How Lower Japanese Asset Prices Affect Pacific Financial Markets

by Robert N. McCauley and Stephen Yeaple

Soaring asset prices in Japan allowed Japanese banks and life insurers to expand their international activity very rapidly in the late 1980s. Supported by cheap and plentiful capital at home, Japanese banks sought to increase their market share around the world. At the same time, Japanese insurance companies took advantage of increasing gains on domestic share holdings to invest aggressively in foreign securities.

The collapse of Japanese asset prices in the 1990s sharply reduced the wealth of these financial intermediaries and slowed their international activity. Japanese banks lost access to equity markets, while insurance companies lost the cushion of unrealized gains that made investment in risky foreign bonds possible (Chart 1).

This article examines the response of Japanese banks and insurers to the Nikkei's decline. It investigates how lending and investment strategies have changed with the loss of stock market wealth and considers the effect of these changes on international markets.

Growing international wealth and shrinking international intermediation

The fall in Japanese asset prices has affected Japan's financial relations with the rest of the world in contradictory ways. During the 1980s, high asset prices enriched households and firms, boosting consumption and especially capital spending. As a result, Japan's surplus in trade with the rest of the world narrowed. Lower asset prices in the 1990s have led to a widening of Japan's trade surplus, causing the country's *net* international investment position to grow faster in the 1990s than in the late 1980s (Chart 2). At the same time, because lower asset prices have reduced the capacity of Japanese banks and insurers to take on the risks of international intermediation, the growth of Japan's *gross* international assets and liabilities has decelerated sharply.

In the 1980s, Japan's international financial activity expanded well in excess of the country's current account surpluses. Japan ran sizable current account surpluses as exports of merchandise exceeded imports of merchandise, tourist spending abroad, and foreign aid. The inflows associated with these surpluses found their match and more in strong outflows of long-term capital: purchases of foreign bonds and stocks by insurance companies and direct foreign investment by industrial firms. Japanese banks borrowed dollars from banks in Hong Kong, Singapore, and London to bring home to finance foreign security purchases that outran the current account surplus (Table 1). At the same time, Japanese banks expanded outside of Japan through transactions that never touched the country. Japanese banks sought deposits in the interbank markets to fund loans first to Japanese firms' subsidiaries abroad, and then to U.S., European, and Asian firms.[1]

With the decline of the Nikkei, the long-term capital outflows from Japan, both portfolio and direct investments, have fallen off, and foreign investors have intermittently found Japanese bonds and stocks attractive. Yet logic and an accounting identity tell us that some outflows must correspond to the surpluses on the Japanese current account.

In fact, Japanese banks have responded to the changing flows in the goods and securities markets by becoming net providers of funds to the international banking system. That is, Japan's widening current account surplus and declining

[1] Rama Seth and Alicia Quijano, "Japanese Banks' Customers in the United States," Federal Reserve Bank of New York *Quarterly Review*, vol 16 (Spring 1991), pp 79-82 The direct investment outflows on Chart 1 are understated by the growth of Japanese bank equity in effect committed to but not counted as supporting the activity of foreign branches

purchases of foreign bonds and stocks have been accommodated by a massive swing from inflows to outflows of funds through the Japanese banking system (Table 1) This shift parallels the change in Japanese banks' multinational operations from rapid growth to downsizing

Reconciling growing international wealth and shrinking international intermediation turns on the difference between net international wealth and gross international wealth The current account surplus adds to Japan's net international wealth some $100 billion per year When the stock market was booming, Japan's financial institutions were leveraging this growing wealth by borrowing short-term and lending long-term in foreign currency Lower stock market and land wealth has slowed the rise of Japan's gross assets to a rate below that of Japan's net assets (Chart 2) Japan as a trading nation is still accumulating foreign assets while Japan as a financial nation is consolidating

The Nikkei and Asian banking markets

The fall of the Nikkei has tightened constraints on Japanese banks by reducing bank capital Lower share prices have reduced Japanese banks' capital directly because the banks are major holders of industrial firms' shares Japanese city banks hold shares that sum in market value to the banks' own economic wealth (or capital—that is, shareholders' equity plus unrealized gains on their equity portfolio) Other Japanese banks' exposure to the Nikkei average is greater than that of the city banks the market value of Japanese long-term credit banks' and trust banks' shareholdings well exceeds their economic wealth Overall, the decline in the Tokyo stock market (Chart 1) has approximately halved Japanese banks' economic wealth

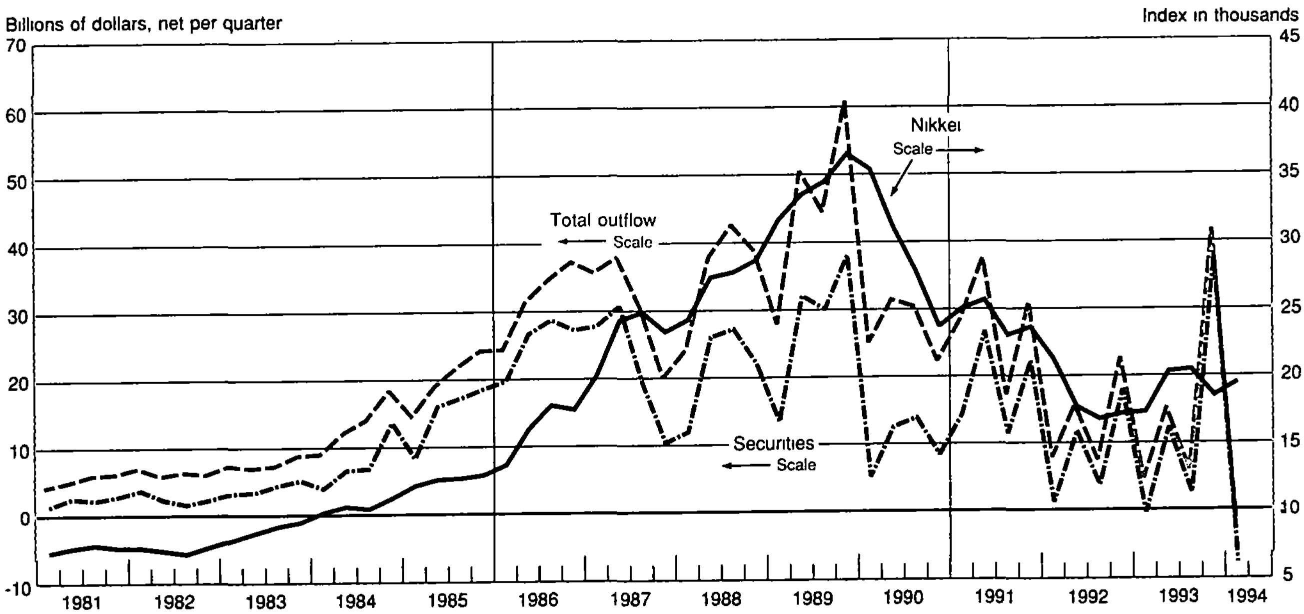
Japanese banks' loss of capital bore immediate consequences for their growth The Basle Accord on the regulation of international banking requires adequate capital to back bank assets [2] When the outline of the international agreement became apparent in 1987, Japanese bankers chose to slow foreign asset growth from a 50 percent per year pace At the same time, however, the rising Nikkei permitted Japanese banks to sell their own shares and to realize capital gains on their customers' shares Consequently, the banks continued to grow assets at double-digit rates and thereby gained market share [3] But when the fall of the

[2] Raj Bhala, *Perspectives on Risk-Based Capital* (Bank Administration Institute, 1989)

[3] See Steven A Zimmer and Robert N McCauley, "Bank Cost of Capital and International Competition," Federal Reserve Bank of New York *Quarterly Review*, vol 15 (Winter 1991), pp 33-59

Chart 1

Purchases of Long-Term Foreign Assets by Japanese Residents



Source Bank of Japan, *Balance of Payments Monthly*

Note The difference between total and securities outflow is mostly direct investment but also includes trade credits and other loans

Nikkei reduced capital, concerns for capital adequacy assumed new urgency, forcing Japanese banks to cease their international expansion.

