming from Japan's emerging position as a capital exporter a more cyclical aspect, and disguised the underlying trend. For this reason domestic liberalisation tended to precede, and be more important than, international liberalisation – at least in the early stages of the reform. However, international liberalisation caught up with domestic liberalisation with the abolition of exchange controls at the end of 1980. Moreover, as the process of reform unfolded in the 1980s, Japanese institutions became able, in international financial markets, to undertake

[5] Cargill and Royama (1988) compare this with the United States, where pressure for change arose mainly from the monetary sector (viz. contractionary monetary policy widened the gap between regulated and unregulated interest rates).

Graph 2

Saving/investment balances, by sector

As a percentage of GNP



[1] Including public enterprises. [2] A negative sign indicates net lending to the rest of the world (i.e. a current account surplus).

Note: 1991 figures are approximate estimates only, based on financial balances from flow-of-funds data.

Sources: Economic Planning Agency *Annual Report on National Accounts* and Bank of Japan *Economic Statistics Monthly.*

certain operations that were still restricted at home; in this sense, international liberalisation eventually went beyond domestic liberalisation. The implications of this sequence provide an important theme for this paper.

The following paragraphs, on how the six features of the traditional system have changed over the last fifteen years or so, consider, in particular, how far market forces have supplanted regulatory determination. A more detailed description of the precise reforms is given in the *Chronology* in Appendix I: a glance at this *Chronology* confirms the assiduity with which a gradual, step-by-step approach was pursued.

Table 1

Volume of foreign exchange transactions in Tokyo

In billions of US dollars

	Spot	Forward	Swap	Total
1970	4.9	4.2	2.6	11.8
1975	22.9	26.0	24.6	73.4
1980	211.8	66.8	300.6	579.2
1985	445.8	4.4	957.0	1,407.2
1988	1,358.9	0.0	2,916.9	4,275.8
1989	1,851.4	0.0	3,614.3	5,465.7
1990	2,495.7	0.0	3,466.9	5,962.5
1991	1,698.8	0.0	2,971.8	4,670.6

Note: These figures are based on the regular reporting by foreign exchange brokers, and are therefore less comprehensive than the surveys conducted in April 1989 and April 1992.

Sources: Eken (1984) and Ministry of Finance *Annual Report of the International Finance Bureau.*

Controls on capital movements[6]

It is widely agreed that tight capital controls up to the early 1970s insulated Japan's financial markets from external influences – and perhaps did so with greater success than most other major countries could manage.[7] The annual volume of foreign exchange transacted in Tokyo was, at the beginning of the decade, only a little more than $10 billion – only about 60% of the volume of exports at that time (see Table 1). Not only were portfolio capital flows small, but even international transactions related to trade were carried out overseas or were kept internal to the huge trading companies.

Although there was a general trend towards liberalisation of capital movements in the 1970s, the nature and timing of measures was biased by exchange rate objectives. When the authorities wanted to contain upward pressure on the yen, restrictions on capital outflows were typically relaxed (and sometimes controls on inflows were retightened); and conversely when the yen came under heavy downward pressure.

Five phases can be distinguished in the 1970s: these are illustrated in

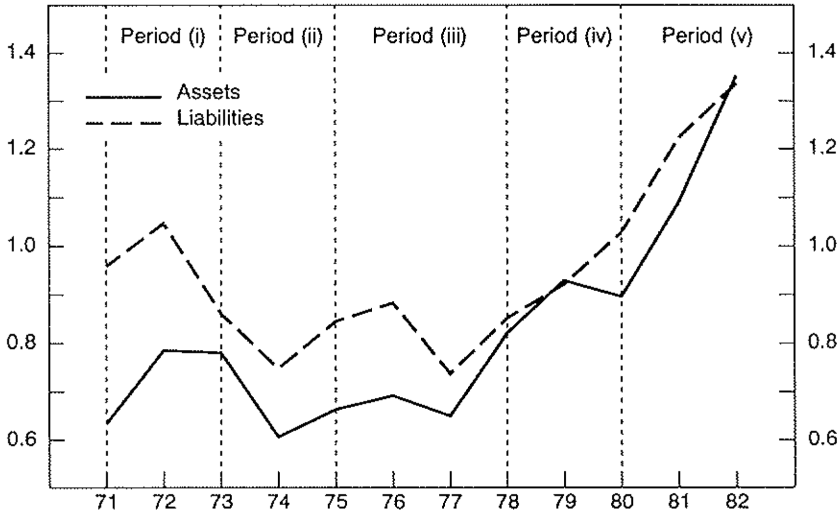
[6] Fukao (1990) provides a useful overview of the evolution of foreign exchange controls.

[7] This argument is developed by Argy (1987), who cited OECD evidence that the effect of interest rate differentials on Japanese capital flows was, at that time, weaker than for other major industrial countries. See also Iwami's (1992) assessment.

Graph 3

Private external assets and liabilities

As a proportion of annual merchandise trade



Source: Bank of Japan *Economic Statistics Annual*, various issues.

Graph 3.[8] During 1971–72 (Period (i) in the graph), the strong appreciation of the yen led to a relaxation of controls on outflows and still tighter controls on non-resident inflows. The consequence of these measures was that non-official external liabilities actually declined relative to the average value of merchandise trade, while assets rose. The dramatic current account deterioration in the wake of the first oil shock was associated with downward pressure on the yen that led the authorities to back-pedal and reimpose restrictions on resident outflows: by 1975 private sector external assets had fallen back to about two-thirds of the average value of trade, close to the ratio at the beginning of the decade. The re-emergence of a current account surplus and the associated upward pressure on the yen after 1975 led the authorities once more to liberalise outflows and restrict inflows. Japanese non-official foreign assets rose strongly, while foreign-held assets in Japan stagnated – again measured in relation to the average value of trade. The second oil shock and downward pressure on

[8] See the detailed description of measures taken in Horne (1985), pp. 222–225.

the yen in 1979 led to measures to ease controls on foreign capital inflows. During the 1970s, to summarise, such relaxation as took place was typically dictated by official exchange rate objectives, and was often reversed – at least partially – when pressure on the yen so required.

Liberalisation in the 1980s was altogether more fundamental than the on-off measures of the previous decade. The new Foreign Exchange and Foreign Trade Control Law, which came into force in December 1980, established the *general* principle that external transactions were free unless otherwise legislated, reversing the principle enshrined in the 1949 Law whereby external transactions were in principle banned unless specifically authorised by legislation or government directive. That it was the authorities' intention not to reintroduce controls for exchange rate reasons represented a new departure. And, despite a sharply falling yen in 1981 and 1982, restrictions were not in general reimposed. By the end of 1982, *both* inflows *and* outflows had risen to new highs, in marked contrast to the earlier liberalisation periods (compare Period (v) in Graph 3 with the earlier periods). Nevertheless, this Law did not in practice immediately and unconditionally commit Japan to complete freedom of capital movements.

For one thing, an elaborate reporting system was maintained, leaving the way open for the discreet exercise of official "persuasion" if desired. Also, a safeguard clause was incorporated providing for the imposition of controls in certain exceptional circumstances, viz. a deteriorating balance of payments, a widely fluctuating exchange rate and/or large capital movements adversely affecting domestic money or capital markets. In the event, however, controls were not reimposed.[9]

Secondly, the range of assets available in Japanese financial markets remained rather limited by various regulations and practices: transactions costs therefore tended to be higher than in some other major financial centres (see below), and this may to some extent have hindered capital inflows. But the weight of evidence is that arbitrage between domestic and international markets was greatly facilitated after 1980, especially after

[9] Certain regulations were, however, on occasion modified with half an eye on the exchange rate. Pigott (1983) notes that some restrictions on capital outflows were imposed by a Ministry of Finance worried about yen weakness. The ban on resident purchases of foreign currency denominated zero coupon bonds (in force from March 1982 to February 1983) is an obvious case in point; even in this case, however, concern about tax avoidance was also an important motive. Also resident purchases of foreign currency denominated CDs and CP were authorised only from April 1984: see the *Chronology*.

Table 2

Financial market integration: a bird's-eye view of some key interest rate differentials[1]

	May 1979 to Dec. 1980	Jan. 1981 to June 1984	July 1984 to June 1987	July 1987 to Dec. 1988	Jan. 1989 to Dec. 1991
Issue yield and secondary market yield on government bonds[2]					
Average	0.45[3]	0.21	0.18	0.36	0.19
Variance	*0.150*	*0.037*	*0.025*	*0.141*	*0.020*
Yield on CDs and 3-month Euro-yen					
Average	0.48	0.17	0.09	0.09	0.08
Variance	*0.247*	*0.014*	*0.002*	*0.003*	*0.002*
Yield on CDs and 3-month commercial bills					
Average	0.58	0.11	0.12	0.47	0.08
Variance	*0.227*	*0.008*	*0.005*	*0.053*	*0.002*
Yield on CDs and regulated interest rates on 3-month bank deposits					
Average	4.39	3.10	2.85	2.68	3.10
Variance	*2.452*	*0.079*	*0.190*	*0.075*	*0.181*
Yield on CDs and average rate on short-term bank loans					
Average	1.84	0.38	0.47	0.41	0.71
Variance	*1.546*	*0.053*	*0.167*	*0.073*	*0.153*

[1] On the basis of monthly average rates. Absolute differences used throughout. [2] Issue rate (mid-month) less secondary market yield at the end of the previous month. [3] January 1976 to December 1980.

Note: The use of the Gensaki interest rate to allow a longer initial period does not significantly alter the above comparisons.

Source: BIS calculations from Bank of Japan data.

the ending of limits on the conversion of foreign currencies into yen in June 1984.[10] Liberalisation vastly increased the importance of Tokyo as a foreign exchange market: total foreign exchange transactions rose from \$73 billion in 1975 to over \$1.4 trillion by 1985, and to almost \$6 trillion by 1990 (see Table 1 above). According to a recent BIS survey, net foreign exchange turnover in Japan amounted to about 15% of total reported global trading, and Tokyo had become the leading centre in the Asian Time Zone.[11]

[10] Until June 1984, limits were imposed on banks' open short positions in foreign currency in the spot market. This "swap limit rule" was intended to restrict the amount of yen that could be obtained by selling foreign currencies borrowed in markets abroad.

[11] See Bank for International Settlements (1990a) and (1990c), pp. 208–210, for further details.

A more formal indication of the degree of international integration is given in Table 2. From May 1979 (when the CDs were first issued) to the end of 1980, the average monthly differential between the interest rate on CDs and that on Euro-yen deposits was as much as 0.48 percentage points (in absolute terms). Nor was it a stable differential, as may be seen from the variance of the monthly differentials shown in Table 2. From 1981, this changed radically: the average monthly differential fell to 0.17 percentage points in the period from the beginning of 1981 to mid-1984, narrowing to less than 0.1 of a percentage point after the abolition of yen/foreign currency conversion limits. The variance fell from around 0.25 before 1980 to only 0.002 after the mid-1980s.

A third, and important, factor was that restrictions on institutional investment in foreign assets remained in place. These were only gradually relaxed, with ceilings on foreign securities holdings by insurance companies being raised in the middle of the decade.[12] It is probably fair to say that, towards the end of the decade, such ceilings as remained were sufficiently generous as to mean little, if any, effective constraint on these institutions' investment choices. In 1990 and 1991 their foreign investment share actually fell, which suggests that the period of diversification after the lifting of restrictions had been completed by the late 1980s. Japanese institutional investors have indeed diversified into foreign assets rather more than have institutions in most other countries. By the end of the 1980s, the foreign securities holdings of Japanese life insurance companies represented almost 34% of their total securities holdings; for non-life companies it was over 26% (see Table 3). These percentages are significantly above even the share registered by similar institutions in two European countries with open foreign investment policies – the Netherlands and the United Kingdom. Even public (e.g. Postal Life Insurance) and former semi-public institutions (e.g. the huge Norinchukin Bank) have diversified into foreign assets.

Most other countries impose much tighter restrictions on permitted foreign investment by financial institutions. State laws in the United States limit overseas instruments to 3% of life insurance portfolios (6% in New York). France, Germany and Italy all have regulations requiring the matching of life insurance assets with liabilities so that foreign assets are

[12] See Table 5 in Osugi (1990) for a summary of the precise regulations and the dates of their relaxation.

Table 3

Institutional investors' holdings of foreign securities

As a percentage of their total securities holdings

	1980	1985	1986	1987	1988	1989	1990	1991
United States								
Private pension funds[1]	1.0	3.0	4.0	4.0	4.0	4.1	4.2	5.2
Japan								
Life insurance companies	9.0	26.4	28.9	31.4	31.1	33.9	30.0	28.4
Non-life insurance companies	7.4	19.4	21.5	21.5	22.3	26.1	29.1	28.5
Trust accounts of banks	2.2	14.0	17.1	16.7	15.3	17.0	19.4	22.1
Postal Life Insurance	0.0	6.7	9.2	11.2	11.3	11.2	11.6	12.1
Norinchukin Bank	4.3	10.3	14.8	15.0	18.3	20.7	22.7	32.6
Canada								
Life insurance companies	2.1	2.2	2.8	3.4	2.4[2]	2.7	2.3	2.7
Pension funds	6.1	6.6	7.0	6.6	6.8	6.8	6.0	7.6
Italy								
Insurance companies	11.7	10.1	8.1	8.4	10.4	n.a.	11.6	9.7
United Kingdom[3]								
Insurance companies	6.9	17.3	19.7	15.7	17.7	22.3	20.7	
Pension funds	10.3	17.8	19.5	15.8	20.9	25.4	23.6	
Belgium								
Insurance companies and pension funds	1.7	3.3	3.8	3.3	2.8	3.9	3.3	
Netherlands								
Insurance companies	5.2[4]	10.3	11.0	11.0	11.4	10.1	9.3	10.3
Private pension funds	10.6[4]	13.8	17.6	18.0	19.3	21.3	21.1	23.5
Public pension funds	1.7[4]	2.8	3.0	3.3	3.7	4.2	5.2	5.7
Sweden								
Insurance companies				1.5	1.6	4.0	10.4	12.5

[1] Tax-exempt funded schemes (excluding IRAs). [2] Break in series from 1988 Q1. [3] Pension funds exclude central government sector but include other public sector. Unit trust investment allocated as follows: 50% foreign and 50% domestic at end-1989 (on the basis of partial survey results); other years calculated in proportion to changes in the measured share of foreign assets. [4] 1983.

Sources: Bank of Italy; Bank of Japan *Economic Statistics Annual* and *Economic Statistics Monthly;* Sveriges Riksbank *Quarterly Review;* Netherlands Bank *Annual Report* and *Quarterly Bulletins;* InterSec Research Corporation; National Bank of Belgium; Statistics Canada; UK Central Statistical Office *Annual Abstract of Statistics* and *Financial Statistics.*

permitted only to cover the foreign business undertaken.[13] A number of other countries have only very recently liberalised restrictions on foreign investment (e.g. Canada and Sweden). Thus, in this important area, Japanese policy has been more liberal than the policy of a number of other major industrial nations – at least on the face of it, although the importance of informal official pressure is probably greater in Japan than elsewhere.[14] Japanese banks have also been allowed to increase their holdings of foreign securities, which rose from 2.2% of their total securities holdings to about 22% by 1991.[15]

Underdeveloped securities markets

Until the early 1970s, neither the corporate nor the public sector had direct recourse to open capital markets, which, as a result, remained underdeveloped. The relatively strict eligibility and other requirements for issuing corporate bonds and ready access to bank loans at low interest rates meant that private corporations had little interest in issuing bonds. As postal savings and other public sector saving (e.g. of the state pension system) financed much of the borrowing needs of public corporations and the government, few government bonds were issued for much of the post-war period: indeed, no long-term government bonds were issued between 1947 and 1965. Moreover, the rather modest issues that took place up to 1975 were either placed in a special government financial institution (the Trust Fund Bureau) at below market rates, or were placed directly with underwriting syndicates of institutional subscribers, which were required to hold them for a certain period of time and which, after one year, could sell them to the Bank of Japan.[16] Indeed, about one-third of outstanding central government bonds was held by the Bank of Japan as recently as 1975.

As the volume of outstanding government bonds rose rapidly in the wake of persistently large government budget deficits, these arrangements became less and less tenable. In particular, the banks – the backbone of the underwriting syndicate up to 1975 – were faced with an unacceptable increase in government bonds on their balance sheets, and were

[13] See Davis (1990) for a fuller discussion.

[14] See Osugi's (1990) citation of official efforts to "persuade" institutional investors to continue purchasing US paper in 1987 and so support the dollar.

[15] The figures refer to trust accounts; banking accounts show a similar but less marked increase in the foreign proportion of securities holdings. In October 1986, the Ministry of Finance allowed banks to have an open position in foreign currency securities of up to 0.5% of total assets.

[16] Feldman (1986), pp. 48–56, has a good account of the history of the government bond market. Fabozzi (1990) contains a series of essays on particular segments of the Japanese bond market. On recent developments, see Bank of Japan (1986) and (1988).

Table 4

Bonds outstanding and turnover

¥ trillion, at end of calendar year unless otherwise indicated

	1975	1980	1985	1988	1989	1990	1991[1]
Central government[2] . . .	7.2	48.8	91.1	95.0	94.2	95.3	100.5
Local government[3]	6.3	15.7	18.0	16.3	16.0	15.7	16.0
Public corporations[3]	8.8	17.6	31.1	31.8	30.2	29.3	29.9
Industrial bonds	5.5	9.0	9.6	10.6	10.9	12.2	14.9
Convertible bonds	1.1	1.2	4.4	13.8	15.6	16.3	16.8
Yen-denominated foreign bonds	0.2	1.8	5.2	4.8	5.0	5.8	6.2
Total	**29.1**	**94.1**	**159.4**	**172.4**	**171.9**	**176.2**	**184.3**
as % of GNP	*19.6*	*39.2*	*50.2*	*46.9*	*43.9*	*41.6*	*40.4*
Memorandum:							
Total value of transactions	n.a.	56	894	1,021	844	734	534
Turnover[4]		*0.6*	*5.6*	*5.9*	*4.9*	*4.2*	*2.9*

[1] A change in the classification of bonds meant that some 1991 figures had to be estimated.
[2] Excluding bonds held by government agencies and the Bank of Japan. End of fiscal year.
[3] Excluding bonds held by the Trust Fund Bureau and Postal Life Insurance and Postal Annuity.
[4] Value of transactions divided by value outstanding.

Source: Bank of Japan *Economic Statistics Annual*, various issues.

therefore reluctant to continue. At the same time, sharp swings in the rate of inflation, and thus in interest rates, made bond prices much less stable, confronting subscribers and holders with the risk of capital loss. Institutions were willing to shoulder such risks only if bonds were made more liquid and if the issue rate was more closely related to market conditions.

These pressures led to a number of major reforms: the minimum holding period imposed on banks before resale was reduced; banks were allowed to sell new issues "over the counter" to the public; the maturity range of bonds was broadened; and the issue rate was more frequently adjusted to reflect secondary market yields. Although the obligation on banks to take up a certain, albeit lower, proportion of new issues remained, the burden that this had represented was in effect removed as issues came to be placed with banks at the prices that had emerged during auctions.

Continued large budget deficits led to sustained increases in the volume of outstanding bonds, from the equivalent of less than 20% of GNP in 1975 to over 50% of GNP by 1985 (see Table 4). A deep secondary

Table 5

Issues of government bonds[1]

Fiscal years

	1975	1980	1985	1988	1989	1990	1991
Total (¥ trillion)	5.4	14.2	19.9	18.2	15.8	18.3	17.0
Percentage subscribed by:							
Syndicate	84	58	35	42	46	49	56
of which:							
Banks	*74*	*40*	*24*	*26*	*24*	*21*	*20*
Securities companies . .	*6*	*15*	*9*	*14*	*21*	*27*	*35*
Trust Fund Bureau, etc.[2] .	16	30	40	35	40	36	30
Other	–	12	25	23	15	15	14

[1] Interest-bearing bonds only (i.e. excludes discount bonds). [2] Including bonds placed with the Bank of Japan.

Sources: Bank of Japan *Economic Statistics Annual*, various issues, and *Economic Statistics Monthly*.

market developed, and turnover rose sharply (see the memorandum item in Table 4). By mid-decade, banks were subscribing to only about one-quarter of new issues (see Table 5). Moreover, issues by tender had become more significant. In the second half of the decade, the share of bonds subscribed by the securities companies increased rapidly, reflecting an important widening of the capital market through sales to corporate and individual investors. Nevertheless, the market in corporate, rather than public sector, bonds did not expand very much:[17] for reasons examined below, corporate borrowers preferred to raise funds abroad.

The emergence of a large secondary market in government bonds in turn stimulated the development of freer short-term money markets.[18] Prior to 1967, only an interbank money market existed, the call-money market. No comparable market existed for non-bank short-term financing. This gap was partly filled by the Gensaki market which developed during the 1970s, involving transactions in bonds with a repurchase agreement for a specified date. This market provided short-term financing for securities companies and also served as a free, although marginal, short-term money market for non-financial corporations.

[17] Okumura (1990) attributes this in part to more cumbersome transactions in the secondary market. Non-resident transactions in this market are virtually non-existent: for a discussion of possible reasons see Okumura (1990).

[18] On this, and some implications for monetary policy, see Fukui (1986).

Table 6

The money market

¥ trillion outstanding at year-end

	1975	1980	1985	1988	1989	1990	1991
Interbank market							
Call-money market	2.3	4.1	5.1	15.7	24.5	24.0	35.3
of which: non-collateralised	–	–	*0.8*	*6.0*	*10.1*	*12.3*	*23.4*
Bill market	4.4	5.7	14.7	18.0	20.8	17.1	16.5
Dollar call	0.4	2.4	11.9	14.1	16.8	14.9	11.7
Open market							
Gensaki	1.8	4.5	4.6	7.4	6.3	6.6	6.0
CDs	–	2.4	9.7	16.0	21.1	18.9	17.3
Commercial paper	–	–	–	9.3	13.1	15.8	12.4
Marketed Financing bills[1] . .	–	–	–	1.0	0.0	1.0	–
Treasury bills[2]	–	–	–	2.0	4.0	7.6	9.0
Open market as a percentage of the interbank market	**25.4**	**56.6**	**45.1**	**74.6**	**71.7**	**89.1**	**70.4**
Memorandum:							
Euro-yen[3]	n.a.	3.6	14.0	22.4	28.0	31.3	27.5
Interbank and official monetary institutions . .		3.2	12.5	20.1	23.7	24.1	21.9
Non-bank		0.4	1.5	2.3	4.3	7.2	5.6

[1] Only those Financing bills sold by the Bank of Japan to the market (shown under Bank of Japan "Supply and demand for funds" in the *Economic Statistics Monthly*). [2] Referred to as "discount short-term government bonds" in the *Economic Statistics Monthly* issues up to December 1989; new definitions given in the January 1990 issue. [3] Cross-border and local foreign currency positions as reported in Tables 4A and 4D of the BIS banking statistics.

Sources: Bank of Japan *Economic Statistics Monthly* and *Economic Statistics Annual*, Bank for International Settlements *International Banking* and *Financial Market Developments*, Cargill and Royama (1988), Eken (1984) and Ministry of Finance *Annual Report of the International Finance Bureau.*

But as an increasing number of corporations switched their liquid funds from bank deposits to more attractive Gensaki instruments, the authorities came under pressure from banks to be allowed to issue alternative, and competing, financial instruments. Accordingly, banks were permitted to issue negotiable certificates of deposit in 1979.[19] As new financial instruments opened up further possibilities of arbitrage, the system of controlled rates in the call-money market was discontinued at about the same time, and a free bills market gradually developed. Up to the mid-1980s, however, the development of the call-money market was impeded by the need to post collateral. The development of the non-collateralised call-money market from July 1985 gave the market particular stimulus: by the end of 1990, more than half of call-market transactions outstanding were non-collateralised (shown in italics in Table 6).

The introduction of commercial paper – allowing corporations access to short-term funds independently of banks – took place in November 1987, when one to six-month CP was permitted. One initial peculiarity of the market was that CP bore an interest rate below that available on large-denomination time deposits and was acquired by those institutional investors not permitted to invest in some other open market financial assets.[20] This distortion created an incentive for corporations to issue CP simply to put the funds raised into their bank deposit accounts, thus increasing both debt and bank deposits (see below).

With the gradual extension of the permitted maturity period, however, this market grew rapidly: by the end of 1990, the volume of Japanese CP outstanding was second only to that of US paper, and well ahead of that of any European market.[21] The depth of this market was such that it was used by the central bank to conduct monetary policy. Nevertheless, the relative reliance on commercial paper remains well below that seen in the United States: at the end of 1990, domestic CP outstanding in Japan amounted to 5.5% of bank credit to domestic non-financial corporations, compared with 18.9% in the United States.[22]

The development of a Treasury bill (TB) market was much delayed. Traditionally, the Japanese Government did not issue short-term securities

[19] Permission to issue CDs was designed to help banks cope with disintermediation, and securities companies were not permitted to handle CDs. Also high minimum lot sizes were imposed. Thus, as Iwata (1986) observed, the "marketability" and "divisibility" of the Japanese CD were at first inferior to that of US or Euro-dollar CDs. Only from June 1985 were securities companies permitted to operate in the secondary market. The gradual relaxation of restrictions on minimum amount, term and issue ceiling is laid out in Table A1 on page 120.

[20] See Usuki (1990), p. 6.

[21] Another factor encouraging the growth of the CP market was the replacement, as part of the fiscal 1990 tax reform, of a graduated stamp duty by a flat ¥5,000 fee. However, Japanese CP issues in the Euro-market remain small (presumably reflecting the ban on the sale of Euro-yen CP to Japanese residents).

