# Japanese Banking Problems: Implications for Lending in the United States

*Joe Peek and Eric S. Rosengren*

*Professor of Economics, Boston College, and Visiting Economist, Federal Reserve Bank of Boston; and Vice President and Economist at the Bank, respectively.* *Valuable research assistance was provided by Carol Greeley.*

Japanese banking problems have received substantial attention worldwide. Critics of Japanese policymakers have argued that problems at Japanese banks threaten the Japanese economic recovery. They also point out that because Japanese banks have been among the most active in expanding their presence beyond their domestic borders, they could play a major role in prolonging the financial problems in many other Asian and emerging market countries, as well.

Fueled by a high saving rate, active exporting firms, and a booming stock market, Japanese banks expanded aggressively worldwide during the 1980s. By 1988, all of the 10 largest banks in the world were Japanese, with a significant presence in Southeast Asia, Europe, Latin America, and the United States. The penetration into U.S. domestic markets was particularly striking. By the early 1990s, Japanese banks were the dominant foreign banks in the United States, accounting for about 18 percent of all commercial and industrial loans to U.S. addresses.

In the 1990s, however, the tide turned. Japanese banks experienced a significant diminution of capital as a result of sharp declines in the Japanese stock market and substantial increases in nonperforming loans. Increasingly constrained by international capital requirements, Japanese banks began to shrink their international operations while insulating their domestic lending operations. The reduction in foreign lending since 1990 has been substantial, with the Japanese share of the U.S. commercial and industrial lending market falling from roughly 18 percent in late 1991 to under 14 percent by the first quarter of 1998. This decline is likely to continue, as Japanese banks shrink further in order to satisfy capital requirements. Not only have Japanese banks reduced U.S. lending, but they also have announced major restructurings of their U.S. operations, including sales of some of their U.S. subsidiaries and consolidations among their U.S. branches and agencies.

Many of the actions of Japanese banks are being influenced by changes in government policies towards them. In March of 1998 major

Japanese banks requested capital infusions from the government. As a condition for receiving the government funds, the banks were required to describe their plans for restructuring. Embedded in many of these proposals were dramatic decreases in their global activities. More recently, the Japanese government has committed 60 trillion yen of public funds to address the banking sector's problems, but it has insisted that poorly capitalized banks take remedial actions, including withdrawing from international operations.

*A unique combination of institutional characteristics of the Japanese economy produced a framework particularly suited to transmitting a domestic financial shock to other countries through the behavior of the Japanese banking system.*

Furthermore, the two large banks that failed recently, Hokkaido Takushoku and Long-Term Credit Bank, each announced a cessation of international operations before it was closed or nationalized.

In addition to the plans to shrink operations announced in March 1998, many of the largest banks have subsequently announced withdrawals or plans to withdraw from international activities. For example, Daiwa, Yasuda Trust, Mitsui Trust, and Nippon Credit Bank have all stated that they plan to become purely domestic banks. Thus, while Japanese banks in general have been withdrawing internationally, the most troubled banks have taken the extreme step of completely abandoning their international operations.

This paper examines factors affecting the Japanese banking presence in the United States. In particular, it examines the role that capital requirements played in the decisions by Japanese banks to reduce their lending here. Because U.S. banking markets have been unusually open by international standards, and because of the large penetration by Japanese banks, the experience here provides useful insights into how globally active banks may react in the future to problems in their domestic markets.

The next section describes the dramatic fluctuations in stock market and urban land prices and how sharp declines in these prices could have an effect on other countries through Japanese bank lending. The second section describes the pressures on bank capital ratios resulting from the declines in Japanese asset prices and the response of Japanese banks. The third section describes the importance of lending relationships in Japan and their role in the reduction of Japanese bank lending in other countries. The fourth section describes the implications for U.S. credit markets. The final section discusses some implications of the movement toward more global banking markets.

## *I. Asset Prices and Japanese Bank Behavior*

One of the more dramatic financial events of the second half of the 1980s was the asset inflation in Japan. The subsequent deflation was, perhaps, even more striking. Panel A of Figure 1 shows the extent of the surge in the Nikkei stock index. Even using monthly data that miss the precise peak in the Nikkei, the figure reflects a tripling of the index between January 1986 and December 1989, followed by an equally sharp decline. Panel B shows that the rise and decline in land prices were just as dramatic, with urban land prices tripling and then falling sharply, the peak occurring subsequent to the peak in the Nikkei. Such rapid rises and declines in stock prices and other asset values were unprecedented in Japan.

A unique combination of institutional characteristics of the Japanese economy at that time produced a framework particularly suited to transmitting such a domestic financial shock to other countries through the behavior of the Japanese banking system. Changes in bank regulation in the late 1980s, including the adoption of the Basle Accord which placed greater emphasis on the role of bank capital, made Japanese banks take satisfying capital requirements more seriously, while at the same time codifying the direct impact of fluctuations in stock market values on the level of a bank's capital. Japanese banks are allowed to hold cumulatively large equity stakes in publicly held firms, and the accrued capital gains on these holdings can be included in bank capital; because of this, the dramatic decline in Japanese stock prices reduced bank capital substantially. As a consequence, Japanese banks came under strong pressure to downsize their activities in an attempt to raise capital-to-asset ratios.