The decline in Japanese share prices has introduced another constraint: a higher cost of capital. In the 1980s the Tokyo Stock Exchange valued a given stream of Japanese bank earnings at a multiple much higher than any other stock market accorded the earnings of its respective banks. Japanese bank managers could therefore target a return on assets well below that required by the international competition and still satisfy their shareholders' demands. For instance, a Japanese bank could target no more than a 20 basis point spread to cover its capital costs on a U.S. corporate loan, while a U.S. bank required 70 basis points or more.[4]

The decline in the Nikkei has eliminated the cost of equity advantage of Japanese banks. The Tokyo Stock Exchange continues to assign Japanese banks' reported earnings a high multiple, but those earnings are depressed by the cost of write-offs of troubled loans to real estate and nonbank financial firms. More tellingly, Japanese banks, along with the rest of corporate Japan, have lost access to the equity market for new issues of common shares.[5] As a result, in current circumstances, Japanese bank managers must now target a higher return on assets to build capital from internal sources (and to convince their shareholders to buy shares again at some point).

If the cost of equity rises for banks from a small country, their choices in international banking markets are fairly circumscribed. If they move into higher yielding loans, they risk losing equity to loan losses and facing an even higher cost of equity as equity investors come to appreciate the portfolio shift. But banks from a large country that command a substantial share of the international banking market help set the terms of the trade-off between risk and return in international banking. The predominance of Japanese banks in international banking by the end of the 1980s meant that less aggressive bidding on their part could widen spreads for a borrower of a given riskiness.

The fall of Japanese asset prices has therefore created new challenges for Japanese bank managers. Managers can no longer rely on an easy growth of capital to support rapid balance sheet growth and a low cost of equity to support a pricing strategy designed to win market share. Japanese banks have had to alter their business strategies globally to accommodate the new constraints on their activities (Figure 1).

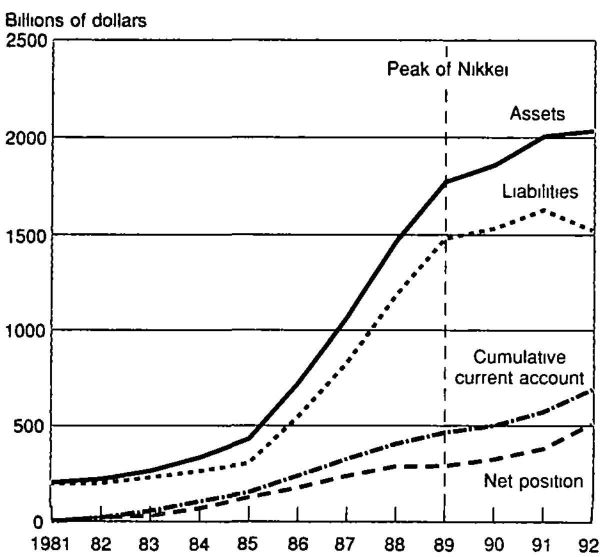
The fall of the Nikkei has resulted in a rapid downsizing of Japanese banks' international operations: by mid-1993, Japanese banks had reduced their international assets by 30 percent and had cut their share in BIS reporting banks'

[4] Zimmer and McCauley, "Bank Cost of Capital," p. 47.

[5] The first Japanese bank has taken advantage of a new possibility of selling preference shares in Tokyo. Hiroyuki Nishimura, "Banks Give Up Plans for Preferred Stock," *Nikkei Weekly*, May 23, 1994, p. 16.

Chart 2

Japan's International Balance Sheet



Source: Bank of Japan, *Balance of Payments Monthly*.

Table 1

Japan's Balance of Payments

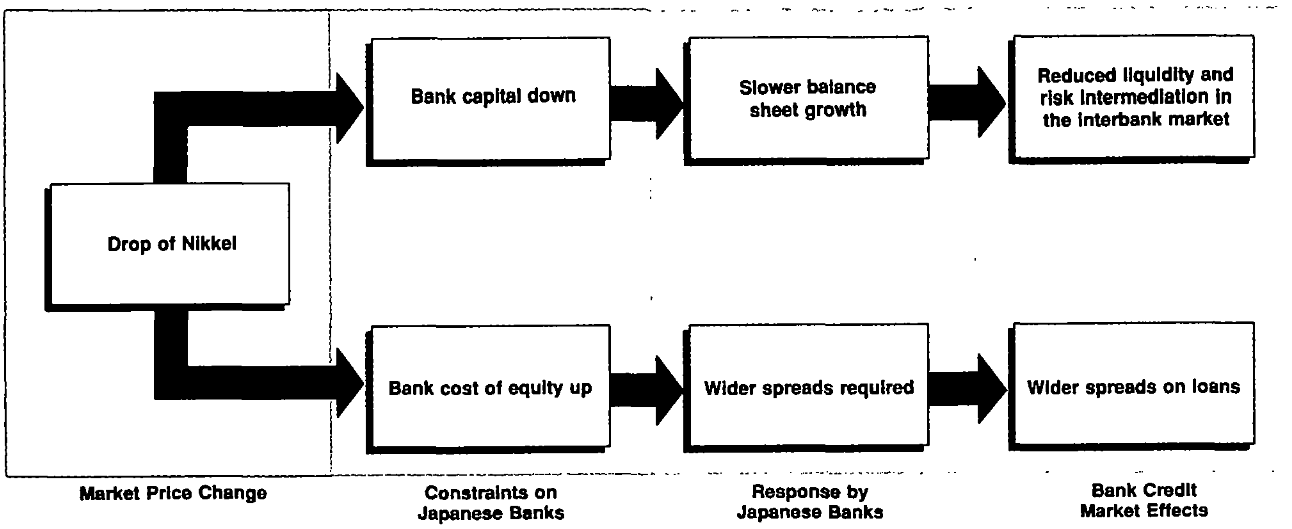
Annual Averages in Billions of Dollars

	1987–89	1991–93
Current account	74.6	107.3
Private long-term capital	−119.0	−23.2
Net direct investment	−32.7	−19.1
Japanese purchases of foreign securities	−96.0	−53.4
Foreign purchases of Japanese securities	+33.1	+37.5
Private short-term capital	63.0	−76.3
Bank foreign currency	45.9	−7.9
Bank yen	−4.3	−52.6
Decreases in deposits	63.3	−46.4
Increases in loans	−67.6	−6.2
Official flows	−11.0	−1.7
Errors and omissions	−7.7	−6.2

Source: Bank of Japan.
Note: Subcategories of private long-term and short-term capital are not exhaustive.

Figure 1

Effect of Drop in Nikkei on Bank Credit Market



international assets by 7 percentage points to 27 percent.[6] The downsizing shows up in two markets the interbank market and the market for corporate and sovereign loans

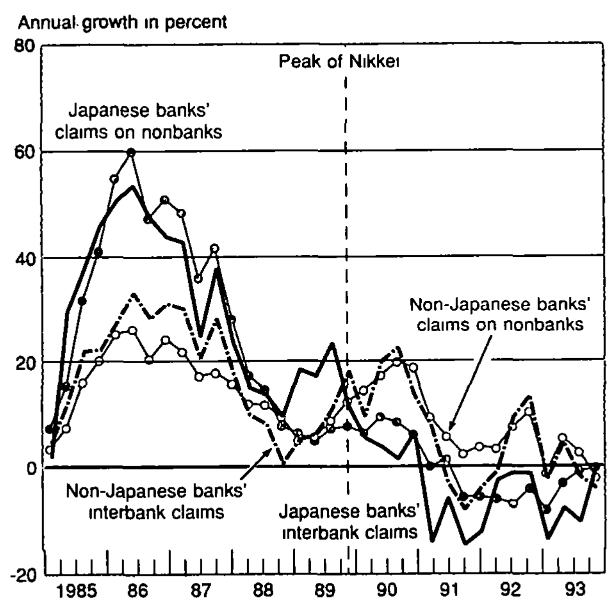
The slowdown in interbank market growth

The mid-1980s saw very rapid growth in Japan's international interbank assets (Chart 3) Japanese banks then slowed the growth of their assets in 1988 in response to the Basle Accord Double-digit growth remained feasible, however, as Japanese banks sold equity and realized gains by selling and repurchasing crossheld shares

As noted earlier, the constraint of the Basle Accord began to bind tightly after the Nikkei tumbled in 1990 Japanese banks then reduced the growth of interbank claims abroad to single-digit rates, well below aggregate interbank market growth Although interbank assets attract a relatively low risk weighting under the Basle Accord (a weight of 0 2 compared with a weight of 1 for a commercial loan), they yield little, contribute negligibly to bank business strategies, and perform functions that off-balance-sheet instruments can reproduce at lower capital charges [7] After the Nikkei sank further in 1991, Japanese banks lightened