[22] Estimate given in Bank for International Settlements (1991b), p. 21. The comparable figures for other countries (Euro-markets excluded) are:

France	3.9	United Kingdom	2.5
Canada	9.7	Spain	4.4
Sweden	8.2	Norway	13.0
Australia	13.1	Netherlands	1.3

For a more detailed discussion of the commercial paper market see Alworth and Borio (1992).

at market rates: instead, so-called Financing bills[23] – largely used for the management of seasonal cash flow ("cash management") – were offered at an interest rate set slightly below the discount rate, with a single maturity of two months. However, the sub-market yield of this instrument meant that few investors ever bought these bills, which were mostly therefore purchased by the Bank of Japan. This practice continues to date.[24]

An important development occurred in February 1986, when the Ministry of Finance issued, by auction, six-month government bonds, initially in minimum lots of ¥100 million. This was followed, in 1989–90, by the issue of three-month paper and a reduction in the minimum trading unit to ¥10 million. The immediate impetus for this step came from the need to facilitate the large-scale refunding of government bonds in 1986 – an "echo" of the heavy government borrowing in 1976, which had mainly taken the form of ten-year bonds.[25] Since then, Treasury bills have accounted for an increasingly significant segment of the open money market, overtaking Gensaki transactions by the end of 1990 (see Table 6).[26] A particularly attractive feature of these instruments was that they were exempt from the Securities Transactions Tax. But one significant fiscal impediment remained until very recently for all except certain tax-exempt official organisations such as foreign central banks and some international financial institutions: interest income earned was subject to a withholding tax. Even so, trading in Treasury bills increased rapidly and a deeper market for government paper emerged. By 1991, transactions in Treasury bills had risen to over one-half of transactions in long-term bonds (see Table 7). The final de facto exemption of all non-residents' earnings from Treasury bills from the withholding tax, with effect from fiscal year 1992, has further strengthened the Treasury bill market. Treasury bill transactions have now virtually supplanted Gensaki

[23] Before 1986 these bills were, perhaps confusingly, called Treasury bills. On the introduction of short-term government bonds, however, these two-month bills were renamed Financing bills, the term Treasury bills henceforth being reserved for short-term government bonds.

[24] Such Financing bills are on occasion sold by the Bank of Japan to the market at the market rate (usually to smooth seasonal fluctuations in bank reserves).

[25] See Takata (1988).

[26] A Gensaki transaction, a short-term repurchase agreement for a long-term government bond, is riskier than a transaction in the short-term government security because the capital value of the underlying asset (long-term bond) varies. However, this risk is typically borne by the securities houses, which in any case have to hold a stock of bonds for eventual sale to clients.

Table 7

Trading in government securities[1]

¥ trillion

	1985	1986	1987	1988	1989	1990	1991
Long-term bonds	1,208	2,020	4,330	2,821	2,471	2,110	1,363
Treasury bills	–	165	469	506	563	632	764
Medium-term bonds[2] . .	53	25	22	20	13	16	12
Total	1,261	2,210	4,821	3,347	3,047	2,758	2,139
Memorandum:							
Gensaki transactions[3] .	84	131	145	108	110	56	40

[1] Over-the-counter sales, including dealings by financial institutions. [2] Including 5-year discount bonds. [3] In long-term government bonds only.

Source: Bank of Japan *Economic Statistics Annual.*

transactions in long-term government bonds – an imperfect substitute for a short-term government security.[27]

One final feature of note is the paucity of medium-term bonds. This reflects the only limited demand of securities houses which need such bonds partly as the counterpart of the medium-term government bond funds sold as a temporary store of liquidity to customers waiting for attractive equity investment opportunities.[28] Moreover, the small scale of issuance of medium-term government bonds has allowed the long-term credit banks to preserve their prime position as recipients of funds for medium-term investment.

To summarise, the 1980s saw enormous growth in the size of, and a major diversification in, short-term money markets in Japan. According to one estimate (shown in Table 8), the market is now the equivalent of over 20% of annual GNP, compared with only 7% early in the decade. It remains – at least on this comparison – rather smaller in relation to GNP than comparable markets in other major countries. Nevertheless, open money markets expanded relative to the purely interbank markets up to 1990 (see the calculation shown in Table 6). However, certain special

[27] Shigehara (1991) argues that the market for short-term government paper is not sufficiently developed for the central bank to be able to rely solely on open-market operations in short-term government paper in the conduct of monetary policy: see Shigehara (1991), p. 11. He also points out that the Securities Transactions Tax discourages short-term transactions in long-term government paper.

[28] The rate available on such funds remains regulated.

Table 8

Size of short-term money markets: international comparisons

Year-end outstanding as a percentage of GNP/GDP

	1982	1985	1988	1989	1990	1991
Japan	7.4	11.4	18.7	22.6	21.3	21.3
United States	33.1	31.3	31.2	31.9	31.9	30.6
United Kingdom	21.8	25.4	31.1	34.0	35.4	29.8*
Germany	15.8	17.3	17.6	19.6	26.0	n.a.
France	0.2	0.7	15.9	20.1	25.8	27.8

* Excluding interest swaps.

Note: Offshore markets (e.g. Japan Offshore Market) are excluded.

Source: Bank of Japan *Comparative Economic and Financial Statistics of Japan and other Major Countries* (1992).

factors diverted funds into interbank markets during 1991. Also, issues of commercial paper declined as the possibilities of financial arbitrage – viz. using the funds raised to invest in higher-yielding instruments, an important motivation for CP issuance – became more circumscribed.

Another important development towards the end of the 1980s was a closer integration of the interbank market with other short-term money markets. Traditionally, market operations by the Bank of Japan had been conducted in bills with a maturity of one to three months, the rate on which was regarded as an indicator of the stance of monetary policy. Because arbitrage between such bills and other short-term instruments with a slightly longer maturity (notably CDs) was imperfect, significant interest rate gaps could at times emerge. One such occasion occurred around the middle of 1988 when strong economic growth began to push up short-term interest rates in open markets before the authorities were ready to countenance an increase in "official" interest rates. The gap between the market-determined rate of interest on CDs and the officially-influenced bill rate widened: both the average differential and the variance of the differential increased, but did not become as large as they had been before 1981 (see Table 2 above). Once the Bank of Japan effectively ceased, in November 1988, to set rates for one to three-month paper – using instead bills of less than one month for open-market operations – the differential vanished.

No discussion of Japanese securities markets would be complete with-

Table 9

The Securities Transactions Tax

As a percentage of trading value

Securities \ Seller	Other than a securities company		Securities company	
	As at April 1988	As at April 1989	As at April 1988	As at April 1989
Shares and stock investment trust certificates	0.55	0.30	0.18	0.12
Straight bonds and bond investment trust certificates	0.03	0.03	0.01	0.01
Convertible and warrant bonds	0.26	0.16	0.09	0.06

Note: In addition, a Bourse Tax is levied on the contract value of futures trading.

Source: Tokyo Stock Exchange *Fact Book*, various issues.

out mentioning taxation arrangements – the Securities Transactions Tax and the continued imposition of a withholding tax on the interest and dividend income of non-residents.[29] Up to 1988, Japan imposed a rather heavy tax on transactions in equities and a significant tax on bond transactions; by contrast, capital gains on portfolio investment virtually escaped taxation.[30] The Tax Reform Act of 1988 modified this, and from 1st April 1989 the tax on transactions was greatly reduced. The pre- and post-reform schedules are set out in Table 9. Two features of this transactions tax are important: first, sales by securities houses are much more lightly taxed[31] (giving them a competitive advantage) and, secondly, the tax on transactions in shares is more than ten times that on transactions in bonds (with the tax on convertible and warrant bond transactions set between these two extremes). Although this tax deters very short-term trading in Japanese paper (especially in the form of repurchase agreements), it does not seem to prevent one to two-month trading.

[29] Except for Treasury bill interest payments, as noted above. Also, stamp duties continue to be imposed on certain financial instruments, notably commercial bills.

[30] As the tax rate on transactions was periodically increased (in 1973, 1978 and 1981), and as the volume of securities trading rose, this tax became a progressively more important source of tax revenue: receipts rose from 0.3% of total tax revenue in 1973 to 4.1% in 1988 (fiscal years). (Ministry of Finance *Financial Statistics of Japan*, various issues.)

[31] Banks' transactions *on their dealing accounts* (as opposed to their own portfolio account) are also more lightly taxed.

An important fiscal policy trend of the 1980s that did much to foster international capital movements in many countries was the progressive elimination of withholding taxes on the dividend and interest income of non-residents. Although piecemeal reform has resulted in exemption for certain agents (e.g. some foreign official institutions) or for certain types of instrument (e.g. Treasury bills, Euro-yen bonds), the withholding tax principle remains intact, applied in general at the rate of 20%. Given the trend to more radical exemption in other major financial centres, the continued imposition of a withholding tax inevitably reduces the attractiveness for foreigners of investing in Japanese assets, and a number of observers have suggested its abolition. However, a recent joint Study Group of the Ministry of Finance and the Bank of Japan failed to establish a consensus for reform, and confined itself to calling for further discussion.[32]

Financial institution segmentation

The Japanese financial system incorporates a separation between banking and securities business similar to that enshrined in a number of Anglo-Saxon countries.[33] Very broadly speaking, banks are not allowed to undertake securities business and securities companies are not allowed to undertake banking business. Although this separation of business was laid down formally in Article 65 of the 1948 Securities and Exchange Law (modelled on the Glass-Steagall Act of the United States), it reflected the pre-war custom of keeping the supposedly riskier aspects of securities business away from banks. This included in particular the underwriting of equity issues and secondary market bond trading. This separation, however, did not fully extend to operations overseas – a feature of considerable importance in understanding certain developments in the last five years or so (see below). Also, banks were not prevented from acquiring bonds or equities for investment purposes, or where there was a trust contract. Moreover, a number of restrictions were not built into the 1948 Law but

[32] "[To further internationalise] short-term money markets ... some members suggested that the current securities transactions tax, stamp duty and withholding tax systems should be reviewed ... [but] ... other members countered that any change in the current taxation system [would not be] appropriate from the standpoint of securing fair and neutral taxation." (Money Market Study Group (1991), p. 47.)

[33] This separation has of course become rather less rigid in recent years in a number of Anglo-Saxon countries.

rather reflected the operation of administrative guidance, which, for example, prevented banks from trading in government bonds until the 1980s.

The second aspect of segmentation is the separation of banking and trust business, which served to allow trust banks to attract longer-term funds (trust certificates) – without having to compete directly with city banks – and to make long-term loans.

A third aspect of segmentation is that banks themselves specialised, and particular types of banks had their "turf" protected by regulations. City and regional banks traditionally granted mainly short-term loans, and could raise funds by attracting short-term deposits (with a maximum maturity of two years). Long-term credit banks, on the other hand, extended long-term loans at fixed interest rates, and raised money mainly by issuing five-year debentures.[34]

In addition, a very large number of more specialised deposit-taking institutions, catering to small enterprises and to agriculture, enjoyed certain tax and other privileges – benefits that helped to counterbalance the disadvantages of their very small size. For instance, Shinkin banks, permitted to lend to small and medium-sized enterprises only within their district, were allowed to pay depositors slightly higher interest rates than ordinary banks were permitted to offer. About 40% of total deposits were placed with these and similar institutions in 1980.

Such regulations and practices served to reduce the riskiness of the banking system (by, for example, discouraging the practice of raising short-term deposits at variable interest rates for long-term investments at fixed interest rates). But they also limited competition among institutions and served to underpin interest rate controls. In some cases, indeed, extensive regulations provided an effective policing mechanism for collusive behaviour – and were thus not unwelcome for those institutions that were so protected.[35]

[34] A second, less important, source of funds that was permitted was one-year discount debentures. Also permitted to issue debentures were the specialised foreign exchange bank (Bank of Tokyo, which issues three-year debentures), the Norinchukin Bank and the Shoko Chukin Bank. Towards the end of 1991, however, long-term credit banks began to issue two-year debentures, presumably thus competing with two-year deposits at city and regional banks.

[35] On this see Tsutsui (1990): "that government regulations have been the sine qua non of [a] banking industry cartel ... does not mean government control was done against the will of the banks ... [on the contrary] cartel-like collusion was their own choice and, in order to make it possible, they desired a strict implementation of the government regulations".

Financial liberalisation, innovation and internationalisation have naturally put this traditional segmentation under considerable pressure. The greater marketability of debt instruments has inevitably undermined the traditional pattern of "indirect" finance through banks. The trend towards securitisation has been global and powerful. Greater competition has made financial institutions readier to supply new instruments – and to do so on terms more and more favourable to the customer. The desire to encourage competition in the provision of financial services has led the regulatory authorities in many countries to allow banks and other financial intermediaries to enter new areas of activity. And as Japanese financial institutions have expanded overseas, they have often ventured into areas that at home were out-of-bounds (e.g. Japanese banks undertaking trust business), putting the Japanese authorities under pressure to relax some of their segmenting barriers.[36]

For some observers, the logical conclusion of such extensions is the adoption of a universal banking system where banks and securities houses are free to provide any financial services. Other observers, however, see prudential risks in such a system. There is no consensus on the "best" arrangement, and the historical antecedents and institutional arrangements that provide the context for reform differ greatly between countries.[37]

In the case of Japan, there have been significant changes at the periphery of financial institutions' "traditional" activities. For instance, in the early 1980s banks were allowed to sell government bonds, to develop government-bond-related accounts and to offer time deposits of up to three years (compared with two years previously). At the same time, the authorities sought to maintain an even-handed treatment of banks and securities companies by extending the range of products that securities companies are allowed to offer, permitting them, for example, to issue short-term investment trusts that resemble bank savings accounts (medium-term government bond funds). Table 10 summarises how restraints on the main types of institution were gradually relaxed.

Yet the underlying features of the traditional segmentation remain in

[36] For instance, foreign banks were eventually allowed to set up trust banking subsidiaries in Japan.

[37] On the question of how different national institutional arrangements for dealing with the information flows from borrower to lender impinge on banking systems, see Bisignano (1991), Corbett (1987) and Frankel (1989).

place – at least in domestic markets. The conflicting interests of the banking and securities industries – given the reluctance of the authorities to impose a solution that is not the product of a painstakingly built consensus – have resulted in a stalemate.[38]

One perspective on this stalemate views the banks and securities companies as being, in essence, caught in a "prisoner's dilemma". Unilateral concessions by either party (i.e. if the banks were to agree to making it easier for Japanese corporations to raise money directly in domestic capital markets, or if the securities companies agreed to allow the banks to conduct securities business) would leave the conceding party worse off. Only simultaneous concessions hold out the possibility of making both better off, and even this gain is uncertain.[39]

At all events, failure to resolve the impasse between banks and securities houses involves widely recognised risks. Maintaining the traditional regulatory framework in the face of the revolution in financial markets could lead to banks ceasing to be effective financial intermediaries and could leave securities houses carrying extensive risk.[40]

The nature of the debate on how to reform the traditional regulatory framework can be illustrated by two reports specially commissioned by the Ministry of Finance. One was by the Financial System Research Council, generally regarded as reflecting the interests of the commercial banks. Arguing that the present segmented system served "to protect the vested interests of existing financial institutions", this report suggested that banks and securities companies be allowed to enter each other's areas by setting up special subsidiaries.[41]

The other report, by the Securities and Exchange Council (representing securities companies' interests), made much of the need to broaden the concept of "securities" and of the trend towards securitisation.[42] This report argued that securities companies should be allowed to deal in securities more broadly defined; that certain barriers to increased securitisation – notably rigidities in the domestic capital market, including the

[38] See Sender (1991).

[39] For further discussion, see Takeda (1991). The main possibility of gain for both arises from the repatriation of bond issuance business.

[40] Yamaguchi (1990).

[41] Financial System Research Council (1991) and *Nikkei Weekly*, 15th June 1991. Usuki (1990) provides a convenient bird's-eye view of how the issue of segregation can be addressed: see in particular Chart 9 (p. 19) of his paper.

[42] Securities and Exchange Council (1991).

Table 10

Japanese financial institutions: new instruments

	City and regional banks	Long-term credit banks	Trust banks	Securities companies
Traditional liabilities	Deposits of up to 2 years' maturity	5-year debentures; 1-year discount debentures	Trusts (generally of 2-5 years) and ordinary deposits	
Date new instrument permitted				
1979 *May*	Certificates of deposit			
1980 *January*				Medium-term government bond fund
1981 *June*	Maturity-designated time deposits (up to 3 years)		"Big" loan trust	
October		"Wide" debentures		New government bond fund
1982 *July*				"Jumbo" investment fund
November				Interest management fund
1983 *April*	Over-the-counter sales of public bonds			
August	Government bond time deposit account			
September				"High Pack" government bond account

Table 10 (continued)

Japanese financial institutions: new instruments

<table>
<tr><th></th><th>City and regional banks</th><th>Long-term credit banks</th><th>Trust banks</th><th>Securities companies</th></tr>
<tr><td>1983 October</td><td>Medium-term government bond time deposit account</td><td></td><td></td><td></td></tr>
<tr><td>1984 June</td><td colspan="3">Public bond dealing</td><td></td></tr>
<tr><td>1985 March</td><td>Money market certificates</td><td></td><td></td><td></td></tr>
<tr><td>June</td><td>Public bond time deposit account</td><td></td><td></td><td>Loans backed by public bonds</td></tr>
<tr><td>August</td><td></td><td></td><td></td><td>"FFF" fund (bond investment trust for institutional investors)</td></tr>
<tr><td>October</td><td>Unregulated time deposits (over ¥ 1 billion)</td><td></td><td></td><td></td></tr>
<tr><td>December</td><td></td><td></td><td>"Hit" money trust</td><td></td></tr>
</table>

Note: McKenzie (1992) contains a useful summary of the main conditions governing the new instruments shown above (see in particular his Table 2.1).

commission bank system (see below, pp. 78–79) – should be removed; and that securities companies should be permitted to engage in the types of trust and banking business needed to handle their securities and related foreign exchange business themselves. Finally, the report felt it inappropriate for "banks themselves to conduct securities business widely".

The eventual financial reform bill, adopted by Parliament in June 1992, modified some of these traditional barriers – but did so only in a cautious and tentative way. The authorities in particular retained a large measure of discretion in the granting of permission to institutions to stray from their "traditional" vocation. Moreover, the difficult economic situation facing most banks and securities companies in the 1990s may have reduced their interest in expanding into each other's traditional areas.[43]

This new legislation is due to come into force next year, and many specific details remain to be revealed. The broad provisions are:

(i) banks and securities houses are to be allowed to enter each other's areas of business through subsidiaries. But banks will be prohibited from stockbroking in their securities subsidiaries save in exceptional circumstances and subject to special permission;

(ii) the concept of a security will be broadened to include commercial paper and securitised housing loans; both banks and securities houses will be allowed to handle the new types of security;

(iii) specialised banks are to be allowed to acquire or merge with banks in a different category. The three long-term credit banks and the foreign exchange bank are to be allowed to merge with city banks.

In any event, it has not proved feasible to maintain the traditional segmentation in Japanese financial institutions' activities overseas. The development of interest rate swaps has, inter alia, enabled Japanese institutions to swap between liabilities of different maturities – e.g. ten-year debt for one-year debt or vice versa. This has inevitably eroded the distinction between city banks (dealing in short-term funds) and long-term credit banks. According to a recent BIS study, "yen/yen" swaps accounted for nearly 30% of the total non-dollar interest rate swaps at the end of 1988, as Japanese city banks used swaps extensively to circumvent regulations limiting their access to direct domestic long-term borrowing.[44]

[43] These financial difficulties also led the Ministry of Finance to include several provisions aimed at ensuring the sound management of financial institutions including a strengthening of the Ministry's power to supervise non-banks, etc.

[44] See Bank for International Settlements (1989c).

The more fundamental barrier between banking and securities business has also been increasingly breached. The "Big Four" securities houses (Daiwa, Nikko, Nomura and Yamaichi) have all acquired banking licences in London, for instance, and the securities subsidiaries of Japanese banks have come to play a significant role in Euro-bond markets.[45] Indeed, maintaining traditional segmentation restrictions at home while acquiescing in the inevitable erosion of segmentation abroad has led to the "export" of Japanese financial activity, a theme taken up more fully below.

Interest rate controls

Under the earlier system, there were extensive interest rate controls and the possibility of imposing ceilings on bank credit (so-called "window guidance"). The Bank of Japan's discount rate was the pivot of the traditional interest rate structure. The regulated interest rate on three-month deposit accounts was typically set 1.5 percentage points below the discount rate, although there was often delay – for political and administrative reasons – in passing changes in the discount rate through to bank interest rates.[46] The "yield curve" on time deposits was constrained to slope upwards, with two-year deposits, for instance, attracting 2.25 percentage points above three-month deposits; the interest rate on two-year loan trusts was set 0.2 points above two-year bank deposits.[47] Because city and regional banks depended essentially on deposits for funds to make short-term loans, the short-term prime rate that determined the rate on their loans was traditionally linked to deposit rates.

The interest rate on bank debentures (the prime source of funds for long-term credit banks) was generally set a little above the coupon rate on newly-issued long-term government bonds, itself greatly dependent on the secondary market yield for such bonds. Accordingly the long-term prime rate – the reference rate for loans extended by the long-term

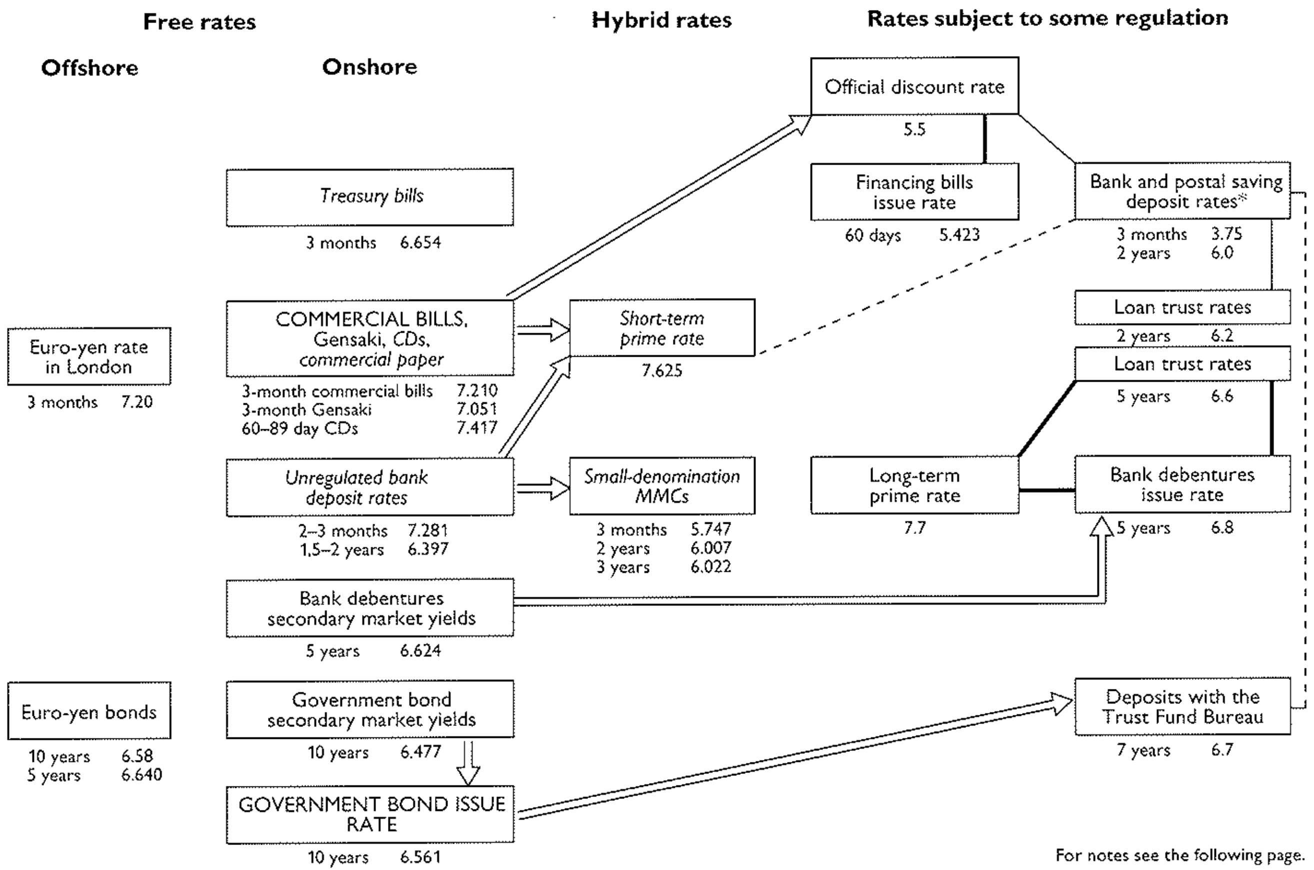
[45] The restriction imposed by the Ministry of Finance (under the so-called Three Bureaux Agreement) that Japanese banks' securities subsidiaries may not *lead manage* Euro-bond issues of Japanese corporations has restrained their growth and allowed the securities houses to assume a pre-eminent position.

[46] The word "typically" deserves some emphasis as the gap between the two interest rates has varied. For instance, it narrowed in late 1986, when the discount rate fell to 2.5%, and in mid-1992, when the discount rate fell to 3.25%.

[47] Chart 7 in Suzuki (1983) provides an illuminating overview of yield curves for regulated interest rates, comparing them with market yields. Graph 6 on p. 43 below is a similar diagram of the interest rate structure in a tight money period. Bank of Japan (1985) contains an analysis of the impact of deregulation and internationalisation on interest rate movements.

Graph 4

The dual structure of Japanese interest rates in August 1991



For notes see the following page.