Chart 3

International Claims by Nationality of Bank



Source Bank for International Settlements

Note Chart shows assets of banks in reporting countries only

[6] Bank for International Settlements, *International Banking and Financial Market Developments*, October 1993, p 5 The 30 percent figure is adjusted for exchange rate changes

[7] *Recent Innovations in International Banking* (Basle Bank for International Settlements, 1986)

their balance sheets by running off more interbank placements, leading to an unprecedented (in the postwar period at least) global decline in the interbank market.[8]

Japanese banks felt other pressure to reduce their presence in the world interbank market As they lost wealth and experienced a rise in troubled loans to real estate and finance companies at home, their credit standing abroad declined As a result, international banks became more cautious in placing deposits with Japanese banks With less access to interbank liabilities, Japanese banks had further cause to reduce interbank assets

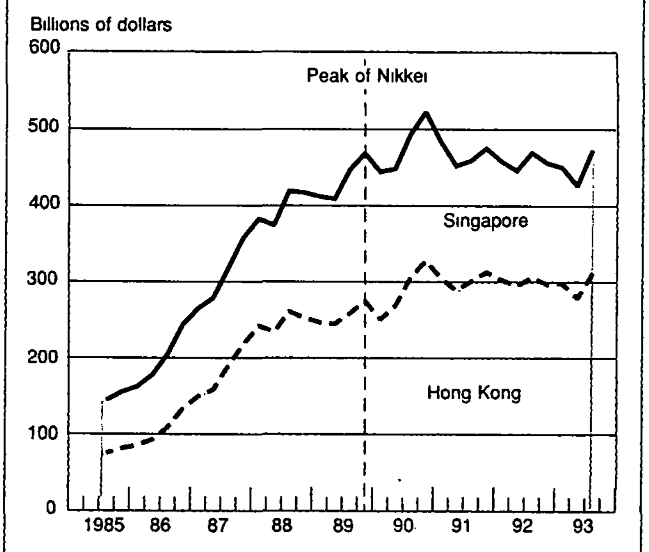
The retrenchment of Japanese banks in global interbank markets left its mark even in the Asian offshore banking centers that serve the world's fastest-growing region. Banks in Hong Kong and Singapore, including banks from Japan, show no growth in their claims on banks abroad in the 1990s (Chart 4)

The consequences of Japanese retrenchment for Pacific countries stem largely from one of the primary roles of the international interbank market bank credit risk intermediation This intermediation arises because depositors prefer certain banks for reasons of credit and habit while other banks less favored by depositors find lending opportunities

[8] Bank for International Settlements, *62nd Annual Report*, 1992, p 161

Chart 4

External Interbank Assets of Asian Offshore Centers



Sources Hong Kong *Monthly Digest of Statistics*, Monetary Authority of Singapore, *Monthly Statistical Bulletin.*

that outpace their deposit growth Although depositors typically want to hold claims on the safest of banks, such a prime bank may have no use for these deposits Thus, the prime bank places the funds with an intermediary bank that onlends to a less creditworthy bank The prime bank favored by depositors might not wish to have a claim on the third bank, but the chain of deposits has indirectly afforded the third bank access to the prime bank's funds.[9] While Japanese banks might be found in all links of such a chain, they were generally in the middle during much of the 1980s (Figure 2, left side)

The Japanese withdrawal from this intermediary role poses a challenge for the external funding of fast-growing Asian borrowing countries. These countries have depended heavily on the interbank market for their international finance Banks in Korea, Malaysia, and Thailand that borrow from banks abroad and onlend to domestic customers account for two-thirds or more of these countries' external bank debt, and banks in Indonesia account for a third of the country's external bank debt These banks occupy the third-tier position in our stylized description of the interbank market, they rely on Japanese banks, in the second tier, for funding Now that Japanese banks are retrenching, banks from elsewhere in Asia need to step into the second tier. To do so, they need to meet the capitalization, disclosure, and accounting standards of the first-tier banks.

The widening of banking margins for sovereigns and firms

The market for corporate and sovereign loans provides further evidence that the Nikkei's collapse has led Japanese banks to change their international strategies The rising cost of equity may have prompted Japanese banks to widen the margin between deposit and lending rates for foreign borrowers. To be sure, Japanese banks have widened their margins for domestic borrowers,[10] but may have done so only because they perceived greater risk in their borrowers' finances owing to slow growth

A look at average spreads on internationally syndicated loans (Chart 5) shows no break between the 1980s and 1990s The most marked change is a widening of spreads that coincides roughly with the agreement on the Basle Accord But such evidence can mislead owing to shifts in composition of the borrowers For instance, the best Korean names dropped out of the syndicated loan market in 1988-89.

[9] Steven V O Clarke, *American Banks in the Interbank Market* (New York New York University Graduate School of Business Administration, 1984), and Robert Z Aliber, "External Shocks and U S Domestic Financial Stability," in *The Search for Financial Stability The Past Fifty Years* (San Francisco Federal Reserve Bank of San Francisco, 1986), pp 87-107

[10] Kunio Okina and Chihiro Sakuraba, "Balance Sheet Adjustments and Interest Rate Policy in Japan," paper prepared for the autumn meeting of central bank economists at the Bank for International Settlements, Basle Switzerland, November 16-17, 1993

A different picture emerges from the terms offered to individual borrowers flagship borrowers from Korea, Thailand, and Indonesia appear to face wider spreads on syndicated loans starting in 1990 and 1991 (Table 2) The timing of the increase in spreads is consistent with the thesis that the higher cost of equity for Japanese banks has led to a widening of their required spreads and thereby to wider observed spreads in banking markets around the Pacific

This widening of spreads does not reflect deteriorating credit quality (Table 3) The credit standing of these countries suffered no deterioration—with the partial exception, perhaps, of Indonesia Moreover, these economies continued to grow strongly in the early 1990s, so the wider spreads cannot be interpreted as an expression of higher borrower risk in a recession (as can the parallel widening of spreads to prime U S corporations in the same period)

The shift in loans toward Asia

Although Japanese banks have reduced their international lending overall, they have chosen to pursue moderate growth in Asian assets A representative of a major Japanese city bank, explaining this change in the pattern of overseas lending, noted that the "Asia-Pacific" region offered "better risk/return relationships" than Europe or North America [11] Another banker contrasted his bank's experience with problem U S property and leveraged loans to comparatively "sound" loans in Asia He reported that his bank was increasing its Asian exposure by 3 to 4 percent per year despite static overall international operations [12]

The distribution of assets across Japanese banks' foreign branches confirms this shift (Chart 6) The share of overseas assets booked in London has been falling since 1988 and the share booked in the United States has been falling unevenly since 1989 Meanwhile, the share booked in Hong Kong has been rising

Notwithstanding the strategic reallocation toward Asia, Japanese banks claim a smaller market share in the region's banking markets Japanese banks no longer occupy the first position that they gained in the 1980s among banks that lead syndicates providing credits to

[11] Reese Harasawa, Chief Financial Manager, Corporate Planning Division, Mitsubishi Bank, presentation to Salomon Brothers Annual Global Banking Conference, April 1993

[12] Hiroshi Ichizawa, director and general manager for Asia and Oceana at Sakura Bank, quoted by Peter McGill, "Bankers and Brokers Back Asian Boom," *Euromoney*, December 1992, p 98