Rigid margins — Linked rates

Formerly linked rates — New link or arbitrage (arrow indicates new direction of influence)

* From June 1992, regulated time deposits were subsumed under small-denomination MMCs (see the text, p. 42).

Notes: (1) This diagram is an adaptation of Suzuki (1983). (2) Interest rates that were originally regulated but which are now in effect market-determined are shown in capitals. (3) New instruments or markets are shown in italics. (4) Interest rates refer to averages during the month of August 1991.

Sources: Bank for International Settlements, Bank of Japan *Economic Statistics Monthly* and Salomon Brothers *International Market Round-up*.

credit banks – was set 0.9 percentage points above the interest rate on bank debentures.

The reform strategy adopted during the 1980s was to leave this rather elaborate regulated structure in place but to allow "free" instruments to coexist. In particular many of the links between the various regulated rates just outlined were retained. Market duality – free and regulated rates coexisting – was therefore a key feature of Japanese financial markets during this decade. The interest rate structure is conveniently summarised by a modification of a graph first used by Suzuki: see Graph 4.

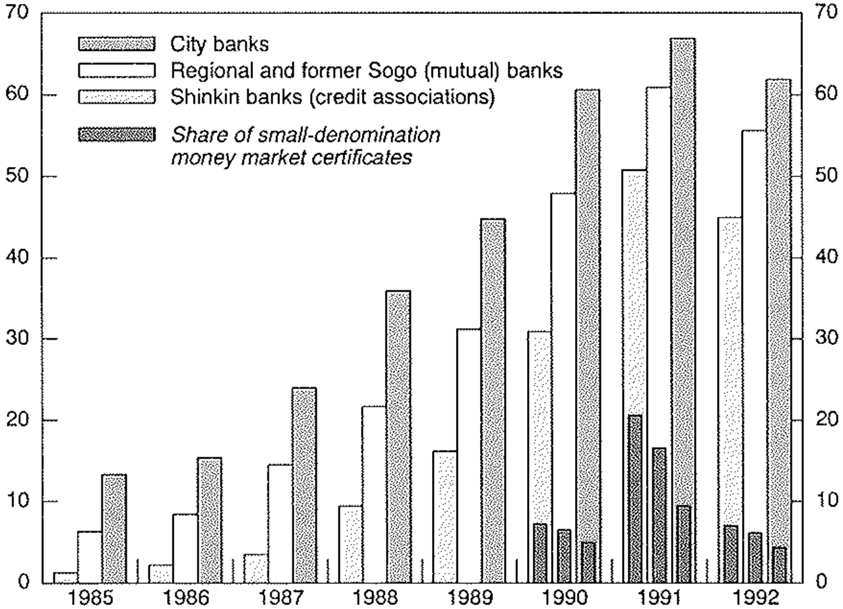
Initially, unregulated instruments were subject to rather high minimum amounts and/or maturity restrictions – measures designed to constrain most households and many enterprises to continue holding bank deposits at regulated rates. At the beginning of 1985, for example, negotiable certificates of deposit were virtually the only bank-issued instrument bearing unregulated interest rates – but the minimum amount for such certificates was ¥300 million, a threshold that was high enough to exclude most small and medium-sized enterprises, not to mention households. Moreover, only three to six-month maturities were available, with both shorter and longer maturities prohibited. The interest rate on large-denomination time deposits was liberalised only in October 1985 – and even then the minimum denomination was ¥1 billion. In the same year, money market certificates (MMCs) were introduced, subject to an interest rate ceiling.[48]

[48] Of 0.75 percentage points below the weekly average of the rates on newly issued CDs: see Table A1.

Graph 5

Dependence on deposits with deregulated interest rates, by type of bank

As a percentage of total deposits (including CDs), at end-March



Note: Deposits with deregulated or unregulated interest rates are time deposits with liberalised interest rates, money market certificates, CDs, foreign-currency and non-resident yen accounts.

Source: Bank of Japan *Economic Statistics Monthly.*

Only gradually were these minimum amounts lowered and maturity restrictions relaxed (for a summary timetable see Table A1 on page 120 in Appendix I below). By early 1989, most of the restrictions on relatively large placements had been removed. However, the impact of liberalisation to this date had been quite uneven across financial institutions, with the bigger institutions (more dependent on large deposits) being affected first. At this intermediate stage in the process of liberalisation, city banks, for instance, were having to raise about one-half of their deposits at market-related interest rates, a dramatic change in the space of only a few years (see Graph 5). At the other end of the spectrum, however, the much smaller credit associations (Shinkin banks) – much more dependent on

Table 11

International comparisons of bank profitability

	1980–84	1985–89	1989	1990	1991	1992[1]
A. Pre-tax profits as % of average total assets[2]						
Japan	0.43	0.54	0.46	0.33	0.31	
United States	0.79	0.72	0.62	0.59	0.42	
Germany	0.64	0.89	0.92	0.83	0.83	
Switzerland	0.65	0.70	0.74	0.53	0.75	
United Kingdom . .	0.96	0.78	–0.03	0.59	0.50	
B. Index of bank share prices relative to the overall index (1985 = 100)						
Japan	65	107[3]	104	97	107	98
United States	91	89	79	56	52	59
Germany	109	99	92	89	90	94
Switzerland	106	91	73	68	66	61
United Kingdom . .	108	98	911	98	99	100

[1] January–August only. [2] 1991 figures are estimated. [3] The rise between 1983 and 1987 is largely due to the breakdown of restrictive arrangements aimed at controlling bank share prices (on which see Frankel and Morgan (1991), p. 7).

Source: Bank for International Settlements (1992) from OECD and IBCA.

small depositors – still raised deposits at sub-market regulated rates. The regional banks were somewhere in the middle.

The gradual decontrol of interest rates – and greater competition in the banking industry more generally – began to squeeze bank profitability only from 1989. According to one estimate (shown in Table 11) banks' average return on total assets fell to only a little above 0.3% in 1990 and 1991, a sharp decline on earlier rates of profitability.[49] Although international comparisons in this area are notoriously difficult, this rate of return appears to be significantly below that earned by banks in other major banking centres.

Because they enjoyed economies of scale, the larger city banks were rather better placed to adjust to deregulation than were the smaller banks: the gradual lowering of the minimum size of deposit bearing an unregulated interest rate – hitting city banks first – therefore gave the smaller institutions something of a breathing space.

[49] For a review of how the environment facing banks has changed under deregulation, see Bank of Japan (1992a).

A second difficulty in liberalising smaller-denomination deposits lay in the somewhat anomalous rate-setting procedures of the postal saving system. This system offered particular advantages for households and took about one-third of the personal sector's deposits. One advantage was that investors enjoyed tax exemption on the interest from one bank account and one Post Office account, which created an incentive to hold a Post Office account. Moreover, checks to prevent people holding more than one tax-exempt account were not particularly rigorous and evasion was endemic. With certain exceptions, however, this tax-exempt deposit system was abolished in April 1988. The second aspect of the attractiveness of Post Office savings was (and still is) that higher interest rates are offered for long-maturity savings (ten years) even though such deposits can be withdrawn with no penalty after only six months – thus combining high yield with high liquidity.[50]

Given this context, and the perceived need to foster gradual adjustment to market-determined interest rates, both banks and the Post Office were allowed to issue (in relatively small denominations) new instruments bearing returns related to, but set below, market-determined rates: in particular small-denomination MMCs were issued. By April 1991, a minimum of ¥0.5 million could be placed in such certificates. They appealed to the small depositors on whom the credit associations depended: by early 1991, about one-fifth of their deposits took the form of small-denomination MMCs.[51] (The black bars in Graph 5 above show the relative dependence on small-denomination MMCs.[52])

However, one particular advantage of a postal savings deposit endured: ten-year accounts continued to give small investors the ability to "lock into" high, fixed interest rates while retaining (after six months) freedom of withdrawal. The basic problem – which applies to all regulated rates – is

[50] The Ministry of Posts and Telecommunications is most influential in setting interest rates on postal savings, and had a political stake in keeping rates paid to depositors high: it was on occasion quite able to delay changes in *all* regulated interest rates. See Osugi (1990), pp. 32–34. Horne (1985) provides a detailed history of the political context of the postal saving system. Imai (1991) suggested that the position of the postal saving system was such that it could become a price leader in setting interest rates after deregulation (pp. 461–462).

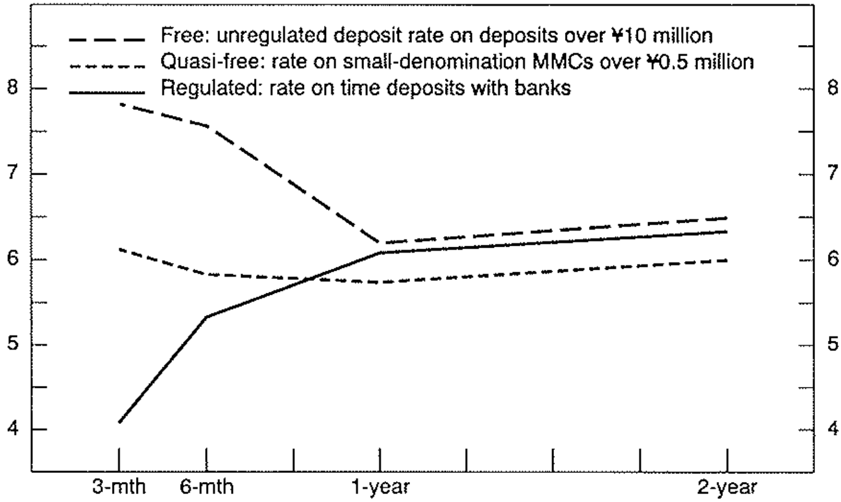
[51] In July 1991 the Ministry of Finance announced its intention to deregulate interest rates on all time deposits within two years and those on ordinary deposits within three years. However, banks will not be permitted to pay interest on checking accounts. The minimum allowed for small MMCs was abolished in June 1992.

[52] As can be seen from Graph 5, the popularity of small-denomination MMCs apparently waned thereafter. The reason for this is explained more fully below (see p. 43 and Graph 6).

Graph 6

The maturity structure of interest rates: free, quasi-free and regulated*

In percentage points



* At April 1991. (Towards the end of a tight money period: inverted yield curve and expectations of a cut in the official discount rate prevalent.)

Source: Bank of Japan *Economic Statistics Monthly.*

that the yield curve applying to regulated rates is designed to slope upwards: longer-term deposits earn a higher return than shorter-term instruments. Under normal conditions, market yield curves also slope upwards, and there is no inconsistency. But in tight money periods the yield curve often becomes inverted: in such circumstances, free rates may be well above regulated rates for shorter maturities, but significantly below them for longer maturities. This occurred in the first half of 1991 and led to a sizable growth in postal savings at the expense of bank deposits.[53] A similar anomaly affected bank deposits. During the period of monetary tightness in the first half of 1991, the yield curve for unregulated large-denomination time deposits became inverted (Graph 6). This had the effect of flattening the yield curve for small-denomination MMCs, which

[53] One estimate is that households moved ¥4 trillion from banks to post offices in the first seven months of 1991 *(Nikkei Weekly,* 9th November 1991).

are linked to market rates. The yield curve on regulated instruments, however, remained upward-sloping. The result was that the regulated yield on two-year bank deposits rose above the equivalent small-denomination MMCs rate, inducing depositors to switch away from the market-oriented to the regulated instrument.

As noted, interest rate liberalisation contributed to a squeeze on bank profit margins. Greater competition for deposits would normally be expected to lead to larger institutions "bidding away" deposits from smaller ones. Such pressures may indeed have led a number of smaller institutions to merge (see the decline in the number of institutions shown in Table 12). Yet the smaller banks' share of deposits remained remarkably constant from 1980 to 1990 despite a decade of substantial liberalisation. The share of the agricultural cooperatives declined from 11.2% in 1980 to 9.7% by 1990 (see Table 12) – but much of this can probably be attributed to the relative decline of the agricultural sector. It is striking, at least on this measure, how little liberalisation had, by 1990, disturbed the structure of the banking sector. Such stability doubtless reflects the authorities' determination that the deregulation of interest rates should not disrupt the domestic banking system.

But how a more radical shake-out of smaller institutions in the 1980s was avoided is not entirely clear. One likely explanation is that banks of all sizes had been able to take advantage of the earlier protective regulatory environment to accumulate reserves, and so withstand – at least in the short term – the pressures of greater competition. Other factors that may have inhibited wholesale restructuring include the need for any take-over of one bank by another to have Ministry of Finance permission. It is also possible that the full force of liberalisation has only recently been felt, and that more far-reaching restructuring is pending. Indeed, the recent deflation of the asset price "bubble" – discussed more fully on pp. 58–65 below – may add to such pressures. One indicator of this is the increased pace of mergers between banks – until recently rather rare in Japan.[54]

One final consequence of the liberalisation of interest rates on bank deposits has been a more flexible determination of bank lending rates. Traditionally the short-term prime rate – which has been linked to the

[54] There were two mergers between city banks in fiscal years 1990 and 1991. Eleven Shinkin banks were involved in mergers over this period. (*Nikkei Weekly,* 19th October 1991 and *Reuters,* 14th January 1992.)

Table 12
Banks and other deposit-taking institutions

	Deposits, etc. (¥ trillion)		Liabilities (as % of total)		Number of institutions reported	
	1980	1990	1980	1990	1980	1990
All banks	**153.0**	**379.2**	**59.9**	**62.9**		
City banks	85.4	209.6	33.5	34.8	13	12
Regional banks	58.8	147.5	23.0	24.5*	63	64
Trust banks	5.3	14.7	2.1	2.4	7	7
Long-term credit banks	3.4	7.4	1.3	1.2	3	3
Other deposit-taking institutions	**102.3**	**223.8**	**40.1**	**37.1**		
Sogo banks	27.4	57.0	10.7	9.5	71	68
Shinkin banks	34.5	82.1	13.5	13.6	461	451
Credit cooperatives	8.7	19.2	3.4	3.2	476	407
Labour credit associations	3.0	7.2	1.1	1.2	47	47
Agricultural and fishery cooperatives	28.7	58.3	11.2	9.7	6,176	5,267
Total	**255.3**	**603.0**				

* Excluding former Sogo banks which, from April 1989, were reclassified as regional banks.
Source: Bank of Japan *Economic Statistics Annual*, various issues.

discount rate – tended to be rather "sticky",[55] not moving as readily as more market-determined rates. From early 1989, however, this mechanism was reformed, in particular by giving greater weight to market interest rates and by changing the prime rate more readily.[56] Nevertheless, major banks have continued to set identical prime rates and have usually made changes almost simultaneously.[57]

[55] This stickiness provided one of the traditional channels of monetary policy influence in Japan. By reducing central bank credit to the banks, the Bank of Japan could bring about a tightening of conditions in the interbank call-money market: higher interest rates in this market, not followed by changes in the short-term prime rate, could encourage banks to divert funds for their customers to the call-money market.

[56] For evidence of the greater flexibility of lending rates in recent years, see Bank of Japan (1991b), especially Chart 5.

[57] Short-term prime rates offered by different banks diverged for a few days after the December 1991 reduction in the discount rate. But by 9th January 1992, all banks had aligned their prime rate with the lowest rate (6.25%). In April 1992, banks returned to the previous pattern and cut their short-term prime rates almost simultaneously. (*Reuters*, 8th April 1992 and *Nikkei Weekly*, 1st February 1992.)

The long-term prime rate continues to be set at 0.9 percentage points above the coupon on five-year bank debentures, although this coupon rate follows market movements in the secondary market for bank debentures. However, traditional long-term bank loans have been increasingly replaced by new long-term (but variable rate) loans, with an interest rate set at the new short-term prime rate plus some risk premium – the so-called new long-term prime rate. In a more competitive environment, then, banks have apparently become more reluctant (and perhaps less able due to thinner profit margins) to bear the interest rate risks inherent in maturity transformation.

In summary, the extent of the deregulation of interest rates stands out clearly in Graph 4 on page 38 above. Although traces of the market duality noted above persist to the present day – and have given rise to some anomalous developments in the last couple of years – the influence of open financial markets is now overwhelming, with market-determined rates strongly affecting those regulated rates that remain (see the direction of the arrows in the graph).

Importance of public sector financial institutions

A fifth characteristic of the financial system was (and remains) the importance of public sector financial institutions. Funds are channelled through the public sector Fiscal Investment Loan Program (FILP) to various priority areas – housing, small businesses, environmental projects, roads, public enterprises and so on. The lending rates of the various government financial institutions were regulated and related to the long-term prime lending rate. The main sources of new funds of the FILP are post office savings and life insurance[58] as well as the surpluses of the state pension schemes: broadly speaking, funds raised from these sources were "re-lent" via the Trust Fund Bureau at a deposit rate that was linked to the rate paid on postal savings deposits (and thus indirectly to the official discount rate).[59]

[58] Strictly speaking, postal life insurance does not go through the Trust Fund Bureau. The percentage distribution of sources of FILP funds is as follows (excluding interest receipts and loan repayments, shown as "Others" in the statistics):

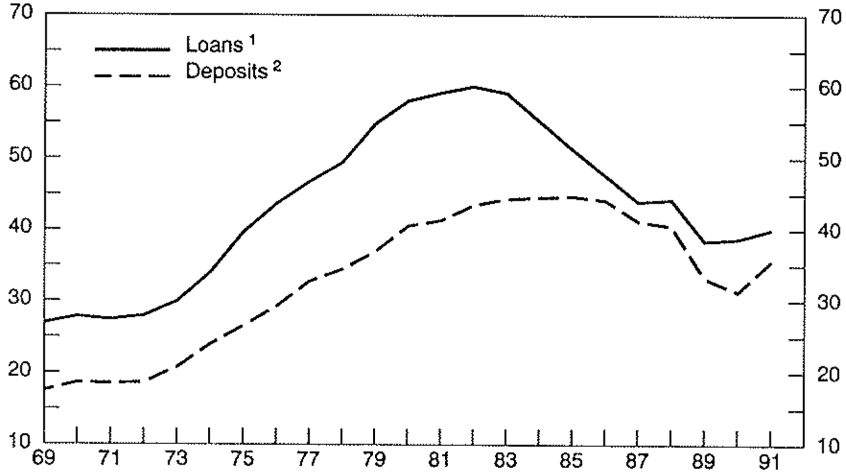
	Fiscal 1980	Fiscal 1990
Postal savings	54.5	34.5
State pension schemes	22.8	26.6
Postal life insurance	11.7	29.0
Government-guaranteed bonds	10.9	9.0

Source: Ministry of Finance *Fiscal Statistics of Japan*, various issues.

Graph 7

Public sector institutions' loans and deposits

Relative to the private sector; in percentages, at year-end



[1] Trust Fund Bureau loans as a percentage of loans of all banks (banking account only).
[2] Outstanding postal savings as a percentage of deposits with all banks (banking account only).
Sources: Bank of Japan *Economic Statistics Annual* and *Economic Statistics Monthly*, various issues.

During the second half of the 1960s and the 1970s two factors came together to produce a quite remarkable expansion in the activity of public sector financial institutions compared with that of private sector institutions – in terms of both loans and deposits. The first was that the state pension schemes built up huge financial surpluses, largely because they were at an "immature" stage where contributions paid rose steeply above current payments. The second was a big expansion of postal savings for the reasons outlined above.

Some idea of just how large the increase in the share of public financial intermediation in total intermediation was is given by Graph 7. Trust Fund Bureau loans rose from the equivalent of about one-quarter of total bank loans at the beginning of the 1970s to well over one-half by the early 1980s. Likewise, postal savings deposits, which had been less than one-fifth

[59] This was changed in March 1987: see below. Note also that the link between the official discount rate and the postal saving rate was not rigid: changes in the two were often not synchronous and the spread between them varied.

of the amount of deposits with banks in 1970, rose to the equivalent of almost one-half of total bank deposits. As the Bank of Japan's review of the financial system noted, such a development raised important questions about the role of public financial institutions, originally intended merely to supplement, not displace, the role of private financial institutions.[60]

A key non-competitive feature of this system was that the postal savings system was relieved of any maturity risk. Because it could deposit its funds with the Trust Fund Bureau at a rate related to the (official discount rate linked) rate paid to its depositors, it faced little pressure to adjust to long-term market interest rates. Government financial institutions, however, re-lent the money to the ultimate borrowers at rates that moved in line with the long-term prime lending rate, linked in turn (via bank debentures floated by the long-term credit banks) to the issuing rate on long-term government bonds. In the mid-1980s the interest rates on government bonds fell below the Trust Fund deposit rate, leading to the absurd situation whereby collecting funds via postal savings had become more expensive than floating government bonds on the market. In such circumstances, the Ministry of Posts and Telecommunications could delay the lowering of official interest rates with impunity.

All this was changed by a major reform in March 1987. The link between the postal saving rate and the Trust Fund deposit rate was broken: the Ministry of Finance, allowed greater discretion in determining the Trust Fund deposit rate, in general adjusted it in line with interest rates on government bonds.[61] The effect of this change was to make the postal savings system bear the costs of offering deposit rates above long-term interest rates in the market. This reform – and the changes that reduced eligibility for tax-exempt savings – contributed to the partial reversal, in the second half of the 1980s, of the trend towards greater public sector intermediation.

Also important was the fact that the maintenance of a very low official discount rate from 1986 held down returns available on postal savings.[62] But once the discount rate rose and the yield curve for market interest rates became inverted (that is, from 1990 – see page 43 above), the

[60] See Suzuki (1987), p. 179.

[61] Once the Trust Fund deposit rate is set, a Committee advises the Minister of Finance on his decision on the lending rate. In practice, the decision is usually simultaneous with changes in the Trust Fund deposit rate.

[62] For movements in the official discount rate, see Graph 12 on p. 60 below.

relative attractiveness of postal savings was partially restored, leading to an increased share for postal savings. All in all, the relative size of public financial intermediation at the beginning of the 1990s was still much greater than it had been during the early 1970s – a somewhat paradoxical position given extensive liberalisation in the private sector.

Bank financing of industry

Under the traditional financial system, the main function of banks was to transfer household savings to a corporate sector that was, until the early 1970s, a heavy borrower. Indeed, relationships between the corporate client and its "main bank" were particularly tight, with banks closely monitoring "their" corporations.[63] The banks clearly played a key role in financing Japan's post-war industrialisation: as recently as 1970, manufacturing industry accounted for almost 45% of total lending (see Table 13). A further 30% went to the distribution sector. By stark contrast, less than 5% went to households and less than 4% to real estate.

Table 13

Bank lending outstanding by sector*

Percentage shares, at year-end

	1970	1980	1985	1988	1989	1990	1991
Household	4.2	11.3	9.2	12.6	15.2	16.2	16.8
Other	95.8	89.7	90.8	87.4	84.8	83.8	83.2
of which:							
Manufacturing	*44.6*	*32.0*	*20.2*	*18.7*	*16.7*	*15.7*	*15.6*
Wholesale and retail trade	*28.8*	*25.6*	*17.1*	*18.5*	*17.8*	*17.4*	*16.7*
Real estate	*3.8*	*5.6*	*6.0*	*10.9*	*11.5*	*11.3*	*11.6*
Services	*4.5*	*6.9*	*8.2*	*13.9*	*14.4*	*15.4*	*15.6*

* Outstanding loans and discounts of the banking accounts of all banks.

Source: Bank of Japan *Economic Statistics Annual*, various issues.

[63] The fact that commercial banks hold about 20% of outstanding corporate equity in Japan is one indicator of this: see the comparison with the United States (where commercial banks hold virtually no corporate equity) in Prowse (1990) and (1992). Cargill and Royama (1988) also have an illuminating discussion of the traditional bank-enterprise links (see pp. 45–48). Bank of Japan (1992c) and Sheard (1992) discuss how this traditional relationship has weakened in recent years. For a discussion of how Japanese banks have adapted to a new environment, see Feldman (1990) and the comment by Corbett (1990).

Table 14

Supply of and demand for funds in manufacturing

Percentage shares; fiscal years

	1981–85 average	1986	1987	1988	1989	1990
Use of funds:						
Fixed investment	71.6	74.8	61.1	58.1	48.2	80.7
Inventory investment . . .	0.4	−30.8	− 4.0	8.9	8.2	10.5
Financial assets	24.8	44.7	54.2	38.6	40.3	0.5
Sources of funds:						
Savings	73.8	78.6	73.3	69.9	47.9	52.9
Debt finance	1.1	−11.9	−25.8	−29.4	−19.0	11.9
Capital increase	13.3	15.3	31.9	29.5	30.5	7.1
Other equity*	11.7	18.0	20.6	30.1	40.6	28.1
Aggregate supply of/demand for funds (¥ trillion)	6.5	6.7	8.2	10.1	16.3	16.5

* Including convertible and warrant bonds.

Notes: Trade payables and receivables are excluded. 1990 data calculated on a somewhat different basis.

Source: Bank of Japan (1991a) and (1991c).

With the disappearance of the heavy borrowing requirements of manufacturing industry, this pattern has changed considerably: lending to households as well as to the services and real estate sectors increased. By 1990, household loans outstanding exceeded loans to manufacturing for the first time.

Manufacturing corporations came instead to rely heavily on equity finance – at the peak in 1989, some 70% of their funds were provided by equity issues (including equity-related instruments such as convertible and warrant bonds), compared with only 25% in the first half of the decade (see Table 14). Enterprises in manufacturing not only reduced their bank borrowing and other forms of debt finance – the negative figures for debt finance over the years 1986-89 indicate net repayment of debt – but also substantially increased their investment in financial assets. In the first half of the 1980s, over 70% of their funds were used to finance fixed investment; by 1989, this ratio had come down to below 50% and investment in financial assets accounted for over 40% of funds invested.

In early 1990, however, this trend was abruptly reversed as the slump in stock market prices forced corporations to cut back equity finance. As capital spending on new plant and equipment continued to grow strongly, corporations were forced to revert to debt finance; over 80% of total funds raised were used for fixed investment.[64] Little was now left over to invest in financial assets.

Raising equity or issuing other equity-related instruments on the earlier scale depended on a buoyant stock market. Moreover, banks sought to keep their corporate clients by offering unusually favourable rates on certain financial transactions. On occasion, this opened up for corporations seductive possibilities of profitable financial arbitrage. As mentioned above, one such opportunity arose when corporations were able to issue commercial paper at rates below those available on large-denomination bank deposits: by putting the funds raised through CP "in the bank", they could earn a riskless profit. Other possibilities arose when rates on bank loans fell below the returns available on financial markets, encouraging enterprises to borrow and reinvest in financial, as well as real, assets. The greatly intensified financial market activity of non-financial companies – so-called "zai-tech" or financial engineering – made an increasingly important contribution to corporate profits as well as generating earnings for the banks.[65] One indication of this was the sharp decline in non-financial companies' non-operating losses as the gains on financial investments came to significantly offset interest payments. From around ¥3.3 trillion a year in the early 1980s, this loss fell steadily, reaching a low point of ¥1.1 trillion in fiscal 1989.[66]

The ratio of financial assets to liabilities in the manufacturing sector – which hovered around 0.6 at the beginning of the 1980s – rose steadily during the decade, to above 1 by 1988. The "traditional" financial position of industrial companies (viz. net financial liabilities incurred to finance real assets) was thus reversed. In two of the most successful manufacturing sectors (the electrical machinery and automobile sectors), the ratio increased to 1.9.[67] Jokes about the so-called Toyota Bank were not entirely misplaced.

[64] The deficit of the non-financial sector rose to over 10% of GNP in calendar year 1990, higher than in any year since 1974. See the saving/investment balances shown in Graph 2 on p. 14.

[65] Easier finance also stimulated investment in real assets, of course: the saving/investment balance of the corporate sector swung sharply into deficit after 1986: see Graph 2.

[66] This non-operating loss rebounded to ¥2.2 trillion by fiscal year 1991 as corporations were squeezed by losses on securities investments and higher interest payments. (Wako Research Institute.)

[67] *Source:* Bank of Japan (1991a).

Table 15

Composition of the non-financial corporate sector's non-monetary financial assets[1]

Percentage shares

	1970	1975	1980	1985	1988	1989	1990	1991
Fixed-term deposits .	66.1	55.9	54.3	43.2	36.4	34.8	41.4	38.4
Trusts	5.6	5.1	5.3	6.3	9.4	9.9	12.4	13.6
Equities	22.8	34.5	29.8	37.9	46.8	48.4	38.0	39.6
Other securities[2] . . .	5.5	4.5	9.6	12.8	7.4	6.7	8.2	8.4

[1] That is, excluding cash and demand deposits; trade credits are also excluded. [2] Including investment trusts and negotiable CDs.

Sources: Bank of Japan *Flow of Funds Accounts in Japan*, various issues, and *Economic Statistics Monthly*, July issues.

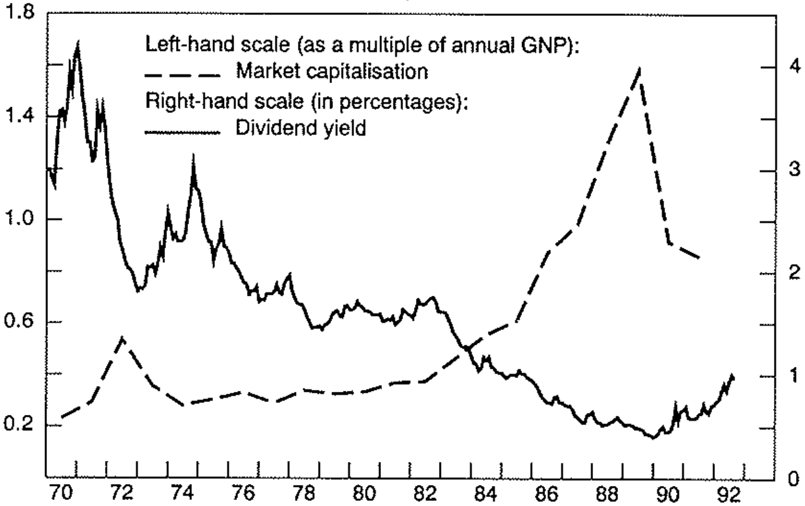
The structure of the non-financial corporate sector's financial assets changed appreciably. The traditional placement of funds in fixed-term bank deposits (often required as part of the bank/customer relationship) has been gradually eroded during the last twenty years (see Table 15). Instead, investment in equities had become steadily more important, and was given a powerful boost by the boom in equity prices in the second half of the 1980s. Graph 8 gives some idea of the scale of this boom even when measured against nominal GNP. By the end of the decade, equity investments accounted for about one-half of corporate financial asset holdings, before declining sharply in 1990 as equity prices dropped.

With the proceeds of equity issues used in part to acquire financial – rather than real – assets, the corporate stock of financial assets rose faster than debt (i.e. not counting own shares outstanding as debt) (see Graph 9). The net financial debt position of the non-financial corporate sector actually improved. But equity outstanding (shown as a liability in the diagram) rose from about 60% of GNP at the end of 1985 to over 185% of GNP by the end of 1989 (see the dark grey shaded area below the line in Graph 9). The value of land holdings also increased, from about 80% of GNP at end-1985 to 145% by the end of the decade.

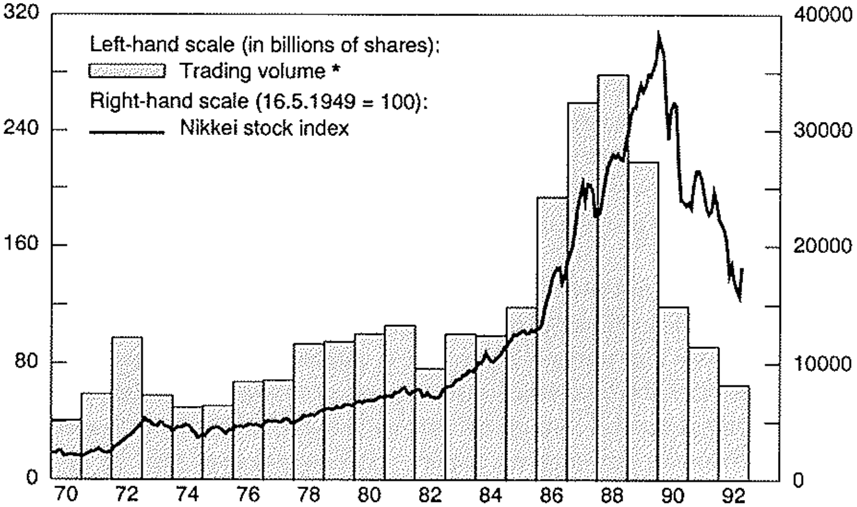
This change in the pattern of corporate finance has had two important consequences. The first was that it increased the sensitivity of the financial position of the non-financial corporate sector to equity price movements. During the boom years there seems little doubt that the accumulation of a large amount of financial assets gave the non-financial corporate sector

Graph 8
The Tokyo stock market

A. Market capitalisation and average dividend yield



B. Annual trading volume and the Nikkei index



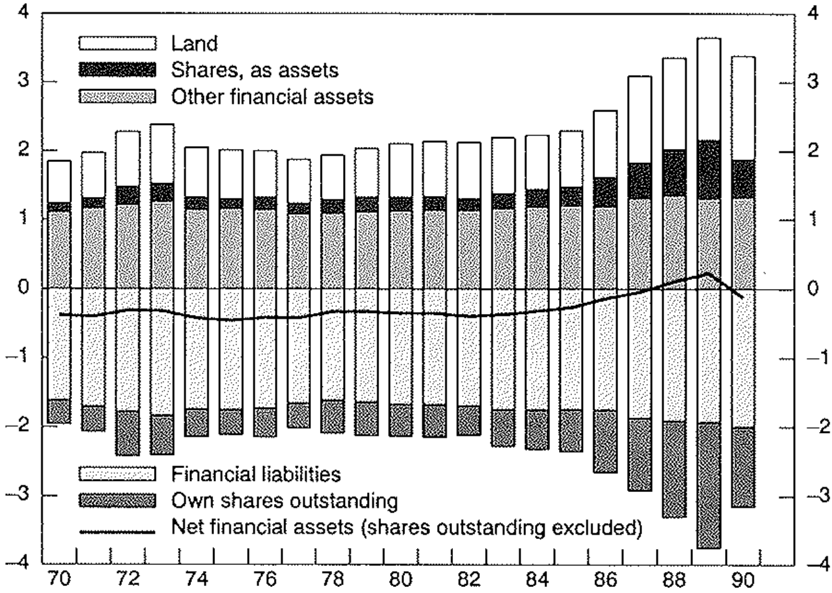
* The 1992 figure is for the first half-year, at an annual rate.

Sources: Tokyo Stock Exchange *Fact Book 1991* and national data.

Graph 9

Balance sheet of the non-financial corporate sector

Assets and liabilities, as multiples of annual GNP



Source: Economic Planning Agency *Annual Report on National Accounts.*

the impression that it had an important "cushion" to soften the impact of adverse developments in its "core" businesses. Such reassurance may well have made it more willing to invest in plant and equipment. All this, however, was to prove rather illusory when stock market prices plunged in the early 1990s.

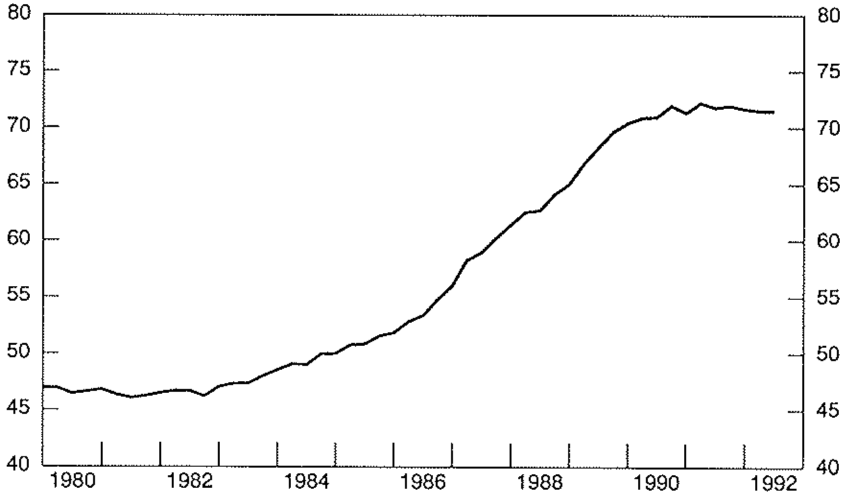
Not only has this decline reduced the value of corporations' assets, but it has also made it more difficult for them to refund the heavy redemptions of convertible and warrant bonds due in the early 1990s – particularly in 1993 and 1994.[68] Unless stock market prospects brighten by the time that such redemptions fall due, it will not be possible simply to roll-over the debt with similar low-interest paper: corporations may then be saddled

[68] According to a November 1991 estimate, ¥24 trillion in convertible and warrant bond redemptions are due in 1992–95. (Sanwa Bank (1992).) See also Bank for International Settlements (1990b).

Graph 10

City banks' loans to small and medium-sized firms

As a percentage of total loans outstanding*



* Banking account only.

Source: Bank of Japan *Economic Statistics Monthly,* various issues.

with more expensive debt financing.[69] According to one recent estimate, issue yields on equity-linked paper reached 4.75% in the first half of 1991 – compared with less than 1% in 1989.[70]

The second consequence was that larger enterprises had less need of bank loans, forcing banks to seek more business with smaller enterprises. The large city banks were the ones most affected by this change, with the share of their loans going to small and medium-sized enterprises rising from less than half in the early 1980s to almost three-quarters by the end of the decade (see Graph 10). Such enterprises – which typically lacked a main bank patron and usually had relatively poor access to favourable credit

[69] The Japanese authorities announced a number of special measures in August 1992 to sustain the equity market and to contain the ramifications of any weakness (see the *Chronology).* The stock market indeed staged a remarkable recovery in the second half of August 1992; this was sustained during September (when this paper went to press). See Graph 8 on p. 53. However, the levels reached in this recovery remain below the levels at which it would be attractive to exercise most warrant or convertible options.

[70] *Source:* Stefan Wagstyl and Robert Thomson, "A crunch on capital", *Financial Times,* 14th August 1991.

Table 16

Private sector indebtedness, 1960–91*

In percentages

	1960	1970	1975	1980	1985	1988	1989	1990	1991
Personal sector	21	38	45	58	68	85	92	96	96
Non-financial corporations .	74	85	94	86	101	123	130	135	134

* Gross financial liabilities excluding trade credits and (for non-financial sector) shares. Personal sector debts are shown as a percentage of disposable income and corporate debt as a percentage of GNP.

Sources: Bank of Japan *Economic Statistics Monthly*, various issues, and Economic Planning Agency *Annual Report on National Accounts*.

Table 17

Personal sector indebtedness*: international comparisons

As a percentage of disposable income

	Japan	United States	Germany	France	United Kingdom	Canada
1985	70	80	88	54	77	72
1990	96	97	84	69	107	90
Change	*26*	*17*	*−4*	*15*	*30*	*18*

* Gross financial liabilities excluding trade credits.

Source: Bank for International Settlements (1992), updated.

terms – therefore became able to borrow more readily and more cheaply.[71] As they were often liquidity-constrained, this provided a major stimulus to investment. At the same time, the city banks were able to charge them rather more than they had large enterprises – an important factor that helped the banks cope with the deregulation of deposit interest rates.[72]

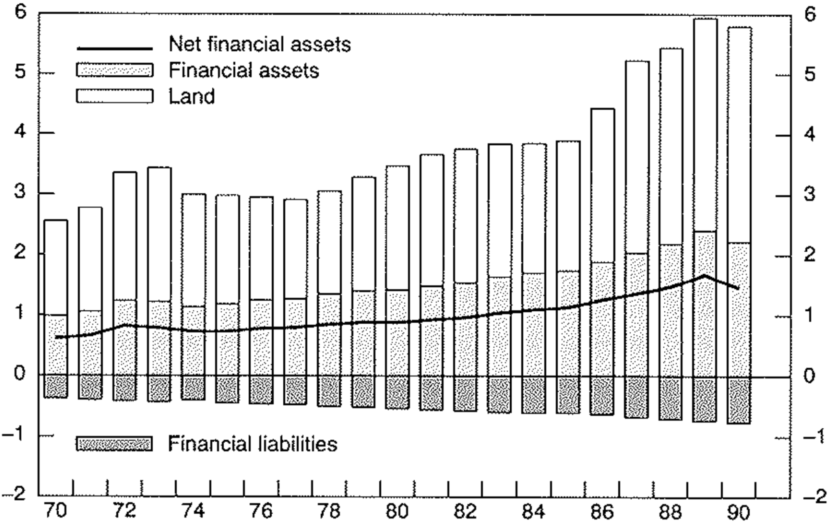
[71] See Frankel (1989).

[72] However, this margin may well have been inadequate to cover the much greater risks involved in lending to small companies. A recent Bank of Japan publication noted that banks "have tried to expand their margins by increasing lending to smaller companies and individuals [and] by raising the ratio of long-term lending .... But ... quantitative expansion without full recognition of risks [and] lax [loan] pricing standards were observed ... during the monetary ease of the late 1980s". (Bank of Japan (1991b), p. 2.)

Graph 11

Balance sheet of the personal sector

As a multiple of annual GNP



Source: Economic Planning Agency *Annual Report on National Accounts.*

The household sector also found it easier to borrow, and incurred much heavier gross debt than in the past; investment in housing increased. Debt rose from 68% of disposable income at the end of 1985 to 96% by the end of 1990 (see Table 16). This increase was much sharper than in most other major countries, with the notable exception of the United Kingdom, and brought indebtedness to US levels (see Table 17).

However, positive real interest rates, strong equity prices and continued high saving ratios[73] meant that households' gross financial assets rose significantly more than did liabilities so that the personal sector's net financial asset position rose to 167% of GNP by the end of the decade, double what it had been at the beginning (see Graph 11). (The equity market decline reduced this to 146% by the end of 1990.) Insurance policies provided a major vehicle for increased financial asset accumulation – a trend that gave considerable impetus to Japan's insurance companies

[73] Note that the saving/investment balance of the household sector remained remarkably constant (see Graph 2 on p. 14).

Table 18

Composition of the personal sector's non-monetary financial assets[1]

Percentage shares

	1970	1975	1980	1985	1988	1989	1990	1991
Fixed-term deposits with								
Post office	12.6	15.7	20.0	19.5	17.4	16.5	16.0	17.2
Other (banks)	41.7	41.5	39.2	34.4	30.3	29.9	33.0	33.1
Trusts and insurance . .	22.2	21.3	21.9	24.8	27.7	28.4	30.9	31.8
Equities	14.4	11.9	8.4	9.4	13.9	15.4	9.9	8.9
Other securities[2]	9.1	9.6	10.4	11.8	10.7	9.8	10.1	9.0

[1] That is, excluding cash and demand deposits; trade credits are also excluded. [2] Including investment trusts.

Sources: Bank of Japan *Flow of Funds Accounts in Japan*, various issues, and *Economic Statistics Monthly*, July issues.

(see Table 18). Still more remarkable was the impact of the land price boom, which increased the value of the personal sector's land holdings from about twice annual GNP in 1980 to more than 3.5 times by 1989.[74] With the value of land rising so steeply, the overall balance-sheet position of the personal sector strengthened enormously, a development that provided much of the stimulus for consumer demand and for housing investment.

Postscript: the "bubble" economy

The nature of the late 1980s boom was, therefore, significantly influenced by the financial liberalisation process. Some overall indication of the importance of liberalisation for the pattern of aggregate demand is given in Graph 12. In panel A of this graph the main national accounts components of final domestic demand are divided into those that are particularly "finance-sensitive" (viz. business investment, house building and consumers' expenditure on durable goods) and those that are not, labelled "finance-insensitive" for convenience. Finance-sensitive expenditure is by nature more volatile, and always tends to rise more strongly during boom

[74] On the land price explosion, see Ueda (1989): the startling statistic is that, by the end of the 1980s, land was worth five times Japanese GNP; the corresponding figure for the United States was 0.7, so that the land value of Japan became greater than that of the United States.

periods. Yet the size and persistence of the differential between the two during the late 1980s does appear to be somewhat out of the ordinary.[75] By and large this boom was sustained by low and/or declining interest rates and a large, sustained increase in broad money (see panel B of Graph 12). To a major extent, of course, this stance reflected the fact that monetary policy in 1987–88 was geared to holding the yen/dollar exchange rate broadly stable in pursuit of international understandings from the Louvre Accord onwards.[76] A particular worry that weighed heavily with domestic policy-makers was that continued rapid appreciation of the yen would be severely deflationary for the Japanese economy. As it turned out, the deflationary effect of the strong yen was overestimated.[77]

The impact of the wider access to finance was itself magnified by substantial increases in asset prices – which in turn derived in large part from easier credit conditions. This process of "cumulative causation" was perhaps most evident with equity prices: as non-financial corporations borrowed funds to purchase equities they drove up equity prices, which in turn made it easier to borrow more. Rising land prices played a similar role. Banks' latent reserves also benefited from this boom, as did their ability to issue new equity – factors which made it easier for them to expand lending rapidly.[78] This process inevitably clouded contemporary judgements of whether high asset prices were a cause for concern. It could, for instance, be argued that an increase in the prices of assets relative to the general price level was a natural consequence of liberalisation as artificial constraints on borrowing had been removed. But it was impossible to know

[75] And shared by all three components. The average annual growth rates over the period from 1985 to 1990 (in real terms) were 10.9% for machinery and equipment investment, 10.0% for investment in housing and 12.2% for consumer expenditure on durable goods.

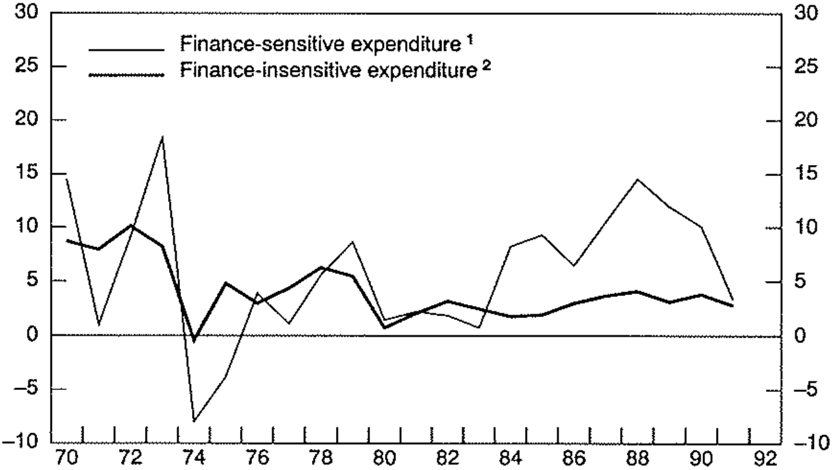
[76] According to one observer, the first-best policy for achieving this would have been international *fiscal* policy coordination (notably lower US budget deficits). In the event, policy-makers settled on international *monetary* cooperation as an imperfect substitute. See Iwata (1990). For an analysis of the factors driving monetary policy see Tschoegl (1990).

[77] On this see Ueda (1991). He argues that monetary policy was too expansionary in the late 1980s. According to him, the initial easing of policy was prompted by widely shared worries about the deflationary effect of the strong yen; once implemented, it proved hard to correct as "political pressures made it difficult for the Bank of Japan to reverse the stance of monetary policy". In assessing this argument, however, the lack of *generalised* inflation during this period (and even later) must be kept in mind as it suggests that monetary policy was not too loose. Also to be borne in mind is the experience of other countries that asset prices during deregulation tend to acquire a life of their own that monetary policy by itself could not counter without being excessively deflationary: Macfarlane (1992) discusses, in an international context, this dilemma as it faced Australian monetary policy.

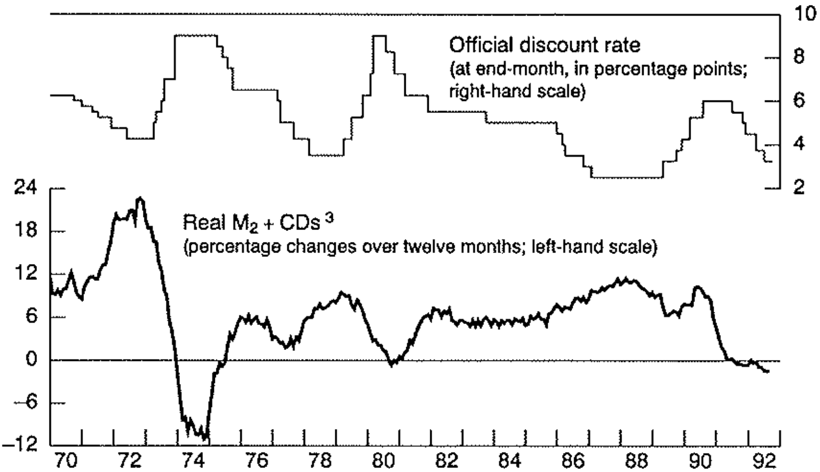
[78] Basle capital adequacy rules, however, did something to limit the ultimate damage done by this by allowing only 45% of unrealised capital gains from equity holdings to be counted as Tier II capital.

Graph 12
Pattern of domestic demand and monetary conditions

A. Finance-sensitive and finance-insensitive expenditure
(percentage changes from previous year; at constant prices)



B. Monetary conditions



[1] Private investment in plant and equipment, housing and consumer durables. [2] Other consumer expenditure and government expenditure. [3] Deflated by the consumer price index.

Sources: Bank of Japan *Economic Statistics Monthly,* Economic Planning Agency *Annual Report on National Accounts* and *Japanese Economic Indicators Quarterly.*

how much the relative price of assets had to change, and how far speculative excesses were involved (bringing with them the costs of eventual adjustment). Some commentators emphasised this second aspect, with the clear implication that it would unwind brutally in the 1990s.[79]

The steep – and ultimately unsustainable – rise in equity prices towards the end of the 1980s in particular sharply reduced the cost of equity finance for Japanese enterprises.[80] This allowed them both to undertake real investments with returns lower than in other countries and to invest heavily in financial assets.

The intensity of the real estate boom-and-bust cycle in Japan was fuelled by a very sharp increase in real estate related lending – indeed, much sharper than in other major countries.[81] Much of this credit – particularly the more speculative parts which could not satisfy banks' lending criteria – was extended by specialised finance institutions (consumer credit institutions, leasing companies and so on) that in general fell outside the remit of the usual supervisory authorities.[82] But because regulations virtually denied these institutions access to the open financial markets, they were forced to borrow from banks, thus ultimately increasing banks' real estate exposure.[83]

The progressive tightening of monetary policy at the end of the decade and the inevitable unwinding of the preceding borrowing boom produced a steep drop in the growth of the real money supply, culminating in a decline: bank lending growth weakened appreciably. Although this reflected in part a switch of deposits into postal savings accounts and bank debentures (not

[79] When the crash finally came, the term "bubble" economy passed into popular usage. See, for example, Ohmae (1991), who recently concluded that "toward the end of 1990, the financial and real estate communities of Tokyo whispered the imminent fall of companies symbolic of the 'bubble' economy of the late 1980s".

[80] Recent attempts to measure the cost of capital in Japan – using different approaches – generally suggest that it was much lower than the cost of capital in other industrial countries. Poterba (1991) and Mattione (1992) provide useful reviews of recent studies comparing US and Japanese capital costs.