Figure 2

Flow of Lending in Asia

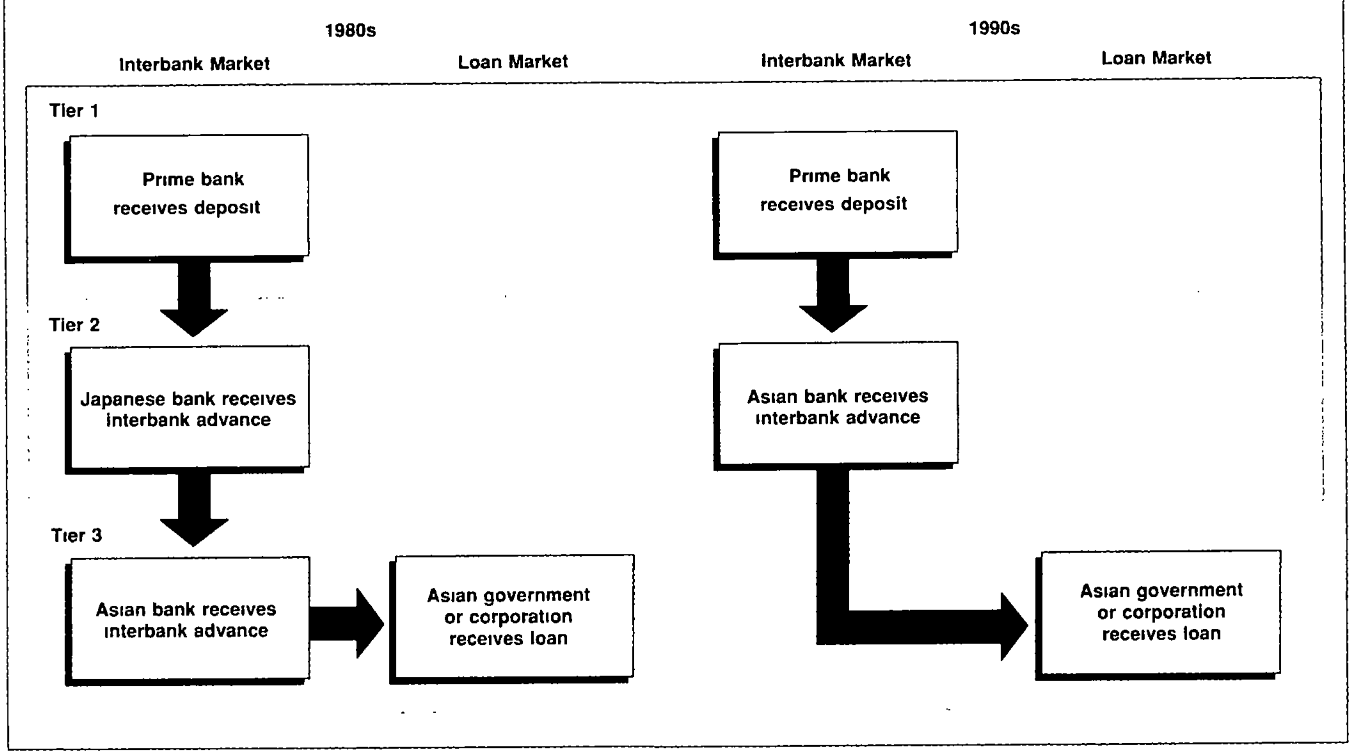
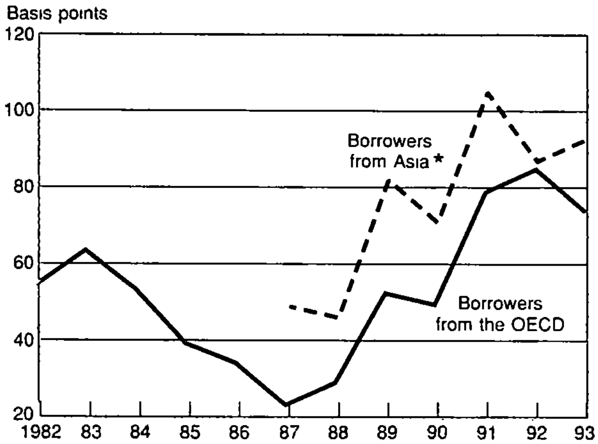


Chart 5

Spread on International Term Loans



Sources Organization for Economic Cooperation and Development, *Financial Market Trends*, *International Financing Review*

Notes Chart shows loans of greater than three years and $30 million, weighted by dollar value Data are through September 1993

*Comprises Hong Kong, Indonesia, Korea, Malaysia, Singapore, Taiwan, and Thailand

Asia's largest corporations and governments In 1991 they were superseded by European banks in this role, and even by local banks (Chart 7)

Partial evidence suggests that Japanese banks hold a lower fraction of loans to Asian borrowers in the 1990s than they did in the 1980s Data on Japanese banks' claims on individual countries are not published, but consider claims on Indonesia, Korea, Malaysia, Taiwan, and Thailand reported by banks in the United States, France, Germany, Britain, and the Netherlands (Chart 8) [13] Presumably, most of the balance is held by Japanese banks (although Swiss and Italian banks are other major players) Through the noise introduced by exchange rate changes, a signal emerges U S and European banks appear to have stopped losing market share to all other banks, including Japanese banks

Moreover, Japanese banks may have been ceding market share at a rate faster than is suggested by the upturn in U S and European banks' share Banks from Asian surplus countries—Hong Kong, Singapore, and Taiwan—are stepping into the gap left by Japanese banks Prominent among the syndicate leaders for credits to Asian borrowers (Chart 7) are Hong Kong Shanghai Bank and banks from Singa-

[13] We exclude Hong Kong and Singapore because of the extensive offshore banking operations there

Table 2

Terms of Syndicated Loans to Flagship East Asian Borrowers

Borrower	1987 Size (Millions of Dollars)	1987 Maturity (Years)	1987 Spread (Basis Points)	1988 Size (Millions of Dollars)	1988 Maturity (Years)	1988 Spread (Basis Points)	1989 Size (Millions of Dollars)	1989 Maturity (Years)	1989 Spread (Basis Points)	1990 Size (Millions of Dollars)	1990 Maturity (Years)	1990 Spread (Basis Points)	1991 Size (Millions of Dollars)	1991 Maturity (Years)	1991 Spread (Basis Points)	1992 Size (Millions of Dollars)	1992 Maturity (Years)	1992 Spread (Basis Points)
Korea																		
Korea Exchange Bank	500	1	25 0										300	5	40 0			
		2-7	37 5															
Korea Development Bank	500	1-2 5	12 5							100	5	12 5	200	5	35 0			
		2 5-4	25 0															
Korea Electric Power	40	1-5	25 0													150	8	66 8
		6-10	37 5															
Indonesia																		
Republic of Indonesia	350	1-6	62 5				500	1-4	25 0	400	8	50 0	400	1 3	75 0			
		7-8	75 0					5-8	62 5					4-7	87 5			
Pertamina				126	1-3	100 0							800	13 5	137 5			
					4-8	87 5												
					9-12	100 0												
Thailand																		
Thai Oil Company				100	1	37 5				150	1-5	25 0	80	10	62 5	165	1-4	62 5
					2-10	50 0					6-10	37 5					5 9	75 0
Thai Airways	35	1-4	12 5										94	12	70 0	70	12	75 0
		6-9	25 0													85	12	65 0

Source Organization for Economic Cooperation and Development, *International Financing Review* pore, Taiwan, and even Malaysia

Across the Pacific in the United States, Japanese banks have gradually retrenched their operations Adopting the same strategy they had pursued in other markets, Japanese banks in 1990 slowed the growth of their interbank and other claims in this country to a rate below that of other banks (Charts 9 and 3) In the commercial and industrial credit market, however, Japanese banks' loans kept growing well after U S banks had started to retrench More recently, Japanese banks have been losing market share as the market has revived but Japanese bank loans have not

In sum, the decline in domestic asset prices has led to a reduction in overseas lending—first interbank and then customer—in the 1990s by Japanese banks This retrenchment has to some extent spared business in Asia, where bankers expect better risk-adjusted returns than those available in Europe and America Nevertheless, spreads appear to have widened for Asia's flagship borrowers Japanese banks' response to their own loss of capital has created opportunities for banks from Europe and surplus countries in Asia

Table 3

Measures of Sovereign Risk for Three Asian Countries

	1989	1990	1991	1992
Credit Ratings (Assessments at Year-End)				
Standard & Poor's				
Indonesia	NR	NR	NR	BBB–
Korea	A+	A+	A+	A+
Thailand	A–	A–	A–	A–
Moody's				
Indonesia	NR	NR	NR	NR
Korea	A2	A1	A1	A1
Thailand	A2	A2	A2	A2
Institutional Investor†				
Indonesia	45 3	48 0	50 4	50 5
Korea	67 6	68 7	68 1	67 6
Thailand	59 8	62 3	62 5	61 3
Debt Indicators (Percent)				
Net external debt / gross domestic product				
Indonesia	45	51	48	53
Korea	6	4	5	4
Thailand	16	13	8	6
Net external debt/exports				
Indonesia	165	181	171	185
Korea	16	12	16	12
Thailand	42	33	19	15
Debt service/exports				
Indonesia	35	31	28	32
Korea	12	11	12	9
Thailand	16	17	15	14

Sources Asian Development Bank, *Asian Development Outlook*, 1992, International Monetary Fund, *International Financial Statistics*