[81] Bank lending for real estate purposes increased at an annual rate of 19% between 1983 and 1990, before decelerating sharply in 1991. The comparable rate of expansion in the United States and the United Kingdom, the other boom areas, was less than 15% a year. (Bank for International Settlements (1992), p. 117.)

[82] They are generally supervised by the Ministry of International Trade and Industry, and not by the Ministry of Finance or the Bank of Japan. One estimate is that non-banks have made about 45% of the ¥120 trillion of loans outstanding to the property market (see *Far Eastern Economic Review*, 19th March 1992, which also shows the structure of Japanese financial institutions' exposure to real estate).

[83] Also, a number of such institutions were established by banks which largely funded them.

included in M_2 + CDs),[84] as well as expectations of imminent interest rate cuts,[85] the underlying deceleration in liquidity growth was very sharp, as a dramatic unwinding of the excesses of the 1980s boom occurred. Equity prices crashed and land prices fell sharply.

In many areas land prices had, by mid-1992, fallen well below their previous peaks; real estate companies found it difficult to service loans; and collateral values in many cases fell below those of the loans they secured. The *number* of bankruptcies, which rose sharply, was not, however, very different from that seen in previous recessions (see the curve in Graph 13). What was different was the size of the debt left by companies that failed: see the histogram in the graph. This new feature was of course a consequence of the huge expansion in credit that had preceded the collapse.

The banks and other financial institutions that had extended loans against real estate at inflated "bubble" prices faced, in 1991 and 1992, a steep rise in doubtful loans. The exact size of the problem is not known, and a certain amount of controversy surrounds the various estimates.[86] Whatever the true figure, it is clear that bad and doubtful loans are a significant proportion of the average bank's total loans outstanding.[87] Although the value of collateral held by banks would limit their losses in the case of liquidation, banks and other financial institutions nevertheless face a heavy adjustment burden in the years ahead. The scale of the problem is likely to stretch Japan's traditional mechanisms for rescuing problem banks – mainly relying on takeover by larger, healthier banks and with only a small public fund available to compensate depositors – and lead to a search for alternative solutions.[88]

Banks' difficulties have been exacerbated by a sharp decline in unrealised profits on their very large securities holdings. During fiscal year 1991, city and long-term credit banks' latent profits declined by over ¥14 trillion as

[84] A switch that reflects the continued coexistence of regulated with market-related deposit instruments: see above, pp. 42–43.

[85] Because the lending rates fixed by agreement do not immediately reflect interest rate changes, companies have an incentive to defer borrowing if they expect interest rate cuts.

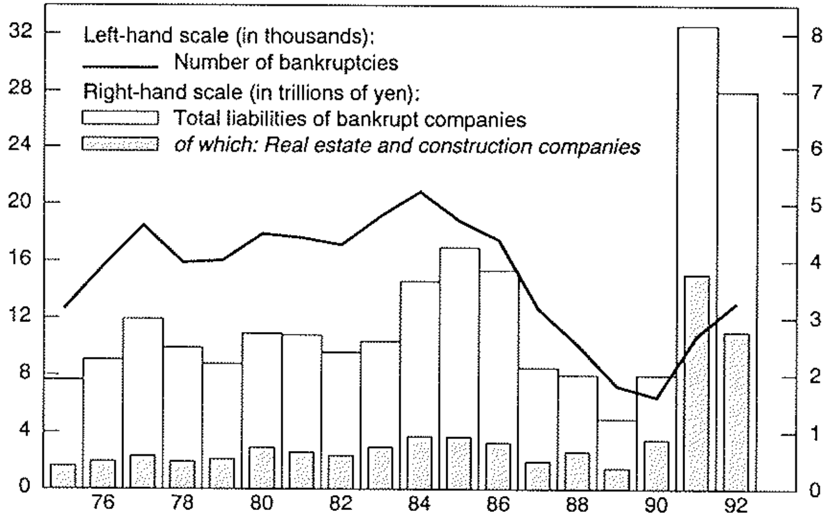
[86] Even the banks themselves may not have a fully accurate measure of the scale of their problem: for instance, off-balance-sheet loan guarantees made by companies to their own subsidiaries may be difficult to assess. (*Financial Times*, 15th July 1992.)

[87] Some recent guesses appear in *Financial Times*, 15th July, *Far Eastern Economic Review*, 11th June and *Euromoney*, July (all 1992).

[88] The decision in October 1991 to extend Deposit Insurance Corporation assistance for the merger involving the Toho Sogo Bank represented the first relief action by the insurance system since its establishment in 1971. (*Nikkei Weekly*, 2nd November 1991.)

Graph 13

Bankruptcies: number and size of debt*



* Companies with liabilities exceeding ¥10 million; 1992 data are for the first half-year, at annual rates.

Source: Tokyo Shoko Research.

the market value of equities dropped steeply.[89] The deterioration in the banks' financial position has led, in the first half of 1992, to a decline in bank share prices even sharper than that in share prices in general (see Table 11 on page 41 above). In some cases declining profits caused a number of non-financial companies to unload onto the market the shares they held of the banks with which they did business (and vice versa). All this has tended to weaken traditionally close bank/corporate customer links.[90]

These pressures have made banks place greater weight on prudence and on profitability, and less on growth.[91] At the time of writing (mid-1992),

[89] Decline in unrealised profits on securities portfolio. (*Nikkei Weekly,* 6th June 1992.)

[90] See, for example, "Japanese banks on the edge" in *Tokyo Business Today* (May 1992), pp. 12–16.

[91] One indication of this shift is the 30% increase in the operating profits of city banks last year. However, such an increase is inevitable in periods of declining interest rates (because rates on deposits fall before the rates on outstanding loans). There is, however, some evidence that less profitable business (notably in the Euro-markets, discussed in the following section) has been radically pruned.

the full ramifications of the adjustment under way in the banking sector are still to be felt. However, it does appear clear that the process of liberalisation, coming as it did at a time of economic expansion and when external considerations were felt to dictate a policy of monetary ease, did make the cycle more pronounced than it would otherwise have been.

The securities companies, which had had an extremely profitable time during the late-1980s boom,[92] were also hard hit by the stock market slump. Their predicament was made worse by the fact that the bursting of the equity market "bubble" in early 1990 brought to light a considerable amount of highly questionable financial practices. These included the compensation of large investors for stock market losses, alleged attempts to manipulate equity prices and the use of window-dressing to disguise losses.[93] These scandals attracted a considerable amount of public attention, and had two important consequences.

One was that they revealed certain weaknesses in the Ministry of Finance's traditional use of "administrative guidance" on financial institutions' behaviour. Such informal guidance had the advantage of flexibility, allowing officials to tolerate practices they judged relatively innocuous, and permitting the private sector to get on with its business without excessive interference.

The practice that attracted most criticism – the retrospective compensation of favoured clients for stock market losses – became the subject of a written Ministry of Finance ban only in December 1989. Even then the practice continued during 1990 with little evident official interference. It was only in the summer of 1991 that action was taken to stamp out continued abuse and impose penalties. This experience prompted explicit legislation prohibiting loss compensation, thus reducing the scope for official discretion in enforcing directives.[94] This was supported by the establishment of a special securities watchdog committee.

The second consequence of the scandals was the damage done to public confidence. This contributed to a sizable decline in the volume of equity market transactions as well as to the slump in prices. Trading volume in 1991 was only about one-third of what it had been in 1988 (see Graph 8,

[92] See below, and particularly Graph 14 on p. 68.

[93] Viz. by selling securities at above-market prices with a guarantee of buy-back at the sales prices plus interest.

[94] The whole episode attracted widespread comment. See the discussions in *Nikkei Weekly*, 6th July 1991, *Financial Times*, 11th August 1991, *Far Eastern Economic Review*, 12th September 1991 and *The Wall Street Journal*, 7th August 1991.

panel B). This dramatic shrinkage of business hit securities companies hard, with the smaller (so-called "second-tier") companies, traditionally more reliant on brokerage commissions, being particularly badly affected.[95]

In time, however, the greater transparency of the rules governing securities companies' behaviour and the existence of a special watchdog committee should do much to restore public confidence at home as well as overseas. For this reason, the experience of the last couple of years should serve to strengthen Japan's securities industry over the longer run.

The pattern of internationalisation

Capital exporter

During the 1980s Japan built up a huge foreign investment position: net external assets rose from only $11.5 billion at the end of 1980 to more than $380 billion by the end of 1991 (see Table 19). A little over $100 billion was acquired in the first half of the 1980s and about $200 billion in the second half. Of greater significance, perhaps, was the very different pattern of accumulation in the two periods.

In the first half of the decade, investment in foreign securities was the main investment vehicle: the net securities position rose by more than $50 billion. Net direct investment assets rose by rather more than $20 billion. In the second half of the decade, however, net direct investment assets rose by more than $150 billion, almost as much as the increase in net securities investment. Moreover, the tendency for the acquisition of long-term assets to be financed by incurring short-term liabilities – already emerging in the early 1980s – was greatly accentuated in the second half of the decade. Short-term net liabilities rose by almost $250 billion between the end of 1985 and the end of 1990, reflecting heavy foreign borrowing by Japanese banks (shown under private monetary assets in Table 19).[96] Hence Japan not only became a major capital exporter, but also performed

[95] Securities companies' pre-tax profits (in billions of yen) were:

	Fiscal 1990	Fiscal 1991
"Big Four"	493.3	20.0
Ten second-tier	69.1	–184.3

Source: Nihon Keizai Shimbun, 16th May 1992.

[96] A significant portion of this borrowing was repaid in 1991 as Japanese banks reduced their participation in the Euro-markets: see pp. 89–90 below.

Table 19

External assets and liabilities of Japan

In billions of US dollars, at year-end

	1980	1985	1990	1991	Changes 1980 to 1990	Changes 1990 to 1991
Long-term net assets . .	40.6	179.0	632.1	600.4	591.5	−31.7
of which:						
Direct investment . . .	*16.3*	*39.2*	*191.6*	*219.5*	*175.3*	*27.9*
Securities	*8.3*	*60.9*	*229.3*	*188.3*	*237.6*	*−41.0*
Short-term net assets . .	−29.1	−49.1	−304.0	−217.4	−274.9	86.6
of which:						
Private monetary assets	*−32.8*	*−61.3*	*−254.4*	*−162.7*	*−221.6*	*91.7*
Official monetary assets	*21.8*	*23.1*	*50.9*	*30.4*	*29.1*	*20.5*
Total net assets	**11.5**	**129.8**	**328.1**	**383.0**	**316.6**	**54.9**
Memorandum:						
Total assets	159.6	437.7	1,857.9	2,006.5	1,698.3	148.6

Note: A negative sign indicates a net liability position.

Sources: Ministry of Finance *Monthly Finance Review,* various issues, and *Japan Statistical Yearbook 1990.*

what some have called an international banking function by borrowing short and lending long.

But some other aspects of Japan's financial internationalisation differ from what has been seen in the past in the case of other major international capital exporters. The United Kingdom, for instance, exported capital on a massive scale during the decades before 1914. Because, in addition, British capital markets were open, efficient and deep – crucial preconditions – foreign borrowers were able to raise substantial amounts in the London market. Indeed much of the capital flow took the form of floating sterling-denominated bonds in London, and such bonds were largely subscribed by British residents. In this way, the United Kingdom provided what has been called the "international public good" of an efficient, low-cost financial and capital market.[97] In return, the country's earnings from financial services exported were substantial.[98]

[97] See Suzuki (1989), especially Chapter IV, for an interesting discussion of this idea. See also Suzuki (1990).

[98] A consideration not without relevence for Japan: see, for instance, McRae's (1985) view about the potential importance of developing an internationally competitive financial services industry.

Table 20

Foreign equity turnover on major exchanges

In billions of pounds sterling and as a percentage of total turnover

	1989		1990		1991		1992 Q1[1]	
	£bn	%	£bn	%	£bn	%	£bn	%
Tokyo	12.1	*0.8*	7.3	*1.0*	2.2	*0.5*	0.3	*0.4*
German exchanges	11.1	*4.9*	6.7	*2.3*	4.6	*2.1*	1.3	*1.9*
Paris	2.9	*4.1*	2.5	*3.7*	2.2	*3.6*	0.5	*2.7*
London	84.6	*30.0*	147.8	*48.5*	137.8	*43.3*	39.5	*44.5*
United States								
NYSE	n.a.		n.a.		50.3	*5.8*	17.2	*6.7*
NASDAQ[2]	14.2	*5.7*	15.9	*6.5*	15.8	*4.0*	5.0	*3.3*
Memorandum:	Turnover of foreign equities in London by nationality of equity (as % of turnover of domestic equities on the "home" exchange)							
United States	n.a.		0.7		0.7		0.7	
Japan	n.a.		4.5		6.6		8.3	
Germany	n.a.		12.2		10.7		9.7	
Other Europe[3]	n.a.		32.4		40.0		38.5	

[1] At actual rate. [2] Over-the-counter quotations of the National Association of Securities Dealers. [3] Unweighted average of France, Italy, the Netherlands, Spain, Sweden and Switzerland.

Source: Worthington (1991), updated.

Foreign fund-raising in Japan

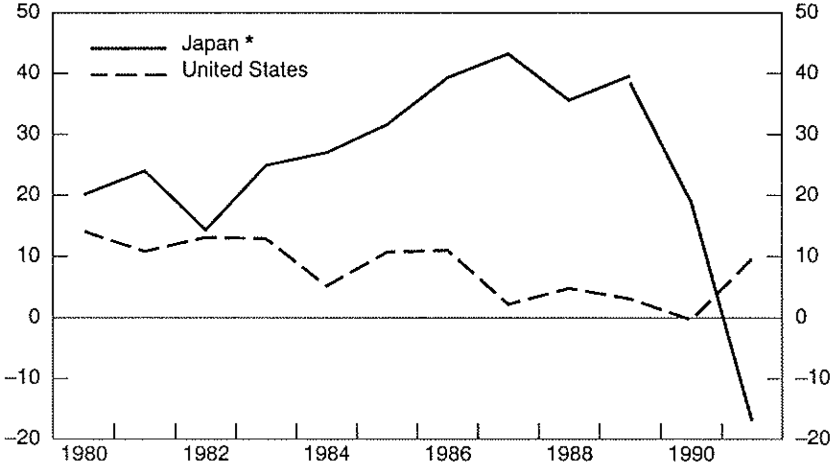
The Japanese case has been quite different. It is indeed remarkable how little non-residents have directly used Japanese financial markets to tap surplus domestic savings. Consider, first, foreign equity issues on the Tokyo Stock Exchange. Until mid-1990 – when the sharp fall in equity prices depressed trading – the Tokyo market had the largest turnover in the world. This might be expected to suggest a deep market that would be conducive to the extensive trading of foreign equities (and, eventually, the floating of foreign equities). Yet the trading of such equities in Tokyo has remained very limited – less than 1% of total turnover, a much smaller proportion than on the German exchanges or in Paris (see Table 20). By contrast, Japanese shares are heavily traded in London, accounting for about one-quarter of London's foreign equity turnover in 1990.[99]

[99] Worthington (1991), p. 247.

Graph 14

Profitability in the securities industry: Japan and the United States

Net profit as a percentage of total revenue



* Discontinuity in 1989 due to change in definition of securities houses' fiscal year.

Sources: For the United States, Securities Industry Association; for Japan, Ministry of Finance with the 1991 figure based on securities houses' income statements.

One factor that may have delayed the emergence of the Tokyo Stock Exchange as a major international market is the continued existence of fixed commissions. It was of course the abolition of fixed commissions that made London and New York highly competitive centres – with the attendant shake-out of the less efficient (usually smaller) securities houses. Commissions in Tokyo are set out in a non-negotiable schedule determined by the Tokyo Stock Exchange and approved by the Ministry of Finance: although provision is made for substantial discounts (up to a certain ceiling) for large transactions, institutional investors are presumably made to pay more than they would in the absence of regulation.[100] Not only did this open the way to various forms of covert, and sometimes illicit, compensation to major clients, but it also – at least for a time – protected securities houses' profit margins, allowing, in particular, the continued survival of

[100] Commission rates on equities and similar instruments range from 1.15% for transactions of less than ¥1 million to 0.075% plus ¥785,000 for transactions of over ¥1 billion. (Tokyo Stock Exchange *Fact Book 92*, p. 70). See also Viner (1987), pp. 60–61, for further discussion.

Table 21

Non-resident fund-raising in the Japanese bond market

¥ trillion

	1980	1985	1988	1989	1990	1991
Amount issued						
Yen-denominated ("Samurai") . . .	0.3	1.1	0.6	1.1	1.2	0.7
Foreign currency denominated ("Shogun")	–	0.2	0.0	0.0	0.1	0.1
Amount outstanding						
Yen-denominated ("Samurai") . . .	1.8	5.2	4.8	5.0	5.8	6.2
Memorandum:						
Euro-yen bonds outstanding	0.2	1.9	10.4	12.5	15.6	18.1

Note: Private placements are excluded.

Sources: Bank of Japan (1984), Bank for International Settlements *International Banking and Financial Market Developments* and Tokyo Stock Exchange *Fact Book*.

many smaller firms. Japan's securities industry therefore enjoyed a profitable decade in the 1980s while intense competition squeezed profits in the major Anglo-Saxon markets (see Graph 14).[101] The intensity of the boom in Japan's equity markets obviously also helped.

Secondly, other forms of fund-raising in the Tokyo market have also remained rather limited. Issues of yen-denominated bonds by non-residents have been mostly confined to favoured international organisations such as the Asian Development Bank and, especially, the World Bank (see Table 21). Other borrowers have generally preferred the Euro-yen market, which has remained the larger of the two.[102]

The total deposits and CDs of foreign banks expanded by only 33% over the decade from 1980 to 1990; the comparable expansion for Japanese banks abroad was over 400% (see Table 22). Both foreign and Japanese banks registered a significant decline in 1991.

The main conclusion, then, is that despite the surplus savings of the Japanese economy foreign borrowers have raised relatively little in the domestic financial markets in Japan.

[101] Once the stock market "bubble" burst, however, the securities companies were faced with a major crisis, with many incurring substantial losses: see pp. 64–65 above. The parlous state of the securities industry, and of smaller firms in particular, has meant that the planned liberalisation of fixed commissions will have to be phased in over a rather longer period than initially envisaged. (*Financial Times*, 29th January 1992.)

[102] See Osugi (1990) for an explanation of the factors behind this preference. See also pp. 77–79 below.

Table 22
International banking business
¥ trillion, at year-end

	1980	1985	1988	1989	1990	1991	*Memo:* % change 1980–90	1990–91
Japanese banks abroad								
Number of offices	*139*	*189*	*250*	*272*	*304*	*327*	*119*	*8*
Assets								
Cash and deposits with others	14.3	49.8	52.3	64.8	68.2	53.1	376	−22
Loans	10.9	28.2	40.7	58.4	75.1	73.5	589	− 2
Liabilities								
Deposits and CDs	26.9	89.3	104.5	129.9	140.6	122.5	423	−13
Foreign banks in Japan								
Number of offices	*85*	*114*	*119*	*121*	*130*	*137*	*53*	*5*
Assets								
Cash and deposits with others	1.9	2.0	2.9	2.5	1.8	1.3	−4	−28
Loans and discounts	4.7	4.9	6.5	7.0	11.2	10.7	140	− 5
Liabilities								
Deposits and CDs	1.5	2.5	1.6	2.4	2.0	1.7	33	−15

Source: Bank of Japan *Economic Statistics Annual.*

Foreign acquisition of Japanese financial assets

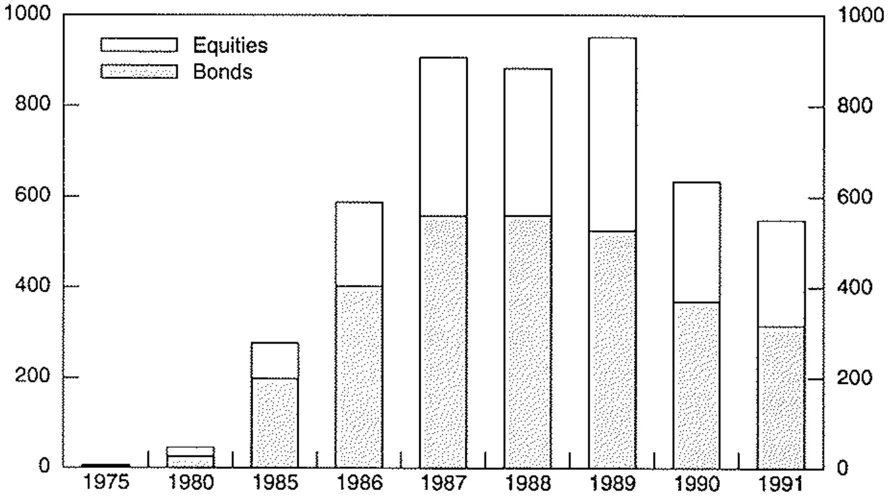
Foreign transactions in Japanese securities rose from around $45 billion annually at the beginning of the decade to over $900 billion by the late 1980s (see Graph 15, panel A). However, foreign activity in Japanese securities does not appear to have increased much more rapidly than that elsewhere. A comparison with foreign transactions in US securities (see Graph 15, panel B) suggests that the bulk of the transformation of Japan's relative position occurred in the late 1970s, when a number of restrictions on foreign investment were removed.

While foreign purchases and sales of Japanese securities have been relatively heavy, net purchases were rather modest until quite recently. Although foreign holdings of Japanese shares almost doubled between 1975 and 1985, foreign interest tended to wane in the late 1980s (Table 23, panel A). One possible explanation is that there was greater foreign than Japanese scepticism about the sustainability of Japanese equity prices

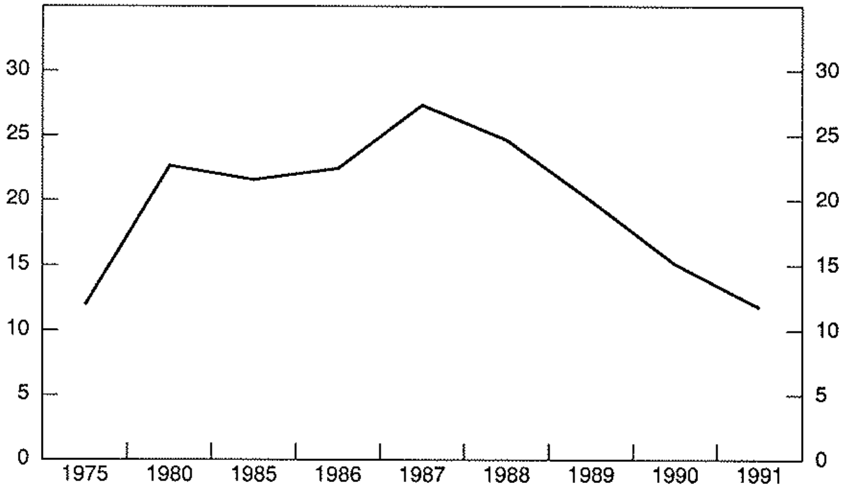
Graph 15

Foreign investors' transactions in Japanese securities

A. Gross transactions, in billions of US dollars



B. As a percentage of foreign transactions in US domestic securities



Note: Excluding Gensaki transactions.

Sources: Ministry of Finance *Securities Bureau Annual* and *International Finance Bureau Annual*, Nikko Research Center Ltd (1988) and US Treasury Department *Treasury Bulletin*.

Table 23

Foreign holdings of securities

A. Foreign holdings as a percentage of Japanese shares outstanding

1975	1980	1985	1988	1989	1990	1991
2.6	4.0	5.7	4.0	3.9	4.2	5.4

B. Foreign holdings as a percentage of government bonds outstanding: international comparisons

	1983	1985	1988	1989	1990	1991
Japan*	10	8	5	7	8	11
United States	13	14	17	20	20	
Canada	16	21	31	37		
France	4	2	6	13	21	
Germany	9	17	39	42	40	42
Italy	3	4	7	6	8	
United Kingdom	8	9	14	13	11	14

* Excluding Trust Fund Bureau holdings.

Sources: Bank of Japan *Economic Statistics Annual*, J.P. Morgan *World Financial Markets* (1989, No. 5), updated, and Nikko Research Center Ltd. (1988).

towards the end of the decade. In 1991, however, foreign holdings of Japanese shares rose appreciably as overseas investors were apparently not affected by the pessimism that haunted domestic investors.

There has also been a revival of foreign interest in Japanese bonds. For instance, non-resident holdings of Japanese government bonds, which in 1988 amounted to only 5% of the total outstanding, rose to 11% of the amount outstanding in 1991. However, this is still a rather lower percentage than for other major countries (see Table 23). The main reason for this is the withholding tax (absent in the United States, Canada, Germany and France); note also the low foreign holdings of Italian bonds, again because of a withholding tax.[103]

Foreign official holdings of yen assets have also tended to increase rather markedly: by the end of 1991 the yen accounted for about 10% of total foreign exchange reserves, compared with 4.4% at the beginning of

[103] Although the United Kingdom also imposes a withholding tax, there are relatively simple exemption procedures for foreign investors.

Table 24

Use of the yen in foreign exchange reserves

A. Percentage shares at end of period

	1975	1980	1985	1988	1989	1990	1991
US dollar*	78.0	68.6	65.0	64.7	60.2	57.6	56.2
Deutsche Mark	6.6	14.9	15.2	15.6	19.0	18.6	17.3
Yen	0.6	4.4	8.0	7.7	7.7	8.9	9.9
Memorandum:							
Yen share in reserves of selected Asian countries . . .		13.9	26.9	26.7	17.5	17.1	

B. Changes at constant exchange rates
In billions of SDRs

	Cumulative						
	End-1975 to end-1980	End-1980 to end-1985	End-1985 to end-1990	1988	1989	1990	1991
US dollar	61.0	−0.5	140.9	4.9	5.4	37.7	14.1
Deutsche Mark . .	23.9	9.5	34.4	14.4	17.1	4.0	−1.4
Yen	5.8	10.1	18.7	2.8	7.7	10.3	4.3
Total identified changes	126.5	24.0	217.5	24.0	32.0	58.5	21.6

* Including ECUs issued against US dollars.

Sources: IMF *Annual Report*, various issues, and Tavlas and Ozeki (1992).

the decade and less than 1% in 1975 (see Table 24, panel A). But this is still a little below at least some official expectations in the mid-1980s.[104]

Much of the diversification into yen took place in the period 1975–85 and again in the period 1989–91. It seems likely that the renewed diversification in the last couple of years owed much to the development of a market for Treasury bills bearing market-determined interest rates, an ideal instrument for central banks.[105] Nevertheless, the yen's share

[104] In 1984 a Vice-Minister in the Ministry of Finance predicted that financial liberalisation in Japan would produce a yen share in foreign exchange reserves of 12% – about the same as the Deutsche Mark at that time (Oba (1984)).

[105] Nicholl and Brady (1992) point out the importance for the New Zealand Reserve Bank of developed sovereign-risk yen instruments and discuss other factors bearing on yen instruments as reserve assets. See also the discussion reported in McKenzie and Stutchbury (1992), pp. 19–20.

Table 25

Euro-currency deposits

A. Currency composition of Euro-currency deposits*

Percentage distribution at year-end

	1980	1985	1988	1989	1990	1991
US dollar	70.7	68.9	61.4	59.6	54.3	52.7
Deutsche Mark	13.4	10.6	12.2	13.8	15.0	14.7
Japanese yen	1.5	3.7	5.3	5.0	5.2	4.8
Pound sterling	2.4	1.7	3.1	3.2	4.0	3.7
Swiss franc	6.0	6.2	5.5	4.6	5.2	4.8
ECU	n.a.	2.7	3.1	3.6	4.4	5.6
Memorandum:						
Total outstanding ($ bn)	1,172	1,903	3,348	3,939	4,639	4,510

* Banks' cross-border liabilities in foreign currencies plus liabilities vis-à-vis residents in foreign currencies. Banks in industrial reporting countries only.

B. External bank deposits by non-bank residents in domestic currency*

In billions of US dollars, at end of year

	1980	1985	1988	1989	1990	1991
United States	63.3	161.0	216.4	232.4	249.3	229.1
Germany	3.3	6.2	34.3	61.5	95.6	111.9
Japan	0.1	0.8	3.8	7.0	9.4	7.7
France	0.5	1.1	1.6	6.2	16.3	15.8
United Kingdom	2.7	3.0	7.1	11.7	17.4	18.3

* External liabilities of reporting banks vis-à-vis non-banks in individual countries.

Source: Table 25A is taken from Tables 4A and 4D and Table 25B from Table 5B of Bank for International Settlements *International Banking and Financial Market Developments* (August 1992 and earlier issues).

remains well below that of the Deutsche Mark, partly a reflection of the greater importance of the Deutsche Mark as an intervention currency in the EMS.[106] It may be noted that the yen share in reserves in Asia tends to be much higher than the average, reflecting extensive trading links and perhaps certain "insurance policy" motives.[107]

By contrast, the yen has not made much headway as a vehicle for Euro-currency deposits, accounting for only about 5% of deposits in the early 1990s (see Table 25, panel A). This is a reflection of more general features such as the limited use of the yen as a currency of denomination of trade and of internationally traded securities. One more specific reason for the difference between the Deutsche Mark and the yen is the existence of a large offshore non-bank deposit base for the German currency, and its relative absence for the Japanese currency. While German residents hold substantial DM-denominated bank deposits abroad, Japanese residents' holdings of yen-denominated (or indeed any) bank deposits overseas are much smaller (see Table 25, panel B). Official restrictions on Japanese residents' right to hold bank deposits abroad have been one factor in this.[108]

All in all there has been a marked increase in foreign holdings of yen-denominated financial assets.

Japanese corporations' use of foreign financial markets

In marked contrast to the scant use of Japanese financial markets by foreign corporations, Japanese corporations have exploited international markets, particularly bond markets, to the full. Indeed, Japanese entities have been the main issuers in recent years, with issues rising from $21.6 billion in 1985 to a peak of $97.5 billion in 1989 (see Table 26).

The bulk of this expansion reflected the enormous increase in Japanese corporations' bond issuance – domestic as well as foreign. From less than ¥7 trillion as recently as 1985, the total corporate bond issuance rose to almost ¥22 trillion in 1989 (see Table 27). In recent years, however, there has been a marked tendency for external flotations to exceed domestic flotations – a rather paradoxical tendency for a savings-rich economy.

In the international markets, Japanese corporations relied heavily on equity warrant bonds that typically carried low interest rates. Such bonds

[106] Black (1990) estimates that the share of the dollar in interventions in the EMS declined from 71.5% during 1979–82 to 26.3% during 1986–87.

[107] Related to expectations of dollar weakness. The currencies of a number of Asian countries tend to follow the dollar. Because their currencies tend to come under pressure when the dollar is weak (and the yen strong), it makes sense to hold yen. In this way the value of their reserves tends to rise at the same time as they face downward pressures on their currency.

[108] Until July 1989 non-bank residents of Japan were not allowed to hold deposits without prior authorisation and special justification. Since then this rule has been relaxed to some extent: see the *Chronology*. By contrast, the Euro-Deutschmark market is made deeper by the fairly high reserve requirements on time deposits in Germany (which can be circumvented if funds are on-lent outside the country) and by German banks' practice of offering higher rates to depositors in the Euro-markets than at home.

Table 26
External bond issues
In billions of US dollars

	1985	1986	1987	1988	1989	1990	1991
Total	**147.2**	**227.1**	**180.8**	**227.1**	**255.7**	**222.9**	**297.1**
of which:							
Japanese issues	21.6	34.4	44.4	51.3	97.5	55.4	70.7
of which:							
Fixed rate	11.4	15.7	13.4	14.2	20.7	20.2	37.6
Floating rate	2.3	1.8	2.2	0.7	0.4	8.0	1.7
Convertible	4.8	2.5	6.8	7.1	11.7	6.5	2.7
Equity warrants	1.1	12.4	21.2	28.5	64.0	20.2	28.6

Source: OECD *Financial Market Trends.*

Table 27
Foreign and domestic bond issues of Japanese corporations
¥ trillion, fiscal years

	Domestic				Foreign				Foreign and domestic total
	Straight bonds	Convertible bonds	Warrant bonds	Total	Straight bonds	Convertible bonds	Warrant bonds	Total	
1980	1.0	–	–	1.0	0.2	0.5	–	0.7	1.7
1985	1.0	1.6	–	2.6	2.4	0.9	1.0	4.2	6.8
1988	1.1	7.0	–	8.1	1.6	1.1	4.9	7.6	15.3
1989	1.1	7.6	0.9	9.7	2.5	1.7	8.3	12.5	21.8
1990	2.9	0.9	0.4	4.2	4.8	0.5	2.7	8.0	11.4
1991	4.1	1.3	0.4	5.8	4.4	0.5	3.6	8.5	14.3

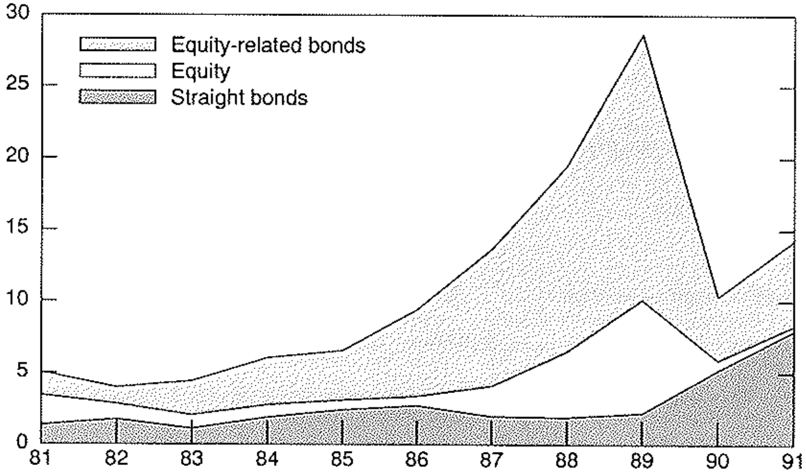
Sources: Nomura Research Institute *Quarterly Economic Review,* various issues, and Bond Underwriters Association of Japan *Bond Review,* various issues.

provided a source of finance that was cheap at least in terms of the interest that had to be paid. For investors, the main attraction of such paper lay in expectations of further rises in the Tokyo equity market. Hence periods of weakness have tended to lead to sharp declines in issues of equity-related bonds. The decline in 1990 was particularly steep, accentuated by

Graph 16

Corporate financing: bonds, equity and equity-related

In trillions of yen; fiscal years



Note: "Equity-related bonds" are convertible bonds and bonds with warrants; "straight bonds" include those which are privately placed. Both domestic and overseas issues are included.

Source: The Bond Underwriters Association of Japan.

official moves to limit equity warrant issues.[109] The declining interest in equity issues in the early 1990s forced corporations to revert to the issue of traditional straight bonds on a scale not seen before (see Graph 16).[110]

Foreign, rather than domestic, issuance is preferred because the procedures for the issue of domestic bonds are more constrained by regulations and by notions of "accepted practice", and are more report-intensive than are those for external bonds.[111] In general terms, four impediments or

[109] An announcement (towards the end of 1989) by the Japanese Ministry of Finance that it might require the registration of all new equity warrant issues and their listing on the Tokyo stock exchange unsettled the market. By February 1990 a registration requirement had been introduced, followed by a suspension of new issues of shares and equity-related bonds by Japanese entities. Although this was lifted by early July, the Gulf crisis led to renewed weakness in equity prices and issuing activity was restrained until the end of the year. See Bank for International Settlements (1990c), pp. 142–143 and (1991a), pp. 138–139.

[110] This may well be an indicator of future trends. Further easing of the regulations on domestic issuance of straight bonds could stimulate the development of a corporate bond market, and offset to some extent the scarcity of bank loans. Note, however, that much of the rise in straight bond issues reflected a surge in private placements (see Niimi (1992)).

[111] See also Takeda (1991).

Table 28

Bond issuance fees: domestic markets and Euro-markets compared

¥ million

	Domestic	Euro-market	Recipient
Trustee fees	53.0	3.4	Banks
Principal and interest payment fees	30.5	3.4	Banks receive the larger share
Underwriting fees	150.0	187.5	Securities houses
	233.5	194.3	
As a percentage of principal . . .	2.335	1.943	

Note: Fees for AA-rated firm issuing ¥10 billion, 7-year unsecured straight bonds with a 5% coupon.

Source: Bond Underwriters Association of Japan, quoted in *Nikkei Weekly,* 3rd August 1991.

constraints have been important. Eligibility guidelines and collateral requirements are two well-known constraints: much of what regulatory relaxation has taken place has concerned the widening of eligibility guidelines for issuing Euro-bonds and the granting of permission for non-collateralised bond issues in the domestic market. By the late 1980s, eligibility requirements for the issue of bonds without collateral no longer imposed the binding constraint: about 300 companies were eligible to issue unsecured straight bonds, and 500 convertible bonds.

The third, rather less well-known, constraint, however, is the "commission bank system". Although banks are not allowed to underwrite bonds, they still retain influence through their role as trustees, specifically as managers of the issuers' collateral on behalf of bondholders – thus effectively acting as insurance agents for domestic bond issuance. In practice, even issuers of bonds requiring no collateral have to engage commission banks. For providing this service banks charge fees that are fixed (by cartel-like convention) and identical for almost all borrowers: such fees are much higher than those charged for guaranteeing external bonds. One example of the relative magnitude of such charges is given in Table 28. Although underwriting fees considered in isolation are lower in Tokyo than in the Euro-markets (amounting to 1.5% of the principal, as against about 1.9% in Euro-markets), the overall cost of issuing in domestic markets is much higher. Moreover, under the "third-day" rule, the proceeds from the issue of domestic bonds become available only after three days, whereas funds from external bonds become available on the day of issue – effectively providing underwriting securities firms and commission banks with a two to three-day interest-free loan in domestic underwriting.

The fourth constraint is that disclosure requirements (of the issuers' general financial condition) tend to be more burdensome for domestic than for external bond issues.

A second important characteristic of Japanese corporations' external bond issuance is that little of it was denominated in yen until very recently. Indeed, before 1984 yen-denominated bond issuance by residents in Euro-markets was simply prohibited – largely because the Japanese authorities feared that the issue of such bonds without collateral in the Euro-markets would undermine the collateral principle in the domestic markets. US pressure to encourage greater international use of the yen contributed to the overturning of this ban in April 1984, with a market beginning to develop only when the withholding tax on non-resident interest earnings on Euro-yen bonds was abolished the following year.

Yet over the five years from 1985 to 1989 yen-denominated bonds accounted for only about $2 billion a year out of total external borrowing of around $47 billion annually (see Table 29). The overwhelming bulk of the borrowing took place in dollars, with another sizable chunk in Swiss francs. The heavy use of dollar borrowing is not in itself unusual: dollar markets are deep, and Germany and the United Kingdom – two other major borrowers – also raised substantial sums through dollar paper. But Japanese borrowers' comparative neglect of paper issued in their own domestic currency is rather unusual: both German and UK issuers relied primarily on issues in their own currencies.

Given that the demand for these issues is predominantly from Japanese investors,[112] the avoidance of the yen as currency of denomination in the late 1980s requires some explanation. One is that much tougher conditions apply for the resale of yen bonds to Japanese residents. For these securities, resale to residents is prohibited for two to three months after

[112] According to Okumura (1990) about 40% of warrant bonds are typically sold to Japanese residents within the first two to three months after issuance (close to the maximum that can, under Ministry of Finance rules, be resold to residents in this period). Following the restricted period – when the limitation on resale to residents lapses – there have been cases where nearly 90% of the issue has been bought by residents (e.g. within six months after issuance).

Table 29

External bond issues by currency of denomination: Japan compared with Germany and the United Kingdom

In billions of US dollars

Nationality of issuer	US dollar	Swiss franc	Japanese yen	Deutsche Mark	Pound sterling
Japan					
1985–89*	34.7	9.0	2.1	1.6	0.3
1990	33.7	9.8	7.3	1.5	0.2
1991	28.3	9.3	23.6	5.1	0.9
Germany					
1985–89*	1.7	0.6	0.2	4.5	0.2
1990	0.5	1.9	0.4	4.3	0.4
1991	2.4	1.5	0.7	4.9	0.9
United Kingdom					
1985–89*	6.5	0.8	0.7	0.4	9.8
1990	1.7	0.5	1.0	0.5	14.9
1991	2.1	0.5	0.2	0.4	16.9

* Annual averages.

Source: OECD *Financial Market Trends*, various issues.

issuance, while for foreign currency bonds half of the bonds issued can be resold within this period.

A second factor may be expectations related to the prospect of an eventual relaxation of the rules that separate banking and securities business. Hopes of liberalisation at some future date have led Japanese banks and securities companies to compete strongly with each other in overseas markets in areas that are out-of-bounds at home. Thus Japanese banks cut to the bone underwriting margins on paper issued by Japanese corporations in the hope of acquiring the expertise they would need when allowed to compete for *domestic* underwriting business. Likewise, Japanese securities houses were particularly keen to promote Euro-dollar bonds because this allowed them to develop their foreign exchange services, which they could not do in Tokyo, where foreign exchange business was the exclusive preserve of the banks. Such competition led, on occasion, to participants being offered marginally better than market rates for foreign exchange deals (e.g. swap or forward deals); this may help to explain the preference for foreign currency funding.

Table 30

Japanese securities houses' positions in Euro-bond league tables

	1977	1981	1985	1987	1988	1989	1990	1991	*Memo:* % share of issues 1990	1991
Daiwa . . .	19	17	12	5	5	2	4	3	4.7	6.7
Nikko . . .				4	9	4	7	8	3.7	4.1
Nomura . .	17	16	8	1	1	1	1	1	9.2	7.8
Yamaichi . .		14	19	6	8	3	11	7	3.1	4.3

Sources: Dufey (1990), Euromoney *Annual Financing Report* (various March supplements) and *Financial Times.*

The opening years of the 1990s, however, saw a marked rise in yen-denominated international bonds. Japanese issuers raised over $30 billion in such bonds in the two years 1990 and 1991, compared with a total of only $10 billion over the previous five years. Lower interest rates than in any other major currency were one important factor. Another was that Japanese corporations, no longer able to use equity-related issues on any scale (see pp. 76–77 above), turned to straight fixed rate bonds.

Heavy Japanese corporate fund-raising in the Euro-market has had the important consequence of making Japanese securities houses major players in the Euro-bond business. As recently as 1985, only one Japanese company (Nomura) was in the "top ten" of Euro-bond underwriters (see Table 30). Since then, this firm has consistently been at the top, with the other three major companies usually in the top ten.

This performance was almost entirely the result of lead managing Japanese issues, where Japanese domination was overwhelming (see Table A4 in Appendix III). Issuers' use of securities houses of their own nationality is natural and is by no means confined to Japan: one factor is that the authorities in a number of countries require that issues in their own currency be lead managed by a *resident* bank. All that can be said is that the concentration in the Japanese case is perhaps a little more marked than with Anglo-Saxon issuers.[113] Again acting primarily for Japanese

[113] Dufey (1990) concludes his review of the penetration of Japanese financial institutions abroad by noting that there is little evidence that Japanese securities houses either in London or in New York have made any significant inroads into serving non-Japanese portfolio managers (with paper other than Japanese securities).

Table 31
International bank assets by nationality of bank
Percentage share of total assets at end of period

	1983	1986	1989[1]	1989[2]	1990	1991
Japan	21.1	32.4	38.0	36.5	33.9	31.4
United States	28.0	17.3	14.1	13.5	11.4	10.6
France	8.8	8.4	8.4	8.0	8.8	9.5
Germany	6.7	7.8	8.4	8.1	9.7	10.4
United Kingdom	8.3	6.1	4.8	4.6	4.4	4.6
Memorandum:						
Total assets ($ bn)	2,166	3,460	5,172	5,387	6,252	6,163

[1] Old series. [2] New series.

Note: The gradual widening of statistical coverage means that the figures shown above are not strictly comparable; with the exception of end-1989, however, the changes were small.

Source: Bank for International Settlements *International Banking and Financial Market Developments* (August 1992 and earlier issues).

institutions, Japanese securities houses have become major dealers in the US Treasury bond market, with Daiwa and Nomura obtaining primary dealerships in New York in December 1986.

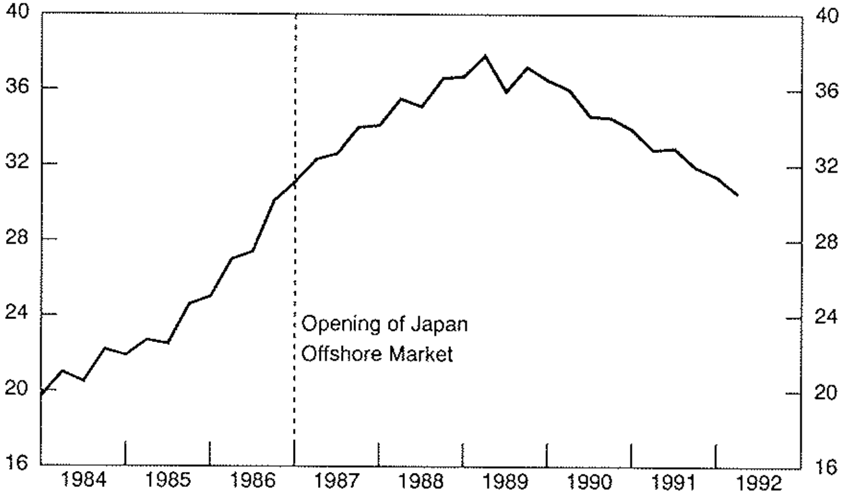
Japanese banks and the Euro-markets

Japanese banks have played an important role in the Euro-markets during the last decade. Two broad phases can be distinguished. The first, and expansionist, phase lasted from the early 1980s to the beginning of 1989, during which period their share of international bank business rose sharply, putting them in a dominating position. The second, and contractionary, phase began in early 1990, gathering force in 1991 and early 1992 as Japanese banks reduced liabilities on a large scale.

From end-1983 (when fairly complete statistics were first available) to end-1990 the dollar value of international bank assets captured by BIS statistics rose by a factor of about three (see Table 31).[114] Japanese banks played a big part in this expansion, with their share rising from about one-fifth at the end of 1983 to almost two-fifths by early 1989 (see Graph 17). From late 1989 to the first quarter of 1992, however, their

[114] International bank assets are defined as the sum of banks' cross-border claims plus their claims in foreign currency on local residents.

Graph 17
Japanese banks' share of international bank assets
As a percentage, at end-quarter



Note: Percentages have been adjusted for main breaks in series.
Source: Bank for International Settlements.

share fell almost continuously: by early 1992 it was back to where it had been at the end of 1986. Nevertheless, Japanese banks have remained important – and have left US banks, in particular, far behind.[115]

The sharp increase in Japanese banks' share of international business up to the end of 1989 was made possible by a willingness to accept lower margins than competitor banks. One explanation may be that market share mattered more to them than profitability – perhaps because of a perception that building up market share would be an effective way of preserving long-term profits. Another explanation recently advanced is that in the 1980s Japanese banks enjoyed a much lower cost of capital than other countries' banks because the prices of their equity were such a high multiple of earnings and because the market readily accepted new equity

[115] Indeed, the gap between US and Japanese banks is probably even understated by BIS statistics. While US banks' reporting includes the international business of their branches in certain major non-reporting financial centres, Japanese banks' business in these centres – including, in particular, extensive operations through Hong Kong and Singapore – remains uncovered. See also Bank for International Settlements (1989b).

Table 32

Net capital flows through banks: Japan compared with the United States and Germany

In billions of US dollars, on a balance-of-payments basis

	1986	1987	1988	1989	1990	1991	1992*	Cumulative totals 1986–1989	Cumulative totals 1990–1992*
Japan	58.5	71.8	44.5	8.6	−13.6	−93.5	−65.5	183.4	−172.6
United States	19.8	46.9	13.9	12.1	23.8	−18.4	18.9	92.7	24.3
Germany . .	−27.9	−3.4	−10.5	−30.3	− 0.8	24.5	36.1	−72.1	59.8

* The 1992 figures are for the first half-year.

Note: A minus sign indicates a net capital outflow.

Source: National balance-of-payments data.

issues.[116] (In more recent years, however, sharp declines in bank share prices have made it very difficult to raise fresh equity capital.)

Given Japan's position as a major capital exporter, perhaps the most paradoxical feature of Japanese banks' international role was that they did not directly contribute to reinvesting the country's current account surplus abroad. Indeed gross banking inflows actually exceeded outflows: over the period 1986–89 the cumulative net inflow through banks exceeded $180 billion (see Table 32). This stands in stark contrast to banks in Germany, the other major surplus country, whose net *out*flow was over $70 billion during this period.

One reason for the difference is the greater demand for Deutsche Mark loans in the Euro-market which makes it easier for German banks to lend Deutsche Mark abroad than for Japanese banks to lend yen.[117] A second factor is the greater demand of Japanese residents for foreign currency loans. Because Japanese banks are subject to only an overall limit on foreign exchange exposure regardless of maturity, they are able to assume

[116] As Zimmer and McCauley (1991), who advance this argument, put it, "what appears ... to a banker with demanding shareholders as razor-thin margins designed to win market share may appear to another banker with less exacting shareholders as a fully priced transaction". Aliber (1991) and Price (1991) also stress the importance of the cost of capital in determining the provision of banking services in a competitive market. Iwami (1989) suggests that the profitability of international transactions of Japanese banks was lower than that of domestic transactions.

[117] This is supported by the fact that the bulk of German bank outflows are denominated in domestic currency, quite unlike those of Japan. See Turner (1991), pp. 74–75.

maturity risks.[118] The capital inflows through banks reflected Japanese banks' foreign currency denominated borrowing abroad to cover longer-term foreign currency loans to residents who, in turn, relieved of the exchange rate risk, were more willing to acquire foreign assets, notably bonds.

These capital movements were dramatically reversed as Japanese banks cut back their operations in the Euro-markets in the early 1990s. In particular, a large contraction in their external liabilities showed up as a massive negative capital inflow in the balance of payments, amounting to a cumulative $170 billion over the period from the beginning of 1990 to the end of the first half of 1992 (see Table 32).

An important distinguishing characteristic of Japanese banks' growth during the expansion period was how much of it was built on inter-office (viz. subsidiaries from head office) or interbank borrowing. About one-half of the change in their total international liabilities over the period from end-1983 to end-1990 took the form of liabilities to other banks – compared with an average of about 35% for non-Japanese banks included in the BIS reporting system (see Table 33). Inter-office borrowing accounts for another third of total liabilities, again much higher than the comparable figure for non-Japanese banks. Only 7.5% of funds borrowed came from non-banks – very little compared with the over 30% raised by non-Japanese banks. Japanese banks were, then, using interbank markets extensively – and often doing so with each other: because they were not "deeply-planted" banks, their effective presence abroad remained much less than measures based on shares of gross assets or liabilities would suggest.[119]

The expansion of Japanese banks' international business during the late 1980s was driven by a number of factors. Among the more important of these were continuing restrictions in the domestic interbank market, the

[118] This has allowed Japanese banks greater freedom to borrow short and to lend long internationally. Shinkai (1990) and (1992) offers the benign interpretation that this has confirmed Japan's position as a major international banker. Others have seen risks in it, particularly when short-term interest rates rise unexpectedly. By contrast, German banks are subject to more extensive rules governing their permitted exposure in foreign currency. In Germany, such rules apply across particular maturities (e.g. one-month *and* six-month exposures must be balanced).