Note NR=no rating

† Assessments published annually in September Lowest risk = 100

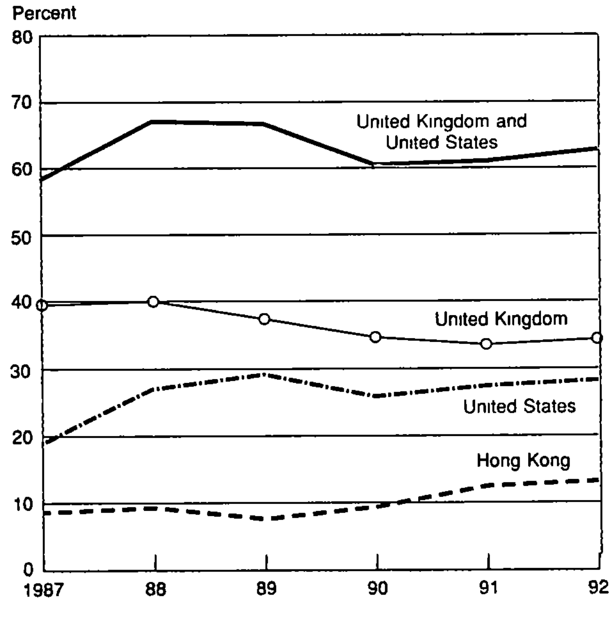
The Nikkei and Pacific capital markets

Life insurance companies, Japan's largest institutional investors, dominate Japanese investment in foreign securities In 1988, life insurers held over a third of all foreign securities in portfolios permitted to take long foreign currency positions.[14] Foreign securities became an increasingly important portion of Japanese life insurers' portfolios over the 1980s, especially after regulations controlling the share of foreign securities in total flows and stocks were lifted or ceased to bind in 1986 (Chart 10) By end-1989, the share of foreign securities in insurers' portfolios reached about 15 percent of total assets or more than $150 billion. Since 1989, however, the share of foreign securities

[14] Juann Hung, Charles Pigott, and Anthony Rodriguez, "Financial Implications of the U S External Deficit," Federal Reserve Bank of New York *Quarterly Review*, vol 13-14 (Winter-Spring 1989), p 39

Chart 6

Asset Shares of Japanese Banks' Overseas Branches



Sources Bank of England, Bank of Japan, Commissioner of Banking, Hong Kong, Federal Financial Institutions Examination Council, Reports of Condition and Income in life insurers' portfolios has declined, falling to less than 10 percent of the total in 1993 In the wake of deregulation, two major factors have influenced Japanese life insurance companies' demand for foreign securities: yield differentials between Japanese and foreign securities and changes in insurers' own wealth resulting from the boom and bust in Japanese asset prices

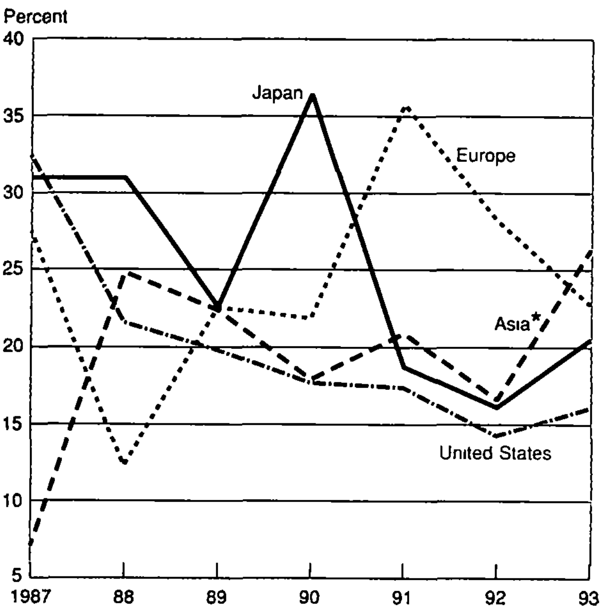
The declining importance of foreign securities in life insurance companies' portfolios after 1989 corresponds in part to a narrowing of the differential between Japanese and foreign interest rates To be sure, the effect of interest rate differentials on the purchase of foreign securities became increasingly complex in the 1980s as insurers learned to put on and take off short-term hedges against the foreign exchange risk of their foreign bond holdings Still, when the Bank of Japan in late 1989 tightened monetary policy in order to bring down asset prices in Japan, the gap between Japanese and foreign bond yields narrowed (Chart 11) and the purchase of foreign securities became less attractive The differential between Japanese and U.S. rates narrowed from about 3¼ percentage points in 1986-89 to just over 1½ in 1990-93 Although wider, the differential between Japanese yields and a weighted average of various foreign bond yields—where the weights reflect Japanese life insurers' foreign portfolio in 1991—also narrowed by about 1½ percentage points An analysis of the determinants of capital outflows from Japan has shown that a smaller yield pickup, unless fully offset by expectations of less yen appreciation or perceptions of lower risk, should reduce the purchase of foreign assets by Japanese institutional investors [15]

The wealth of Japanese life insurance companies also took a turn after 1989 The rise in Japanese equity prices in the 1980s made insurers, with more than their net worth invested in equities, increasingly wealthy The market value of their assets expanded rapidly relative to the present value of their commitments to policyholders The subsequent decline of equity prices since 1989 has reversed this process

[15] Kazuo Ueda, "Japanese Capital Outflows," *Journal of Banking and Finance*, vol 14 (November 1990), pp 1077-1101

Chart 7

Arrangers of Asian Loans by Country or Region of Bank

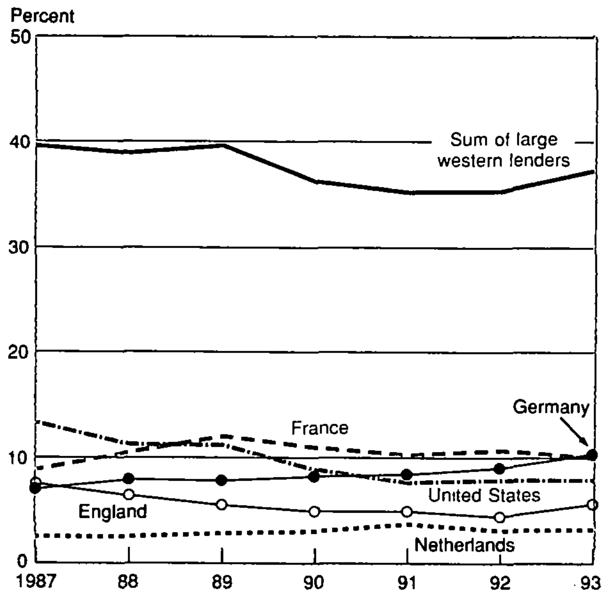


Source *International Financing Review*

*Asia comprises Indonesia, Hong Kong, Korea, Malaysia, Taiwan, and Thailand

Chart 8

Share of North Atlantic Banks in BIS Claims on Asia



Sources Bank of England, Banque de France, Bundesbank, De Netherlandsche Bank, Bank for International Settlements; Federal Financial Institutions Examination Council, Reports of Condition and Income

Notes Asia comprises Indonesia, Korea, Malaysia, Taiwan, and Thailand The 1993 observation is for September for England, Germany, and the United States, but June for France and the Netherlands

Under normal circumstances, financial intermediaries' portfolio behavior depends on their wealth[16] When wealth declines, managers become less tolerant of risk if they seek to avoid distress and have only limited access to new equity Thus, an intermediary would be motivated to substitute low-risk assets such as government paper for high-risk assets such as corporate loans Japanese life insurers, faced with the loss of stock market wealth, would choose to hold fewer risky foreign assets

This logic would explain why Japanese insurers invested more of their portfolio in foreign securities as their wealth rose and less as their wealth fell But it cannot explain why insurers chose to concentrate their portfolio in high-coupon foreign bonds (Table 4) Among the companies' foreign bond holdings, U S , Canadian, and Australian bonds—all with relatively high coupons in the 1980s—are overrepresented Of the European assets, relatively high-coupon French and ECU bonds claim a disproportionately larger share than the bonds of interest-rate-anchor Germany (particularly in 1991)