[119] A comparison between US and Japanese banks in London, shown in Table A5 on p. 127, illustrates this general point. Japanese banks raised relatively more foreign currency funds abroad than did US banks. Moreover, their reliance on CDs, domestic interbank and overseas funds was much greater. They raised comparatively little by way of deposits – foreign currency or sterling – from UK non-banks. Similar differences characterise the assets side of their balance sheet.

Table 33
International bank liabilities: Japanese and non-Japanese banks compared
In billions of US dollars and percentage shares

	Change in liabilities: end-1983 to end-1990		Change in liabilities: end-1990 to end-March 1992	
	Japanese banks	Non-Japanese banks	Japanese banks	Non-Japanese banks
Total liabilities	1,643.2	2,209.5	−388.1	19.3*
Sources (percentage shares):				
Inter-office	*38.2*	*24.8*	*− 27.0*	
Other banks	*49.7*	*35.2*	*− 62.0*	
Non-banks	*7.5*	*31.8*	*1.5*	
Official monetary institutions	*2.5*	*4.3*	*− 4.0*	
CDs and other securities	*2.1*	*3.9*	*− 8.5*	

* Calculations of percentage components of such a small change not meaningful.

Note: Excluding breaks in series.

Source: Bank for International Settlements *International Banking and Financial Market Developments* (Table 7 in August 1992 and earlier issues).

need to raise funds to cover foreign currency loans to residents and the financing of the overseas affiliates of Japanese corporations.

A significant proportion of interbank transactions was driven by various restrictions in the domestic market. The existence of interest rate controls in the domestic market combined with the progressive deregulation of the financial system (which allowed banks greater freedom to undertake international business) gave rise to profitable arbitrage opportunities between the domestic and international yen markets. In this sense, it was the – somewhat inconsistent – maintenance of controls in one area (interest rates) and their relaxation in another (capital flows) that led what was essentially domestic business to be exported abroad.

Two particular episodes were important. The opening of the Japan Offshore Market (JOM) in December 1986 led banks to book "round-tripping" operations through inter-office accounts to circumvent domestic regulations prohibiting the direct repatriation of funds raised in the JOM.[120] Such operations artificially inflated the growth of Japanese

[120] Osugi (1990) explains the mechanism: see pp. 27–28 and pp. 69–70 of his paper.

Table 34

Net international position of Japanese banks

In billions of US dollars, at end of period

	1983	1988	1989	1990	1991
Total	**42.2**	**51.8**	**42.6**	**64.7**	**107.7**
Inter-office	6.2	− 53.6	− 8.6	27.3	20.0
Other banks	−21.5	−139.1	−220.0	−226.4	−162.5
Non-banks	103.5	359.5	387.8	380.5	333.2
Official monetary institutions	−15.8	− 38.7	− 37.0	− 44.2	− 31.9
CDs and other securities*	−30.2	− 76.3	− 79.6	− 72.5	− 51.1

* Gross liabilities arising out of securities issues.

Note: A negative sign indicates a net liability position.

Source: Bank for International Settlements *International Banking and Financial Market Developments* (Table 7 in August 1992 and earlier issues).

banks' assets and liabilities from late 1986 to late 1987, when much of the expansion took place.

A second episode occurred in 1988, when strong economic growth led to a marked firming of short-term yen interest rates in open markets. Official policy favouring the maintenance of low interest rates, however, kept the call-money and bill rates in the interbank market low, and increasingly out of line with market rates. The domestic interbank market therefore tended to contract, and part of the market spilled over abroad. This gave a further, again artificial, boost to Japanese banks' international assets.[121]

An important motivation that endured for much of the decade was the use of the international interbank market to raise funds for lending to domestic non-banks. By end-1990, Japanese banks' net liability position vis-à-vis other banks and on CDs amounted to almost $300 billion, compared with about $50 billion at the end of 1983 (see Table 34). This financed some $380 billion worth of loans to non-banks.

Most of their non-bank customers were either Japanese residents or overseas affiliates closely connected with Japan.[122] BIS reporting banks'

[121] Changes in the Bank of Japan's operating procedures in late 1988 reduced restraints on interbank rates, which thereafter followed market rates more closely. See Bank for International Settlements (1989a), p. 158, for an account of this.

[122] See Seth and Quijano (1991) and Walton and Trimble (1987).

Table 35

BIS reporting banks' claims on non-banks in Japan

In billions of US dollars

	Changes, excluding exchange rate effects							Stocks	
	1985	1986	1987	1988	1989	1990	1991	end-1983	end-1991
Cross-border claims	0.3	8.5	37.2	24.0	47.5	63.7	44.1	9.7	250.4
Local foreign currency claims	4.6	47.6	56.7	31.6	11.4	8.4	−19.8	45.9	206.1

Sources: Bank for International Settlements *Annual Report*, various issues, and Tables 3B and 5B of *International Banking and Financial Market Developments* (August 1992 and earlier issues).

international claims on non-banks in Japan – to quote a readily available statistic – reached over $430 billion by the end of 1990, up from about $55 billion at end-1983: the bulk of this must have been Japanese banks' claims on non-banks in Japan (see Table 35).

The larger part of this $430 billion – some $227 billion – took the form of foreign currency loans to residents. The scale of such lending is significantly larger than that found in any other country.[123] In particular, total loans were large relative to Japanese residents' purchases of foreign bonds. By borrowing in foreign currencies, non-bank investors were able to hedge against a fall in the dollar: it may be noted that an annual increase in foreign currency borrowing reached a maximum in 1987, when confidence in the dollar was at its weakest.[124]

The expansion of cross-border claims was, by contrast, much greater in 1989 and 1990. One reason why Japanese banks chose, during certain periods of the 1980s, to lend to Japanese firms via the Euro-markets – rather than directly at home – was that quantitative restraints laid down under the "window guidance" policy of the Bank of Japan applied only to yen lending by domestic offices: Euro-yen loans to residents by Japanese banks' foreign offices and foreign currency loans by their home offices

[123] Comparable amounts outstanding at end-1990 for other countries were (in billions of US dollars):

United Kingdom	132.7	Italy	51.8
Belgium	27.2	Sweden	65.3
Canada	27.8		

Amounts for all other countries are below $25 billion.

[124] For further discussion, see Turner (1991), pp. 78–79.

both escaped the guideline. Informal guidelines limiting banks' domestic lending in recent years thus contributed to increased cross-border lending.[125]

Finally, Japanese banks used their foreign offices to finance overseas affiliates of Japanese corporations. One recent study concluded that about two-thirds of the claims of US branches of Japanese banks were on Japanese residents or companies with close links with Japan.[126]

Three factors contributed to bringing the expansion of Japanese banks' international business to a halt by late 1990, and to inducing a marked decline in 1991 and the first quarter of 1992.

First, further liberalisation in the domestic market since 1988 has reduced the incentives for banks to channel funds through offshore offices. Particularly important in this respect was the recent liberalisation of interest rates in the interbank market. The end of "window guidance" – under which the Bank of Japan set guidelines for commercial bank lending growth – may also mean that banks no longer need to have recourse to international lending to mitigate the impact of the guidelines. The sharpest contraction was in their net liability position in the interbank and CD markets, which fell by $85 billion during 1991 (see Table 34 above).

A second factor was the end of the Japanese foreign direct investment boom in the United States, and the slower expansion of Japanese affiliates in the United States. As noted above, much of Japanese banks' lending in the United States is to Japan-related companies: as the activity of the latter expanded greatly in the second half of the 1980s, so did bank lending. In 1990 and 1991, the cross-border claims of the US offices of Japanese banks fell substantially.

A third, and most important, factor has been the greater stress now laid on rates of return, rather than growth – an emphasis reinforced by the need to meet more stringent capital adequacy standards. The weaker equity market since 1990 has tended to intensify the pressure, not only by reducing revaluation reserves[127] (and so increasing banks' need for capital)

[125] "Window guidance" was abolished in 1991.

[126] See Terrell, Dohner and Lowrey (1990), p. 43. See also Dohner and Terrell (1988) and Kusukawa (1991).

[127] Under the Basle capital accord, 45% of unrealised capital gains from equity holdings can be counted as Tier II capital. (See, for example, Kapstein (1991).) According to the Chairman of the Federation of Bankers Associations of Japan, each 1000-point fall in the Nikkei index causes a 0.25 percentage point decline in the capital-assets ratio of the top six Japanese banks. (*Reuters*, 20th August 1991.)

but also by making it more expensive to raise capital.[128] This has caused Japanese banks to look much more closely at the profitability of their business in the intensely competitive Euro-markets.

Although other avenues of response were open to Japanese banks,[129] the contraction in international business that took place in 1991 was very large and appears to have been a major vehicle of adjustment. Banks in Japan repaid almost $390 billion of external liabilities in 1991 and the first quarter of 1992 (see Table 33). The sharp rise in average spreads in the Euro-dollar market last year may be a general sign of international banks' greater emphasis on profitability.[130] Japanese banks in particular have become much more cautious players in the Euro-markets.[131] Given recent sharp declines in banks' latent reserves, the increased cost of raising capital and the problem of bad loans, the greater emphasis on profitability and restoring balance-sheet quality seems likely to mark a rather durable change in behaviour: the hectic pace of Japanese banks' expansion in international markets seen in the second half of the 1980s seems unlikely to recur in the foreseeable future.

Internationalisation: some consequences[132]

It is clear from this review that the internationalisation of Japan's financial institutions and markets has been extensive. The rapid pace of internationalisation recalls theories of reform "sequencing" – that is, the order in which markets should be liberalised. The received wisdom of this literature – mainly viewed from the perspective of developing countries with

[128] See also Frankel and Morgan (1991) for an explanation of the interaction between equity prices and Tier I and Tier II capital (see especially Chart 20). The recent decline in equity prices has caused Tier II capital to fall below the capital accord's 100% ceiling of Tier I capital so that capital increased through retained earnings or equity financing now funds only half as much asset expansion as when there was a "surplus" of Tier II capital.

[129] Other possible responses to more demanding capital adequacy standards include the issue of new forms of core capital (e.g. subordinated debt), increased profit margins, securitisation (for securitisation measures recently allowed banks, see the *Chronology).* For a discussion of banks' responses to capital adequacy issues see Dale (1990). For an appraisal of the impact of the weak equity market and capital adequacy guidelines, see Bank of Japan (1992b): this suggests that the weak demand for funds will limit the growth of risk-weighted assets, that the issuance of additional subordinated debt will help banks raise extra capital and that overseas loans may be less readily offered.

[130] See the evidence on spreads in Bank of England (1992), p. 198.

[131] See, for example, *Le Monde*, 10th March 1992 and Koo (1992).

[132] One topic not treated here – because not directly related to financial markets – is the use of the yen in international trade. Recent developments, summarised in Appendix II, suggest an increased use of the yen in international trade.

"repressed" financial markets – is that domestic liberalisation should precede international liberalisation. The prime reason is that if domestic interest rates are held artificially low by continued controls in the domestic market, international liberalisation will encourage capital outflows and induce a real depreciation of the exchange rate.[133]

Foreign pressure on Japan to liberalise and internationalise financial markets often rested on the presumption that such steps would lead to a stronger yen. The most well-known expression of such pressure – the joint report by Japan and the United States, *Yen/Dollar Exchange Rate Issues* – indeed concluded that "measures to internationalise the yen and liberalise Japan's capital markets ... will lead to a stronger yen". Yet not all the liberalisation measures agreed upon could be expected to strengthen the yen.[134]

Because the liberalisation of residents' capital movements during the 1980s was fairly general, capital outflows were considerably strengthened. In addition, a number of impediments to increased Euro-market activity were removed.[135] At the same time, the liberalisation of the domestic capital market was slower, leaving some significant barriers in place. This tended to discourage foreign capital inflows into Tokyo and retard the internationalisation of the yen. Such "sequencing" of reform would, other things being equal, probably have implied a temporary depressive effect on the yen.[136]

[133] A secondary reason is that financial market activity generated by liberalisation would, under the reverse sequence, be expatriated – depriving the home economy of real income opportunities.

[134] See Frankel (1984) for a cogent criticism of the view that the Yen/Dollar Agreement would strengthen the yen:
"The 1983/84 yen/dollar campaign [by US Treasury officials ... led to] an estimated 7% appreciation of the yen ... Evidently, the markets initially took the statement of Treasury officials at face value. But by November 1984 [i.e. six months after the report was issued], the yen was 6% weaker against the dollar than it was before the campaign began" (Frankel (1984), p. 65).

[135] Iwata (1986) argues that this pattern of liberalisation was encouraged by pressure from the US Government, prompted by a desire to generate international business for US financial institutions.

[136] Of course, the effect of liberalisation on the exchange rate extends well beyond standard "sequencing" considerations. It can, for example, have a major effect on domestic demand, and thus on the current account (as discussed above). For a good general discussion of the broader issues, see McKenzie (1985), pp. 26 ff.

Conclusions

The first part of this paper documented the liberalisation of Japanese domestic financial markets over the past two decades by focusing on six key characteristics of the earlier highly regulated regime. Capital movements were seriously constrained. Securities markets were underdeveloped, and non-banks' access to capital markets in particular was quite limited. The financial industry was segmented, restricting competition among financial institutions. Interest rates were tightly regulated, and in theory this may have hindered the efficient allocation of capital. Public sector finance, which is presumably much less market-oriented than finance through private financial institutions, accounted for (and still does) a large share of domestic credit.

Some attempt was made to explain the pressures for changing a system that had worked so well during Japan's High Growth Era. One important feature was that reform was cumulative – changes in one area typically increased the pressure for change in other areas. The overall result was that a highly regulated financial system was replaced by a much more liberal one. The size and depth of open financial markets in Japan have increased enormously, monetary policy operates largely via interest rates, and the maturity structure of interest rates is now determined primarily by market forces, international as well as domestic.

Unlike the process seen in some other industrial countries (especially Anglo-Saxon ones), however, deregulation has been gradual not sudden, piecemeal rather than radical, and has generally been implemented by changes in administrative guidelines rather than by all-embracing legislation. The choice of such an approach was motivated by, inter alia, a concern to maintain financial stability. In any case, a slow but steady process was probably inevitable given the traditional reliance on step-by-step consensus building within the Japanese system. Moreover, the macroeconomic performance of Japan remained, during the period of reform as a whole, far better than that of countries with more thoroughly liberalised systems. Even this cautious approach, however, did not prevent the financial system from going through a period of marked instability as the feverish boom of the late 1980s ended and as financial institutions faced major difficulties. A policy of more sudden liberalisation might well have accentuated the recent boom-and-bust cycle.

Assessment of reform from an international perspective hinges on two broad groups of considerations. The first relates to Japan's supply of international financial services. Did Japan compete "too strongly" in foreign financial markets in the late 1980s? What will be the implications of the reduction in Japanese banks' activity in the Euro-markets in the early 1990s? Have foreign agents been able to take full advantage of Japan's capital markets? The second group relates to macroeconomic issues: the investment of Japan's saving surplus overseas, progress towards international adjustment and so on.

The international expansion of Japanese financial institutions was one of the more remarkable features of the global financial landscape in the 1980s. One concern of Japan's international competitors in the financial industry was that continued controls gave Japanese institutions excess profits on their domestic business, and thus allowed them to compete in international markets earning little or no return.

This paper has found little or no basis for this concern insofar as banks are concerned. Indeed, the interest rate controls on bank deposits which provided Japanese banks with cheap funding have been largely eliminated. Moreover, international comparisons of bank profitability do not suggest that Japanese banks have been unusually profitable. On the contrary, the statistics rather suggest that, in the pursuit of volume expansion, overall profitability may have been sacrificed.

The second part of the paper showed how some of this expansion was in any case artificial, driven as it was by the desire to circumvent domestic regulations. There is, however, some evidence that the extraordinary boom in equity markets allowed Japanese banks to raise capital relatively cheaply, and this may have encouraged or facilitated expansion at the expense of profitability. All this has changed with the slump in equity and real estate prices in the early 1990s. The quality of bank assets has deteriorated and the importance of earning adequate profits has been increased sharply.

The position of securities companies is rather less clear. Particularly important has been the maintenance of fixed commissions on securities dealings – although these were often in effect circumvented by apparently illegal side-payments to important clients. This, and perhaps other protective features of the regulatory and administrative guidance system, appears to have prevented the kind of cutthroat competition seen in London and New York: indeed, the evidence is that Japanese securities houses became more profitable in the 1980s. Thereafter, however, the steep decline in the stock market and the slump in the number of transactions put a severe strain on securities companies, acting as a catalyst for further reform.

A second concern has been whether Japan has played its full part in providing what Suzuki has called the "international public good" of an efficient, low-cost financial and capital market open to all. A recurrent theme of the second part of this paper was the peculiar pattern of international capital flows to and from Japan. In spite of large and persistent net savings since the early 1980s, non-residents seldom raised funds in Japan and residents often preferred to tap foreign rather than home capital markets. Several regulatory and institutional reasons were identified for this puzzle, such as fixed equity trading commissions, rigidities in domestic bond markets and the relative scarcity of attractive domestic instruments for foreigners to invest in.

The difficulties of mediating conflicts among the powerful vested interests in Japan's financial establishment have doubtless hindered reform. Impediments that have been eliminated in key overseas markets have been allowed to remain in Japan, making Japanese financial markets less attractive, relatively costly or difficult to use. The domestic corporate bond market is a striking case in point. This may also have led leading Japanese financial institutions to compete with particular intensity abroad in areas where competition at home remains circumscribed.

The traditional separation of banking and securities business has perhaps provided the most prominent example of such potential competition between different types of financial institution "overflowing" abroad, with banks' participation in the underwriting of Japanese corporate issues overseas. Japan is not alone in the dilemma of how to reconcile domestic regulations separating banking and securities business – which may well be useful on prudential grounds – with the need to compete in overseas markets where no such regulations are enforced. This is a particularly thorny issue.

Another feature making Japanese markets unattractive to foreigners is the continued taxation of financial transactions. The Securities Transactions Tax and various stamp duties as well as withholding taxes on non-resident investment income from domestic securities all make transactions in domestic markets less attractive for non-residents than comparable transactions in international markets. However, recent reforms, such as cutting the transactions tax and the granting of certain (limited) exemptions from tax withholding, represent progress towards the lighter taxation of financial transactions. One indication of the potential attractiveness of Japanese financial assets, once tax arrangements move closer to international financial market norms, is the much-increased interest shown by foreign central banks in Japanese Treasury bills following their recent de facto exemption from the withholding tax.

The consequence of maintaining domestic restrictions and/or impediments at a time of virtually free capital movements was that a large amount of yen banking and fund-raising business was diverted abroad. Japanese institutions (whose foreign presence increased appreciably during the decade) have clearly captured a good deal of this business. But they might have captured still more had the business been kept in Japan.

Nevertheless, the more important international consequences of the liberalisation of Japanese financial markets were perhaps macroeconomic. Two effects were important, one on the exchange rate of the yen and the other on the strength of domestic demand.

The freeing of capital movements permitted Japanese financial institutions to diversify massively into foreign assets. Because this occurred at a time when foreign exchange sentiment in favour of the US dollar was strong – because of high interest rates as well as more nebulous confidence factors – capital outflows were particularly heavy. Despite a widening current account surplus in the first half of the decade, the yen suffered a temporary undervaluation that exacerbated international imbalances. As domestic liberalisation continued, and as the foreign diversification of Japanese portfolios was virtually complete by the late 1980s, this depressive effect was reversed.

Secondly, domestic liberalisation contributed to the unusually strong domestic demand led boom that, by 1990, had greatly reduced the current account surplus. Virtually nobody foresaw the strength and persistence of this boom in domestic demand over the four years from 1986 to 1990, when the average rate of growth of domestic demand exceeded 6%. Moreover, the process of liberalisation made the usual financial indicators (monetary aggregates, interest rates) more difficult to read and thus may have contributed to an unintentionally strong monetary expansion. Also, with the exception of asset prices, inflation remained moderate.

It is significant that those components of domestic demand most finance-sensitive – business investment, housing and consumers' durables expenditure – all grew with a vigour that was unusually sustained. By contrast, the relatively finance-insensitive elements of demand expanded more or less in line with past trends. The maintenance of such divergence between these two types of expenditure over a period as long as four years appears unprecedented.

The fact that liberalisation took place at a time when monetary conditions were relatively easy, and became easier as reform progressed, clearly contributed to this result. In the short run, this combination of strong real growth and easier monetary conditions facilitated the adjustment to liberalisation not only because of the apparently healthier profitability and balance-sheet position of the corporate sector during boom conditions (so that banks were faced with fewer bad debts), but also because the gap between regulated and market-determined interest rates tends to be smaller during times of easy money.

The boom, however, had the effect of making banks and others over-optimistic, notably with respect to real estate investments. The eventual ending of the boom revealed a marked deterioration in banks' portfolios; the volume of bad and doubtful loans reached record levels. It also revealed important shortcomings in the way securities houses conduct their business.

Japan was not alone in having to confront these difficulties. As the recent BIS *Annual Report* noted, many other countries also found that moving to a less regulated environment went hand in hand with excessive risk-taking by banks and other financial institutions and with much more pronounced asset price cycles.[137] The emphasis on gaining market share is perhaps natural for those brought up in a highly regulated system that institutionalises excess profits. With deregulation, profits – not market share – become crucial. Yet a regulation-bound psychology that stressed market share proved slow to change as excessive risks were taken in the quest for growth. The need to allow time for financial institutions to learn to act in a new environment suggests that Japan's gradualist approach to the introduction of financial market reform was wise. It also suggests that internationally agreed measures to ensure that banks strengthen their capital base will continue to play an important role in maintaining a financial system that is resilient to shocks. Recent steps to improve the transpar-

[137] See Chapter VIII of the Annual Report (Bank for International Settlements (1992a)). See also the conclusions drawn by the former UK Chancellor of the Exchequer, who was closely identified with deregulation in the United Kingdom (Lawson (1992)).

ency of securities houses' operations should also contribute to a healthier financial system.

The pain of adjustment during the inevitable retrenchment after an excessive boom has engendered an atmosphere of pessimism. Yet the elements that contributed to Japan's rise to prominence in the international financial world during the 1980s – a productive real economy, a well-established record of low inflation and high domestic savings – remain intact. Financial institutions have had to learn to live in a new, less protected, world. Enhanced prudential supervision and the maintenance of macroeconomic stability continue to be important pillars of official policy. Against such a background, the present difficulties should not obscure the likely emergence of a more efficient and more competitive financial system – the ultimate goal of the long period of reform.

Appendix I

A chronology of financial market liberalisation

The *Chronology* that follows provides an overview of the process of liberalisation as it unfolded over the last twenty years or so.

Note: Material for this *Chronology* has been drawn from several sources. The major source was the BIS's *Chronology of Economic Policy Developments.* Bank of Tokyo (1987), Cargill and Royama (1988), Economic Planning Agency (1984), Federation of Bankers' Associations of Japan (1991), OECD *Economic Surveys,* Suzuki et al. (1987), Usuki (1991) and Yamashita (1989) also provided additional information. Note that details of the timing of liberalisation of the term, minimum amounts and issue ceilings of CDs, MMCs and large-denomination time deposits are shown in Table A1, and not in this *Chronology.*

Abbreviations used:

BA: Bankers' Acceptances
CD: Certificates of deposit
MMC: Money market certificates
TB: Treasury bills
TSE: Tokyo Stock Exchange
BoJ: Bank of Japan
CP: Commercial paper
MoF: Ministry of Finance
TIFFE: Tokyo International Financial Futures Exchange

Date		International
1970	*December*	First "Samurai" bond issue (yen-denominated bonds, issued by non-residents in Japan).
1972	*April*	Interbank foreign currency transactions permitted in Tokyo with start of dollar-call market.
1975		
1976		
1977		
	May	First issue of Euro-yen bonds by a non-resident.
1978		
1979	*February*	The ban on the acquisition of yen-denominated bonds by non-residents removed.
	March	First issue in Japan of unsecured yen-denominated bonds by a foreign private company.