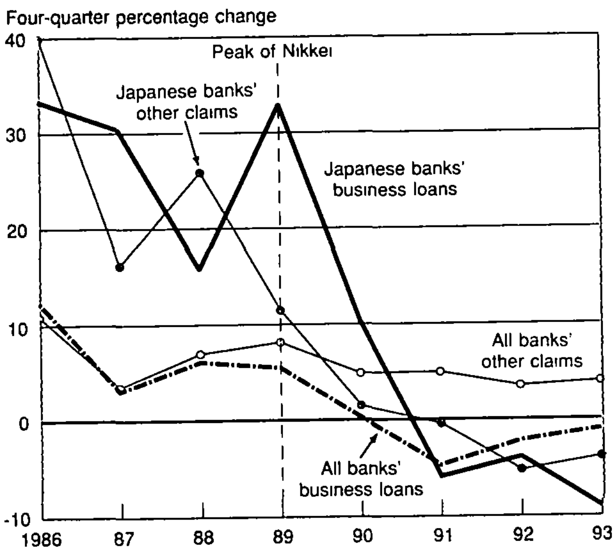
The appetite of Japanese life insurance companies for high-coupon foreign bonds resulted from the interaction of the property rights and management incentives of mutual life insurance companies with Ministry of Finance regulation The mutual ownership of most Japanese life insurance companies gave managers discretion over the increasing wealth of their firms in the late 1980s The managers, particularly those on the sales rather than the investment side of the organization, favored growth To attract the new policyholders who would help the companies grow, managers were inclined to draw on this wealth to offer higher returns Each year the returns promised by the insurers to buyers of annuities and whole life policies are negotiated by the firms' managers and the regulators in the Ministry of Finance[17] The Ministry of Finance has sought to maintain the stability and net worth of insurers by restricting payments to policy-

[16] Bruce Greenwald and Joseph Stiglitz, "Monetary Policy and the Theory of the Risk-Averse Bank," Federal Reserve Bank of San Francisco, Working Paper in Applied Economic Theory, May 1993

[17] Individual annuities have been the fastest growing business line for life insurers, though whole life policies remain the largest insured amount The Life Insurance Association of Japan, *Life Insurance Business in Japan*, 1992-93, p 3

Chart 9

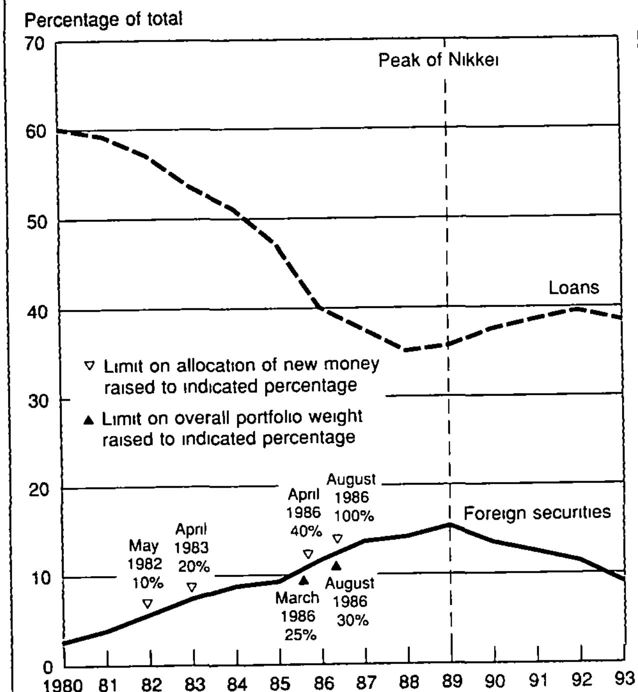
Growth of Bank Claims in the United States



Source Federal Financial Institutions Examination Council, Reports of Condition and Income

Chart 10

Asset Shares of Japanese Life Insurers and Constraints on Foreign Asset Shares

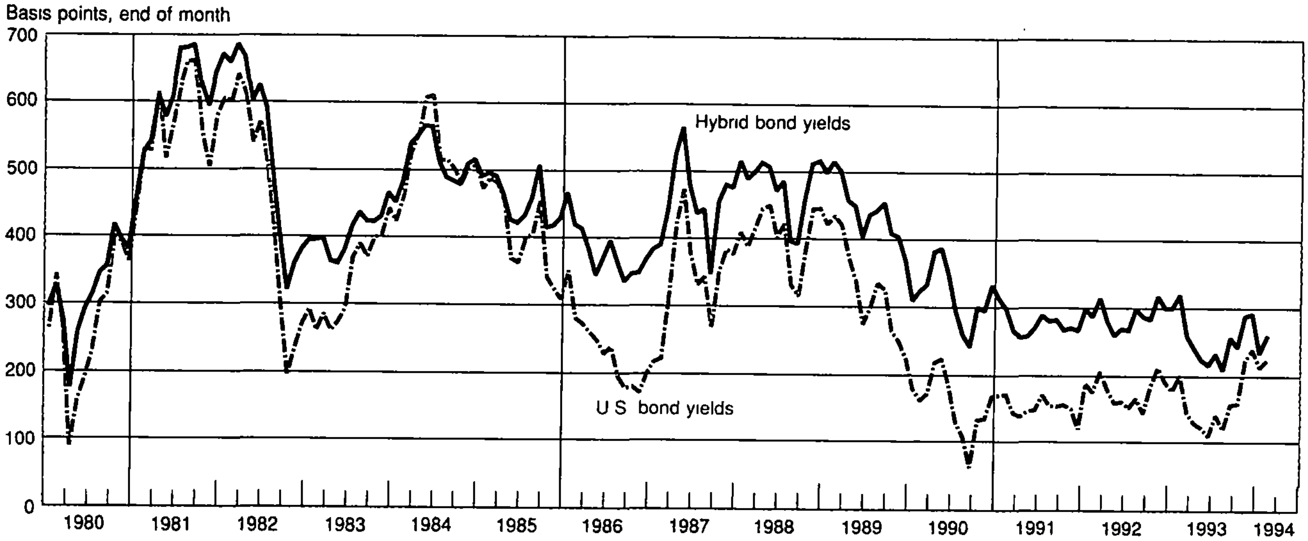


Sources Bank of Japan, Richard C Koo, "Japan and International Capital Flows," Nomura Research Institute, April 1992

Note. Chart shows the progressive easing of constraints on the allocation of insurers' portfolio to foreign assets From 1971, regulation limited overall portfolio weight on foreign assets to 10 percent

Chart 11

Yield Pickup for Japanese Investors in Foreign Bonds



Sources Central banks of Australia, Canada, Denmark, France, Germany, Spain, the United Kingdom, and the United States

Note Hybrid yield represents an average of ten-year bond yields with weights taken from Japanese life insurers' portfolio as of September 1991 Thus, U S bond yields are weighted 0 39, Canadian, 0 25, Australian, 0 13, French, 0 1, German, 0 04, British, 0 07, Spanish, 0 01, and Danish, 0 004

Table 4

The Distribution of the Foreign Assets of Japanese Life Insurance Companies

Percent

	Bonds			Equities			Bank Deposits		
Currency	1991	1992	1993	1991	1992	1993	1991	1992	1993
United States	32	35	38	68	64	65	71	83	94
Canada	21	24	17	2	4	4	6	5	2
Australia	10	10	7	4	5	6	7	3	1
Subtotal	63	69	61	73	73	74	83	91	97
Asia	0	0	0	2	1	2	0	0	0
Europe	27	23	30	25	25	23	16	8	2
United Kingdom	5	3	4	8	8	8	10	7	1
Germany	3	6	11	4	5	5	1	1	1
France	9	7	12	5	5	4	0	0	1
European Currency Unit (ECU)	6	4	2	4	4	4	4	0	0
Spain	1	1	0	1	1	0	1	0	0
Other	3	2	1	3	2	2	0	0	0
Other	11	9	8	0	1	1	0	0	0
Total (Trillions of Yen)	11 5	10 6	7 9	5 7	6 2	6 3	5 3	5 2	6 9

Source Richard C Koo, "Japan and International Capital Flows," Nomura Research Institute, April 1992, 1993, and 1994

Note Data are for September and may not add to 100 owing to rounding holders to recurring income, that is, by prohibiting capital gains from being paid out directly[18] Capital gains could only be realized to offset capital losses

The ability of life insurers to invest in foreign securities provided the opportunity to convert capital gains into recurring income A higher interest rate on a security denominated in one currency relative to a similar security denominated in another currency is generally offset by a loss on the first currency when exchanged into the second at maturity[19] Thus, high-coupon foreign bonds, such as Australian treasuries, could permit attractive annuities to be marketed In addition, if the Australian dollar were to fall against the yen, the capital loss could be offset by realizing a gain on domestic equity Prudential rules intended to bottle up equity and to discourage speculation led life insurers to become "coupon hogs"[20]

The interaction of wealth and regulation not only explains the composition of insurers' assets but also the acceleration of asset growth in the 1980s and the deceleration in the 1990s When unrealized capital gains on Japanese equities abounded in the 1980s, insurers and the Ministry of Finance could negotiate aggressive yields for policyholders that attracted a rapid inflow of funds Since 1990, lower wealth and unrealized capital gains have led to less aggressive yield-setting on insurance products, a shift that has slowed the flow of funds from Japanese households to private insurers (Chart 12)[21]

The two channels through which reduced wealth has influenced Japanese insurers' foreign investment can be laid out schematically (Figure 3). A smaller cushion of unrealized capital gains has led to less tolerance for risk and thus a lower portfolio weight on foreign securities A smaller cushion of capital gains has also led to more modest promised yields, slower growth of liabilities, and thus slower growth of assets, including foreign assets These two effects have reinforced each other to produce lower investment in foreign securities in the 1990s.

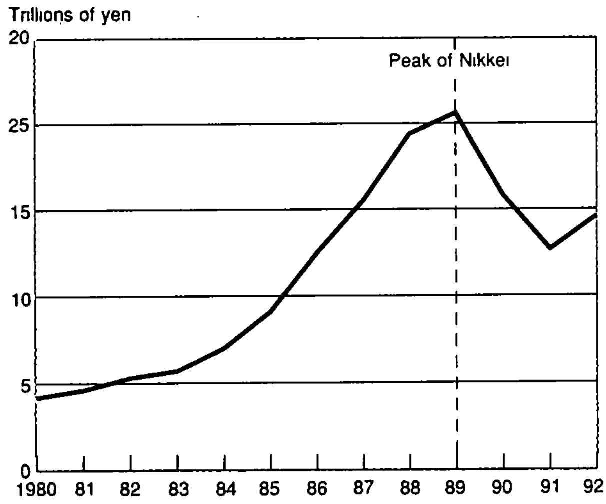
In summary, the role of wealth in Japanese life insurers' propensity to invest abroad differed across three periods in the fourteen years from 1980 to 1993 Through 1985, regulation governing either the share of new investments allotted to foreign securities or the share of foreign securities in the total portfolio constrained the insurers (Chart 10) From 1986 the regulation did not bind Rather, exchange losses—realized, unrealized, and feared—warred with the incentives to reach for yield to determine the portfolio weight on foreign securities. With overall wealth rising through 1989, the portfolio invested in foreign securities reached about 15 percent in 1989 Thereafter, lower wealth and narrowed interest rate differentials reduced the fraction risked in foreign securities.

The impact of the collapse of Japanese asset prices on foreign investment in securities can be verified in individual markets Overseas investment by Japanese life insurers has been concentrated in a few markets Two-thirds to three-quarters of all investment in foreign securities by life insurers has been in the Pacific bond markets with high nominal yields: the United States, Canada, and Australia (Table 4)

The retrenchment by life insurance companies and other Japanese institutions is particularly evident in these three

Chart 12

Annual Increase in Household Claims on Private Insurance Companies in Japan



Source Bank of Japan

Note: Data are for fiscal years ending in March

[18] Richard C Koo, "International Capital Flows and an Open Economy The Japanese Experience," in Shinji Takagi, ed , *Japanese Capital Markets* (London Blackwell, 1993), p 84

[19] Irving Fisher, *The Theory of Interest* (New York Macmillan, 1930)

[20] The same incentive led Japanese life insurers to engage in dividend capture tactics They would buy the shares of companies about to pay a dividend and then immediately sell the shares, realizing both income and a capital loss on the shares See George Anders, "Japanese Players Grab Big Dividend Income in Latest Market Ploy," *Wall Street Journal*, May 20, 1988, p C1, and William Power and Michael R Sesit, "Mania for Dividend Capture Subsides," *Wall Street Journal*, May 12, 1989, p C1

[21] Although the liberalization of time deposits in 1989 reduced the share of the total flow of household funds to insurers in favor of banks, since 1989 Japanese banks have widened their margins between deposit and loan rates If life insurers were competing only against Japanese banks for household savings, the insurers' relatively lower yields might not translate into slower balance sheet growth The government postal savings system has offered competitive rates, however, leading to a growth of public intermediation at the expense of private

bond markets The retreat occurred immediately after asset prices peaked in Japan (Chart 13) In all three markets, Japanese net purchases declined in 1990, and in the United States, the Japanese became net sellers of bonds in that year In Australia, the Japanese sold securities in 1990, although the lack of disaggregated data obscures whether bond or equity markets bore the brunt of the sales The recovery in 1993 in purchases of U S bonds, set against the substantial liquidations of Canadian and Australian bonds last year, suggests considerable switching among dollar bond markets.

Japanese sales of foreign bonds in the first quarter of 1994 (Chart 1) also help put into perspective the 1993 purchases of U S bonds, which were concentrated in the fourth quarter Japanese mutual funds (securities investment trusts), banks, and other investors with short horizons bought dollar bonds in the fourth quarter only to experience losses and presumably to liquidate their positions in the first quarter.[22] Moreover, this sharp swing only exaggerates a quarterly pattern observed since 1990 that can be interpreted as showing the diminished role of long-term investors such as life insurers [23]

Measures of overall Japanese activity in the U S. bond market show a general retreat since 1989. Gross Japanese transactions in U.S. bonds have declined from 1989 through 1992 and are currently running below 1989 levels (The emergence of substantial investment affiliates in the United States, however, suggests that some of the activity has just been domesticated.) Meanwhile, all foreign transactions have risen significantly since the Japanese-led decline in 1990 The biggest declines in Japanese activity in 1990 and in 1992 coincide with sharp Nikkei falls

The data from the Canadian bond market show a similar pattern Japanese transactions stopped growing in 1989 and began to decline in the first half of 1992. (Much of Japanese involvement may be obscured by participation through other countries)

Japanese activity in U S equities does not show a break in 1989 Japanese transactions peaked in 1988 as the Japanese sold equity after the October 1987 break Nevertheless, while other foreigners have regained their appetite for U S equities in the last year and a half, the Japanese

[22] Richard C Koo, "Japan and International Capital Flows," Nomura Research Institute, April 1994, p 20 To the extent that these investors hedged their currency exposure (and banks do so as a matter of course when buying foreign bonds for their own account), their investment and behavior was like that of many U S investors who had bought bonds with borrowed money

[23] "Saikin ni Okeru Naigai Shikin Furo no Doko [Recent International Capital Flows]," *Nihon Ginko Geppo* [Bank of Japan *Monthly*], May 1994, pp 43-45