Domestic	Date	
		1970
		1972
The first law permitting deficit-financing bonds (i.e. bonds to cover current government deficits – as distinct from construction bonds). Requires annual renewal.	*December*	**1975**
Official recognition of Gensaki transactions.	*March*	**1976**
First issue of 5-year government bonds ("discount" bonds).	*January*	**1977**
Securities Dealers Association starts new OTC bonds quotation system (separate "bid" and "ask" quotations followed in August).		
Members of the syndicate purchasing government bonds permitted to resell deficit-financing bonds that have been held for at least a year. (Extended to construction bonds in October.)	*April*	
Greater flexibility in bidding in the call money market: further measures in October (7-day call trading) and November (one-month bill trading).	*June*	**1978**
First issue of medium-term coupon government bond (the first to be issued by auction; 3-year bonds on this occasion followed by 2-year bonds in June 1979 and 4-year bonds in June 1980).		
Ceiling on Gensaki selling for city banks increased from ¥5 billion to ¥20 billion (raised to ¥50 billion in April 1979 and abolished in April 1980).	*October*	
		1979

Date	International
1979	
May	Permission granted to banks to introduce short-term "impact loans" (i.e. foreign currency loans to residents) subject to certain conditions. Ban on Gensaki transactions by non-residents lifted. Non-residents allowed to purchase yen-denominated CDs.
1980	
March	Foreign exchange banks allowed to make medium and long-term impact loans. Ceiling on foreign banks' issues of yen-denominated CDs raised to 20% of yen-denominated assets by the second quarter of 1981. Deregulation of interest rates of free yen deposits held by non-resident official institutions.
December	New Foreign Exchange and Foreign Trade Control Law comes into effect: – further liberalisation of impact loans; – non-resident bank accounts permitted, replacing non-resident free yen accounts; – Japanese residents allowed to hold interest-bearing foreign currency accounts with Japanese banks; – the designated-company restriction (under which foreign ownership could not exceed 25% of the individual company's assets) to apply to eleven companies only; – banks authorised to participate in overseas syndicated yen-denominated loans subject to certain ceilings. Reporting and prior notice provisions (and for some transactions approval) remain.
1981	

Domestic	Date	
Further deregulation of the interbank call rate.	*April*	**1979**
First issue of unsecured convertible bond.		
Domestic CDs introduced (see Table A1).	*May*	
Deregulation of over 2-month interbank bill rate.	*October*	
Securities companies introduce the medium-term government bond ("Chukoku") fund.	*January*	**1980**
Large securities companies allowed to borrow in the call market (subject to limits).	*November*	
Members of government-bond purchasing syndicate permitted to resell bonds that have been held for at least 100 days.	*April*	**1981**
City banks allowed to buy in the Gensaki market.		
Bank of Japan starts to sell short-term government securities (Financing Bills) on the open secondary market.	*May*	
New maturity-designated bank time deposit introduced.	*June*	
New type of loan trust fund ("Big") account introduced by trust banks.		

Date		International
1981	*July*	Japanese banks' overseas subsidiaries allowed to lend Euro-yen (for one year or less) to finance trade with Japan.
1982	*March*	Securities companies banned from selling foreign-currency zero-coupon Euro-bonds to residents (ban lifted subject to certain restrictions in February 1983).
	April	Increased yen-foreign currency conversion limits for foreign banks operating in Japan.
	May	Japanese banks permitted to lend overseas yen on a long-term basis to borrower of their choice (earlier priority system for overseas yen lending abolished).
	October	Criteria for the issuance of unsecured bonds by Japanese residents in overseas markets defined.
1983	*January*	Regulations for the issue of "Samurai" bonds further relaxed: – approval period reduced from about one year to 3–6 months; – AAA borrowers and private corporations allowed first time access to market; – interval requirement (that two quarters had to elapse between successive issues by the same borrower) relaxed. (These restrictions were progressively eased in later years.)
	February	City banks' overseas subsidiaries allowed to float bond issues abroad to finance parent banks' offshore lending.
		The quota for the issue of yen-denominated CDs by foreign banks was increased to 30% of yen-denominated assets.
	April	The global ceiling on foreign banks' yen/foreign currency conversion limits raised (further raised in December).
	May	Postal insurance system permitted to invest in foreign bonds.
	June	MoF lifts the restriction on short-term (less than one year) yen lending by Japanese banks' overseas subsidiaries to non-residents. Euro-yen lending plans remain subject to reporting requirements.
	December	The quota for the issue of yen-denominated CDs by foreign banks increased to 50% of its yen-denominated assets.

Domestic	Date	
		1981
New government-bond fund account authorised for securities companies.	*October*	
New type of bank debenture ("Wide") authorised for long-term credit banks.		
First issue of corporate bonds with non-detachable warrants.	*December*	
Medium-sized securities companies allowed to borrow in the call market (limits on large companies raised).		
		1982
New Bank Law and Securities and Exchange Law take effect.	*April*	
Eligibility standards for issuing unsecured convertible bonds relaxed (further measures of relaxation progressively adopted in later years).	*January*	**1983**
Banks authorised to sell long-term government bonds over the counter.	*April*	
Securities houses authorised to extend personal loans with public bonds as collateral.	*June*	
Banks allowed to sell medium-term government bonds over the counter.	*October*	

Date		International
1984	*April*	Permission for domestic companies to trade in foreign currency denominated commercial paper and CDs in the domestic market.
		Relaxation of restrictions on Japanese residents' issuance of straight and convertible yen-denominated Euro-bonds; measures to facilitate flotations include permission for swap agreements and hedging of forward foreign exchange transactions. (Further measures of relaxation progressively adopted in later years.)
		Abolition of "real demand" rule whereby banks could trade in forward yen only as the counterpart of actual international trade transactions of their customers.
		Relaxation of rules applicable to "Samurai" bonds (two further relaxations took place later in the year).
	May	Publication of *Yen/Dollar Exchange Rate Issues* (Joint Report of the Japanese Ministry of Finance-US Department of the Treasury Working Group). Measures agreed include (i) liberalisation of non-resident issue of Euro-yen bonds; (ii) freer issuance of yen-denominated CDs in Japan; (iii) permission for foreign and Japanese banks to issue Euro-yen CDs with maturities of six months or less; (iv) qualified foreign banks allowed to enter trust banking business. In addition examination of: – Bankers' Acceptance market; – withholding tax on Euro-bonds; – market for short-term government debt.
		Bill abolishing "designated company system" passed by the Diet (see the note under December 1980).
	June	Yen foreign currency conversion limits for banks abolished.
		Short-term Euro-yen loans to residents liberalised.
	December	Liberalisation of Euro-yen bond issues by private non-residents: – collateral requirement dropped; – foreign securities houses will be allowed to be lead managers for Euro-yen bond issues. First issue made in this month. (Additional measures of liberalisation adopted progressively in later years.)
		Issues of yen-denominated CDs in the Euro-market by Japanese and foreign banks and by securities companies' overseas bank subsidiaries allowed.

Domestic	Date
	1984
Banks allowed to deal in the secondary market for government bonds.	*June*

Date		International
1985	*January*	Withholding tax on the interest earnings of non-residents on Euro-yen bonds issued by Japanese residents to be removed (with effect from April 1985).
	April	Wider non-resident access to Euro-bond and "Samurai" bond market to be allowed. Medium and long-term Euro-yen loans to non-residents liberalised (the remittance of such loans by Japanese foreign subsidiaries to head office not allowed).
	June	Nine foreign banks allowed to participate in trust banking business in Japan.
	August	First "Shogun" bond issue (foreign currency denominated bond issued by non-residents in Japan).
	October	Foreign banks start trust business.
	November	First Euro-yen straight bond issued.
1986		
	February	First regular foreign members of the TSE (six securities companies).
	April	The credit rating system in the qualification standard fully introduced for Euro-yen bonds issued by non-residents. Floating rate notes and currency conversion bonds were introduced for Euro-yen issued by residents.

Domestic	Date	
First unsecured straight corporate bond issued (criteria applied to the issuance of such bonds progressively relaxed in later years).	*January*	**1985**
Money market certificates allowed to be sold by banks (from April for city banks) with an interest rate ceiling of 0.75 percentage points below weekly average new CD issue.	*March*	
Yen-denominated Bankers' Acceptance (BA) market was established. (Restrictions on this market were subsequently relaxed in stages but market never really developed and is now defunct.)	*June*	
Securities companies open CD trading: prohibition on their purchase of bills relaxed.		
5–6 month bill transactions started.		
Call market transactions without collateral authorised.	*July*	
2–3 week call market transactions started.	*August*	
First sales of large-scale public bond investment trusts.		
Interest rate ceilings on large-denomination time deposits (¥1 billion and over; 2 years and less) removed.	*October*	
Government bond futures market established.		
Issuance of corporate bonds with detachable warrants permitted (first issue in December).	*November*	
BoJ starts repurchase agreements in government bills (FB Gensaki).	*January*	**1986**
First issue of short-term government bonds (TB) (minimum lot of ¥500 billion; 6-month maturity).	*February*	
Banks and other financial institutions allowed to resell government bonds after holding them for at least 40 days, instead of 100 days as earlier (for own portfolio account; 10 days for dealing account).		
Uncollateralised call money transactions diversified (week-end).	*August*	
Public issue of 20-year government bonds.	*October*	

Date		International
1986	*December*	Japan Offshore Market (JOM) opened: – inflows of funds from offshore accounts to domestic accounts of parent bank "banned in principle", although some transfers allowed to alleviate short-term shortages of funds; – offshore accounts cannot be used as basis for issuing CDs; – minimum deposit lot ¥100 million; – minimum time 2 days.
1987	*February*	Japanese banks' overseas branches allowed to deal in foreign CP.
	July	Credit rating system in the qualification standards for Euro-yen bond issues by residents introduced.
	August	A subsidiary in Japan of a foreign bank obtains a licence for securities business.
	October	Membership of the government bond underwriting syndicate opened to any foreign bank but only 0.85% of bonds to be allocated to them (1.57% for foreign securities firms).

Domestic	Date	
		1986
Major change in the criteria for issuance of straight and convertible bonds; rating system for domestic bonds introduced (with effect from July).	*February*	**1987**
The deposit rate of postal savings and other official funds with the Trust Fund Bureau reformed to move with interest rates on government bonds (previously set by statute and linked to the official discount rate).	*March*	
Liberalisation of rules governing the issuance of privately-placed bonds; larger-scale issues now permitted (first issue in July).	*May*	
Bond short sales allowed.		
Banks, securities houses and insurance companies permitted to trade in overseas financial futures markets.		
First straight bond issuance on the "proposal" method (adopted to increase competition).		
Packaged stock futures market established on the Osaka Stock Exchange (Osaka Stock Futures 50) ending a ban introduced in 1945.	*June*	
Call money transactions without collateral diversified (2–6 days).	*July*	
Minimum lot of TBs and FBs reduced (¥100 to ¥50 million) and for TBs and FBs purchased by sovereign tax-exempt entities, introduction of a system under which an amount equivalent to the tax withheld to be refunded at the time of purchase (rather than redemption as hitherto).	*August*	
Banks allowed to sell government bonds from date of issue instead of having to hold them for at least 40 days as earlier.		
Auction method for 20-year government bond issues introduced.	*September*	
Ceiling on CD issues removed.	*October*	

Date		International
1987	*November*	Restrictions on Euro-yen CP issues by non-residents removed.
1988	*January*	Restrictions on domestic yen ("Samurai") CP issues by non-residents relaxed.
	February	The issue abroad of warrants on 10-year government bonds permitted (first issue in March).
	March	Liberalisation of overseas financial options by domestic financial institutions with non-residents.
	April	Postal saving system allowed to progressively increase foreign investments and to diversify domestic investments (i.e. no longer obliged to place all its funds with the Trust Fund Bureau).
	May	Sixteen foreign securities companies are admitted as new members of the TSE, bringing total to twenty-two.
		Participation of residents in overseas financial futures markets permitted.
	October	MoF increases the share of foreign financial institutions in underwriting 10-year government bonds from 2.5 to 8% of monthly volume.
	December	Relaxation of restrictions on issuing Euro-yen CP by non-residents.
1989		

Domestic	Date	
Domestic CP market established.	*November*	**1987**
Partial auction method (viz. "volume bidding") of the underwriting amount for 10-year government bond issues introduced.		
		1988
Major tax reform: securities transactions tax on bond transactions reduced; wider capital gains taxation; tax exemption for interest on small savings deposits (Maruyu) abolished.	*April*	
Post offices and life insurance companies start to sell newly issued government bonds to subscribers.		
Financial Futures Law enacted.	*September*	
Introduction of share-index futures market (TOPIX in Tokyo and NIKKEI 225 in Osaka).	*November*	
Banks allowed to securitise mortgage loans.		
Introduction of new method of monetary control: operations on paper with shorter maturities to reduce the BoJ's institutional influence on money market rates; extension of the maximum contract period in the unsecured call market from 3 weeks to 6 months. Open market operations in CP to follow later.		
Relaxation of restrictions on domestic issues of CP.	*December*	
MoF requires the thirty-five Japanese banks with overseas branches or subsidiaries to observe, by March 1993, the minimum capital requirements of the Basle Agreement.		
Introduction of new short-term prime rate, linked to market rates.	*January*	**1989**
All but one sogo bank reclassified as regional banks.	*February*	
MoF allows after-issuance sales of detached warrants and ex-warrant bonds with maturities of more than 4 years from 1st April.	*March*	

Date		International
1989	*April*	Relaxation of restrictions on the JOM. Ceiling on daily net inflow of funds from offshore accounts raised from 5 to 10% of banks' average non-resident transactions in the previous month and 5% ceiling on daily net outflow removed.
	May	Medium and long-term Euro-yen loans to residents permitted. Banks and other financial institutions allowed to trade as brokers in overseas financial futures markets.
	July	Non-bank residents allowed to hold deposits of up to ¥5 million with banks overseas without prior authorisation.
1990		

Domestic	Date	
Raising of ceiling for maturity of bills and calls to one year.	*April*	**1989**
For the first time 10-year government bonds issued by competitive tender ("price-bidding" method): the tender share set at 40% with the other 60% sold under old syndicate system based on average auction price.		
Establishent of the Tokyo International Financial Futures Exchange (TIFFE), with operations starting in June. (3-month Euro-yen deposit futures, 3-month Euro-dollar deposit futures and yen-dollar currency futures).		
Facilities for bond borrowing and lending introduced with two markets, one where the Japan Securities Finance Company acts as a sole broker and the other a direct deal market.	*May*	
Banks allowed to broke government bond futures for the first time.	*June*	
Introduction of small-lot MMCs (minimum lot of ¥3 million).		
Beginning of share price index option trading in the Osaka Stock Exchange (NIKKEI 225 Option).		
Banks allowed to securitise loans to local government.	*July*	
Introduction of 3-month government bills (TBs).	*September*	
Introduction of small-lot MMCs with 3-month, 2 and 3-year maturity (in addition to existing 6-month and 1-year maturity).	*October*	
Beginning of share price index option trading at the TSE (TOPIX option) and the Nagoya Stock Exchange (Option 25).		
Introduction of trading of US Treasury Bond futures at the TSE.	*December*	
MoF decides on a substantial increase in the amount of 3–6 month TBs to be issued by auction. (Further significant growth subsequently.) BoJ to undertake open market operations in TBs.		
Regulations governing CP issuance by domestic firms eased: – securities houses allowed to issue CP (to add to their own funds only); – qualification standards for prospective issuers relaxed.	*January*	**1990**
Banks allowed to sell securitised corporate loans to institutional investors.	*March*	
MoF restricts banks' property lending.		
TSE launches options on government bond futures.	*May*	
Banks allowed to issue subordinated debt (where lenders have a lower claim to repayment in the event of the borrowers' bankruptcy) to help them meet capital adequacy standards. (In November, MoF asks banks not to make excessive use of subordinated loans given equity market weakness.)	*June*	

Date		International
1990	*July*	Non-bank residents allowed to hold deposits of up to ¥30 million with banks overseas without prior authorisation. Authorisation for amounts up to ¥100 million virtually automatic.
	October	Several foreign securities companies given a licence to conduct investment trust business.
1991	*February*	MoF allows two Japanese branches owned 50% by US-based securities companies to undertake free foreign exchange trading (traditionally reserved for banks).
	March	Foreign securities houses' subsidiaries in Japan given banking licences.
1992		

Domestic	Date	
		1990
Market for 200 Euro-dollar warrants launched with the Japan Bond Trading Company (brokers' broker) providing prices. (Hitherto 350 Euro-dollar warrants traded over the counter, with only limited regulation.)	*September*	
Collateralised call-money transactions liberalised (offer/bid system introduced).	*November*	
		1991
BoJ announces intention to abandon "window-guidance" on banks' lending growth.	*June*	
TIFFE launches options on 3-month Euro-yen.	*July*	
After a number of financial market scandals, MoF announces it will cease issuing non-binding verbal directives to the institutions under its supervision and rely instead on tighter rules set by self-regulating bodies.	*August*	
Discretionary investment accounts banned; compensating customers for investment losses to incur criminal penalties.	*October*	
Pension funds and investment trusts allowed to buy securitised corporate loans. Requirement to seek debtor's permission to sell waived.	*November*	
MoF replaces requirement for financial institutions to hold the growth in property lending below their overall lending growth by new measures to be triggered in the event of rises in property lending significantly above overall lending.	*January*	**1992**
The Government proposes to: – create a new agency to supervise the securities markets; – enhance the regulatory power of the Japan Securities Dealers Association; and – increase penalties for securities companies which manipulate stock prices or compensate customers for their losses.	*February*	

Date	International
1992	
August	Bond issuance restrictions eased: more companies allowed to issue bonds overseas and restraints on "Samurai" bonds relaxed.

Domestic	Date	
Government proposes financial market reform, to come into force within one year of Diet approval. The main provisions: – allow banks, securities houses and certain other financial institutions to set up commercial and trust banking and securities subsidiaries in which they must hold a majority stake; – permit long-term credit banks and specialised foreign exchange banks to convert into or merge with commercial banks; – enable small institutions such as credit unions and cooperative associations to expand their business; – widen the definition of securities to include commercial paper and certain types of asset-backed instruments; and – subject securitised lease assets, consumer credit and real estate loans to regulation by the Ministry of International Trade and Industry and all other asset-backed securities to supervision by the MoF.	*March*	**1992**
Securities houses allowed to offer money market funds (minimum deposit of ¥1 million) provided that more than half of such funds is invested in securities.	*April*	
Securities and Exchange Surveillance Commission inaugurated under the jurisdiction of the MoF.	*July*	
Various measures to support equity and real estate prices and to strengthen confidence in the financial sector, including: – allowing banks to postpone writing off equity market losses until March 1993, and only disclose market losses for the April–September period; – urging institutional investors to refrain from realising equity market gains to boost their financial results; – easing restrictions on public funds' (e.g. postal savings) investment in the equity market.	*August*	
The Government announces its readiness to provide funds to help banks liquidate non-performing loans.		

Table A1

Deregulation of interest rates on large deposits

		Certificates of deposit (CDs)			Money market certificates (MMCs)		
		Minimum amount	Term	Issue ceiling[1]	Minimum amount	Term	Issue ceiling[1]
1979	May	**¥500m**	**3–6 months**	10% to 25% by 1980 Q1			
1980	April			To 50% by 1981 Q2			
1983	February			To 75% by 1984 Q1			
1984	January	¥300m					
	April			5% increase per quarter			
1985	March				**¥50m[2]**	**1–6 months**	**75%**
	April	¥100m	1–6 months	100%			
	October			150%			150%
1986	April		1 month–1 year	200%		1 month–1 year	200%
	September			250%	¥30m		250%
1987	April			300%	¥20m[3]	1 month–2 years	300%
	October			Abolished	¥10 m		Abolished
1988	April	¥50m	2 weeks–2 years				
1989	October				Disappeared[5]		

Table A1 (continued)

Deregulation of interest rates on large deposits

		Large-denomination time deposits		Small-denomination MMCs	
		Minimum amount	Term	Minimum amount	Term
1985	October	**¥1bn**	**3 months–2 years**		
1986	April	¥500m			
	September	¥300m			
1987	April	¥100m			
	October		1 month–2 years		
1988	April	¥50m			
	November	¥30m			
1989	April	¥20m			
	June			**¥3m**[4]	**6 months, 1 year**
	October	¥10m			3, 6 months, 1, 2, 3 years
1990	April			¥1m	
	November				3 months–3 years
1991	April			¥0.5m	
	November	¥3m [¥10m	3 months–3 years 1–3 months][6]		
1992	June			Abolished	

[1] As a percentage of banks' net worth. [2] With interest rate ceiling of 0.75 percentage points below weekly average of new CD issues. [3] Interest rate ceiling for one to two-year MMCs raised to 0.5 percentage points below the CD rate. [4] Interest rate ceilings were first set below the CD rate. For 3-year deposits the interest rate ceiling was set below the coupon rate for long-term government bonds. Eventually all MMC rates were set below the rates on large-denomination time deposits. [5] Because replaced by unregulated large-denomination time deposits. [6] The minimum ¥10 million was retained for the shorter maturities.

Note: Initial deregulated format indicated in bold.

Sources: BIS *Chronology of Economic Policy Events*, Bank of Tokyo *Tokyo Financial Review*, December 1987, OECD (1984) and Federation of Bankers Associations of Japan (1991).

Appendix II

The use of the yen in international trade

One of the striking features about the use of the yen in international trade is the relatively modest fraction of even Japanese trade denominated in yen. Only a little more than 40% of Japanese exports are denominated in yen, a much lower percentage than is normal for most other industrial countries (Table A2). Even a number of smaller European countries – where foreign-currency denominations of trade might be considered more likely – display a much higher own-currency denomination of exports than does Japan.

Much of the difference between Japan and other industrial countries reflects the greater importance for Japan of the United States market: only 16.4% of Japanese exports to North America were denominated in yen. By contrast 42.2% of exports to western Europe were denominated in yen, still somewhat below the share seen in other countries.

A second additional factor is the pricing policy of Japanese exporters – the tendency to preserve market shares in overseas markets by absorbing exchange rate fluctuations and holding foreign currency prices relatively stable.[1] However, over 60% of Japanese exports to South-East Asia are denominated in yen – in part a reflection of increased trade with overseas subsidiaries of Japanese companies which find it convenient to invoice in yen.[2]

A third influence may be the importance of trading companies which, because they are both exporting and importing, can hedge the risk of dollar-denominated exports by dollar-denominated imports.[3]

[1] See Osugi (1990), pp. 45–8, for a fuller discussion of this.
[2] Tavlas and Ozeki (1992) look at the use of the yen as a regional currency in Asia.
[3] See Taguchi (1982), p. 5.

Table A2

International comparisons of domestic-currency denomination of trade

As a percentage of total trade

	Exports		Imports	
	Observation in 1970s	1988	Observation in 1970s	1988
Japan	17.5	34.3	0.9	13.3
United States	80–90	96.0	50–70	85.0
France	62	58.5	36	48.9
Germany	83	81.5*	45	52.6
Italy	39	38.0*	16	27.0*
United Kingdom	76	57.0	33	40.0
Austria	55		25	
Belgium-Luxembourg	42		28	
Denmark	51		27	
Netherlands	50		31	
Sweden	67		26	
Switzerland	83		41	

* 1987.

Sources: As for Table A3, Scharrer (1979) cited in Taguchi (1982) and Tavlas and Ozeki (1991).

Nevertheless, the share of yen-denominated exports has increased appreciably since 1985 (Table A3). However, this appears to reflect the increased importance of South-East Asia in Japanese exports (see the memorandum item to the table). There is little evidence that recent financial market liberalisation per se has made Japanese exporters much more ready to invoice in yen. Indeed, the yen-denominated Bankers' Acceptance market – launched in 1985 to promote the use of the yen in trade – never developed very much, and has now effectively disappeared.

One final observation on the role of the yen in Asian trade is that not a single other currency is tied to the yen – and this is of course a crucial difference from the position of the Deutsche Mark in Europe. Indeed all Asian countries have maintained much more stable exchange rates against the US dollar than against the yen: in this sense a yen bloc has not emerged.[4] Nevertheless, there is evidence that the yen has become more influential in the area's *financial* market.[5]

Table A3

Japanese yen-denominated trade

As a percentage of total trade

	1970	1975	1980	1985	1988	1989	1990	1991
Exports	0.9	17.5	29.4	35.9	34.3	34.7	37.5	41.9
Imports	0.3	0.9	2.4	7.3*	13.3	14.1	14.5	15.6
Memorandum:								
Exports of machinery and equipment to:								
All regions					37.9	37.9	40.8	43.1
United States					16.7	16.7	16.6	16.6
European Community					45.2	43.3	43.0	42.0
Southeast Asia					52.6	55.3	60.9	62.6

* Fiscal year.

Sources: Ministry of Finance *Annual Report of the International Finance Bureau* and Ministry of International Trade and Industry.

[4] For an illuminating discussion of these issues see Kwan (1992). He suggests that Asian NIEs, close competitors with Japan in export markets, could achieve greater output stability by pegging to the yen. See also Suzuki (1992).

[5] Frankel (1991) found some evidence that the relative influence of Japanese interest rates on interest rates in a number of Asian countries had increased in the period 1988–91 compared with an earlier period.

Appendix III
Supplementary tables

Table A4

Nationality of top Euro-bond lead managers by issuer

1991 ranking	Japanese issuers	US issuers	UK issuers	French issuers	German issuers	European issuers
1	J	US/GB/CH*	US/GB/CH*	F	D	D
2	J	US	US	F	D	US/GB/CH*
3	J	CH	GB	F	D	F
4	J	D	GB	F	D	F/US
5	–	CH	US	–	D	US/CH
6	–	–	CH	–	CH	–
7	–	–	GB	–	D	–
8	–	–	–	–	–	–

* CSFB/Crédit Suisse.

Key: CH: Switzerland; D: Germany; F: France; GB: United Kingdom; J: Japan; US: United States.

Note: Lead managers with less than 5% issue share not shown.

Source: Euromoney *Annual Financing Report* (March supplement).

Table A5

Japanese and US banks in the United Kingdom compared

In billions of pounds sterling, at end-1990

	Japanese	US	*Memorandum:* Japanese/US
Total liabilities	**254.5**	**110.3**	**2.3**
CDs and other short-term paper	40.5	8.0	5.1
Sterling deposits, UK banks	13.4	3.6	3.7
Sterling deposits, other	16.2	13.4	1.2
Foreign currency deposits, overseas	144.8	54.9	2.6
Foreign currency deposits, UK banks	27.8	7.5	3.7
Foreign currency deposits, UK non-banks	8.5	19.6	0.4
Assets, market loans and advances	**236.9**	**102.8**	**2.3**
Sterling	37.0	19.2	1.9
Foreign currency, overseas	164.1	57.5	2.9
Foreign currency, UK banks	19.2	6.3	3.0
Foreign currency, UK non-banks	16.7	19.8	0.8

Source: Bank of England *Quarterly Bulletin* (May 1991).

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