Figure 3

Effect of Drop in Nikkei on Foreign Securities Markets

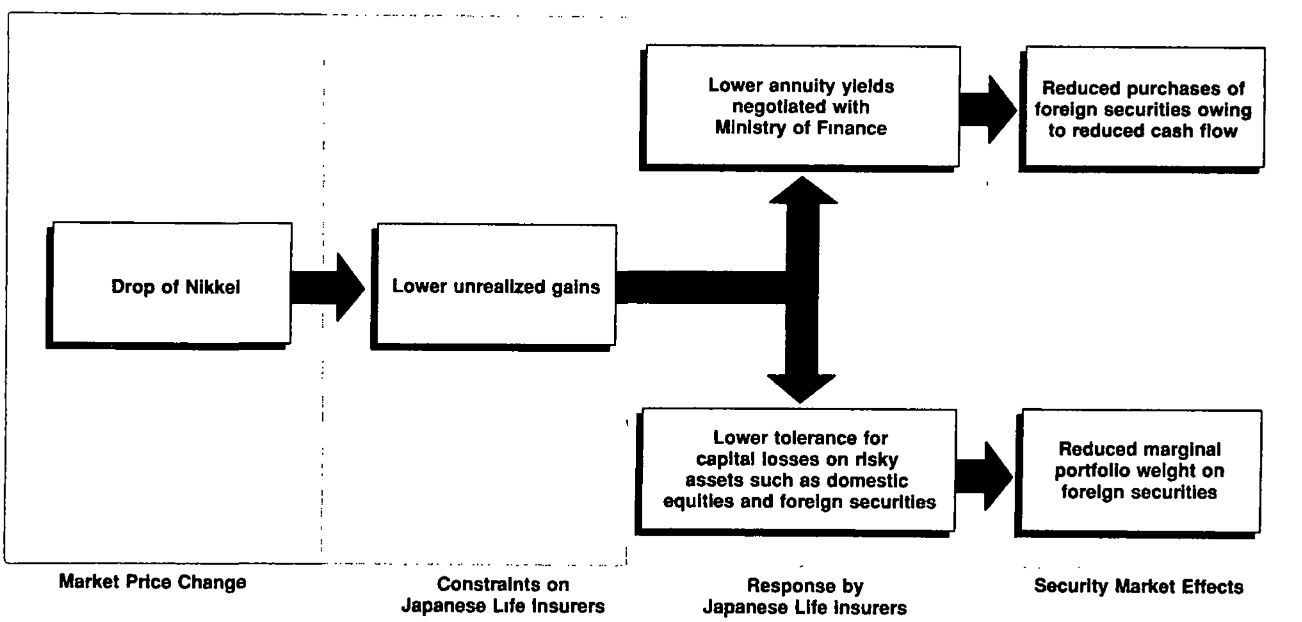
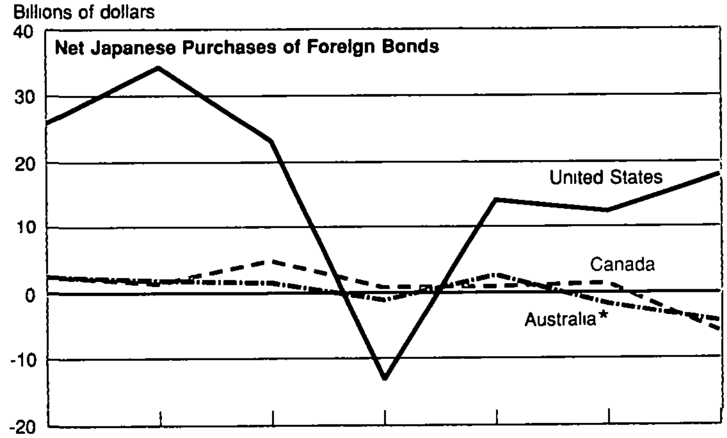


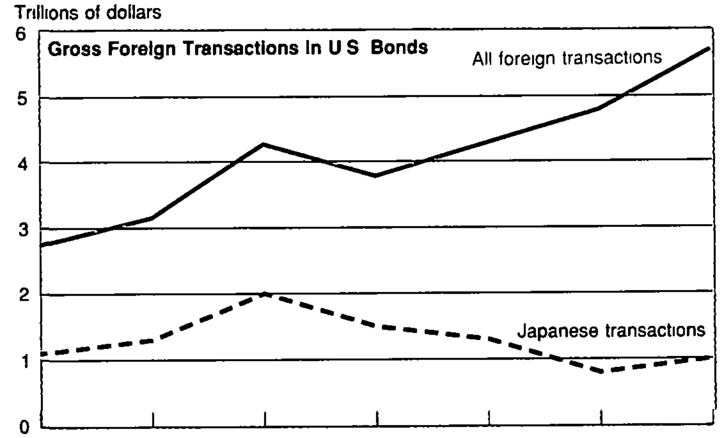
Chart 13

Declining Japanese Participation in Foreign Securities Markets

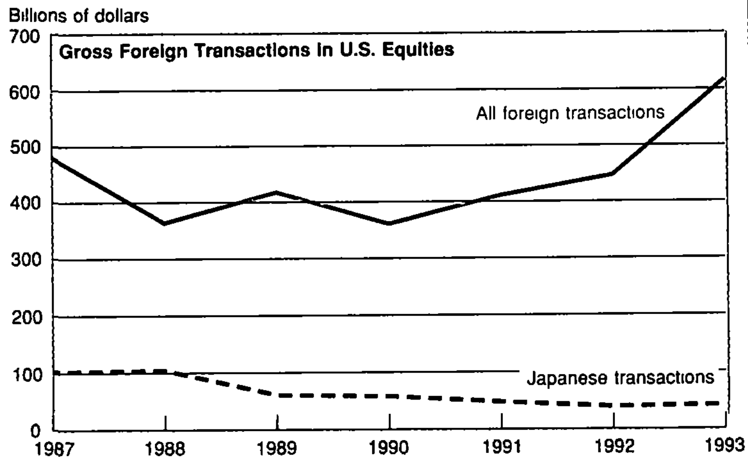
Private Japanese investors reduced their net purchases of U.S., Canadian, and Australian bonds from an average annual rate of 33 billion dollars in 1987-89 to 6 billion dollars in 1990-93.



Japanese transactions in U.S. bonds made up almost half of all foreign transactions in 1989 but have since fallen to less than one-fifth.



Unlike other foreign investors, Japanese investors never resumed their trading in U.S. equities after the 1987 crash.



Sources Japanese Ministry of Finance, U S Treasury, Statistics Canada

*Australian figures are for bonds and equity have continually reduced their activity.

Conclusions and implications

When the world's leading creditor country experiences a recession and cuts its long-term capital outflows, risks to the global economy may arise[24] In the present case, the danger would be that even as world exports to Japan level off, borrowers dependent on credit from Japan might experience a sudden loss of access to credit. In fact, however, the strategies of Japanese banks, the portfolio behavior of Japanese insurers, and fortuitous timing have all eased the adaptation of Japan's debtors to this new state of affairs.

In the interbank markets, the rapid growth of placements has tailed off as Japanese banks have restructured their balance sheets to reflect their new wealth position under the Basle Accord constraints. Fast-growing Asian countries that have increasingly relied on interbank markets to finance their external deficits have had to adjust to reduced liquidity in this market. Banks from deficit countries now have the opportunity to raise their profile in the interbank market, and banks from surplus countries in the region can perform some of the intermediation services heretofore offered by Japanese banks.

In the market for bank credit to Asian sovereigns and companies, Japanese banks have sought to clear higher capital cost hurdles by widening spreads. The terms paid by flagship borrowers from Indonesia, South Korea, and Thailand appear to have stiffened accordingly

Japanese banks' difficulties might have proved more troublesome for classes of borrowers that enjoyed no ready substitute source of credit. But the most likely candidates, marginal Asian corporations and banks, have actually benefited from the Japanese banks' revised international strategies. Moreover, the decline of U.S dollar interest rates has meant that the widening of intermediation margins has only partially offset favorable developments in the cost of debt capital In the U.S. commercial loan market, asynchronous business cycles across the Pacific have proved stabilizing. On this evidence, it is hard to argue that Japanese banks aggravated any U.S. credit crunch in 1990 (Chart 11) In the years ahead, some Japanese banks are planning to increase their lending in the United States, in part because the rise of the yen has lowered the value of their foreign assets in relation to capital.

In capital markets, the loss of wealth by Japanese institutional investors curbed their appetite for exchange risk and slowed their activity in bond markets in New York, Toronto, and Sydney Japanese institutional investors' habit of shunning credit risk even as they took foreign exchange risk, however, limited the effect of their reduced investment abroad (Table 4) Even within the fairly safe industrial country markets, Japanese investors preferred high-quality securities. Thus, according to the U S. Treasury's 1992 benchmark survey, Japanese investors held three-quarters of their portfolio of long-term U S. securities in safe Treasuries and agencies. As a result, the drop-off in Japanese flows to the bond market tended to work itself out in general interest rate levels rather than depriving particular borrowers of their access to credit. At most, the retreat of Japanese investors from the U.S., Canadian, and Australian bond markets contributed to the lags between the decline of short-term rates and the decline of long-term rates in these capital markets in the early 1990s, and this lag slowed the recovery of housing and other interest-sensitive sectors

The rise in long-term outflows from the United States has also cushioned the impact of the Nikkei's decline on Asian countries The flood of money out of U S. institutional portfolios into equity markets around the Pacific has tended to lower the cost of equity there It may seem odd that the United States, running a current account deficit of more than $100 billion, is investing in Pacific capital markets. A considerable share of the financing for such investments is coming out of the international interbank market, which in turn is experiencing a rapid influx of Japanese funds (Table 1). In effect, U.S. institutional investors are supplementing Japanese institutions' own recycling of the Japanese current account surplus.

[24] Charles P Kindleberger, *The World in Depression* (Berkeley University of California Press, 1973)