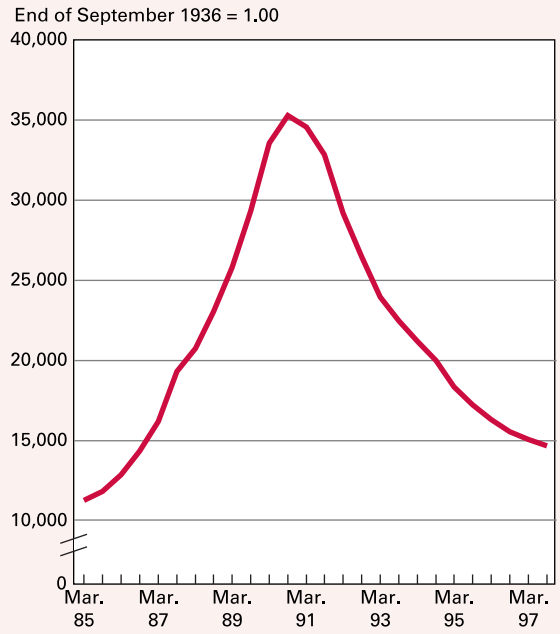
However, the resulting shrinkage was concentrated overseas rather than in their domestic opera-

Figure 1

*A. Nikkei Stock Average*


Source: Tokoyo Stock Exchange.

*B. Japanese Land Price Index*
*Average of Six Largest Cities*




Source: Japan Real Estate Institute.

tions. First, the particularly close relationships that Japanese banks have with their domestic loan customers provide them with a strong incentive to insulate their long-term customers from a reduction in credit availability. Second, the large overseas presence of Japanese banking organizations provided an escape valve for the pressure on them to shrink. By concentrating the shrinkage of operations on overseas rather than domestic lending, Japanese banks mitigated the adverse effects on their domestic customers and transmitted to other countries what was originally a domestic shock.

## *II. Pressure on Capital Ratios and the Japanese Bank Response*

A substantial body of evidence indicates that banks in the United States respond to adverse capital shocks by growing more slowly and, in many instances, shrinking (Bernanke and Lown 1991; Hall 1993; Hancock and Wilcox 1995; Peek and Rosengren 1995a, 1995b, 1995c). While investigators have found a positive relationship for Japanese banks between bank capital and either asset growth (Frankel and Morgan 1992) or bank lending (Kim and Moreno 1994) after the mid 1980s, before then the relationship was much weaker or nonexistent. This is consistent with a change in the regulatory environment in Japan in the mid and late 1980s. Essentially, Japanese banks had not been subject to explicit capital ratio requirements until the mid 1980s. (See Kim and Moreno 1994 for a more detailed discussion.) Rather, the Bank of Japan often controlled bank lending through "window guidance" (Hoshi, Scharfstein, and Singleton 1993).

The Basle Accord, an international agreement that set common standards by which to evaluate capital adequacy, was introduced in 1988. It tried to create a "level playing field" by requiring all internationally active banks to satisfy the same two (minimum) risk-based capital ratios: tier 1 (core) capital must be at least 4 percent of risk-weighted assets; and a broader measure, tier 2 capital, which includes tier 1 capital as well as subordinated debt and revaluation reserves (unrealized capital gains on equity security holdings), must be at least 8 percent of risk-weighted assets.

Despite the greater uniformity in regulation brought about by the Basle Accord, national differ-

ences remain that can have substantial effects on the extent to which the capital constraints are binding. In particular, differences remain across regulators from different nations in the designation of liabilities allowable for tier 1 and tier 2 capital. Furthermore, regulators in different nations have allowed variations in the categories of assets placed in particular risk classifications. (For a more detailed description of these differences, see Scott and Iwahara 1994.) Differences in reserving procedures for possible loan losses can also have a significant impact on reported capital across countries. When nonperforming loans are increasing and collateral values are decreasing, failure to fully reserve for expected loan losses will cause bank capital to be overstated and can reduce the comparability of capital ratios, across time for a given bank (or country) as well as across banks (or countries).

The Basle Accord set the stage for the dramatic fluctuations in Japanese stock prices to have a substantial impact on Japanese bank capital. The Accord contains a provision that allows up to 45 percent of unrealized gains on equity security holdings (also referred to as hidden reserves) to be included in bank capital.[1] These unrealized capital gains can be included in tier 2 capital, so long as tier 1 capital accounts for at least 50 percent of total capital. Thus, unrealized gains on stock market holdings can be utilized only to the extent the bank has sufficient tier 1 capital to maintain its required share of total capital.

*It appears that the sharp rise in Japanese stock prices in the 1980s and the subsequent decline in the 1990s, through their impact on bank capital, strongly affected both the ability and the desire of Japanese banks to expand lending.*

Initially, the rapid growth of Japanese banks was relatively unaffected by the adoption of the Basle Accord. The substantial accrued capital gains on their share holdings, arising from the dramatic rise in Japanese stock prices, gave a boost to their tier 2 capital. Furthermore, higher stock prices enabled Japanese banks to increase tier 1 capital by issuing new equity shares and debt securities at favorable prices, as well as by selling some of their stock holdings in other companies that had substantial unrealized gains. If a bank has substantial unrealized gains that have not been included in its tier 2 capital because of the binding tier 1 share constraint, an increase in tier 1 capital will increase tier 2 capital in a ratio of two to one. Thus, Japanese banks had a strong incentive in the late 1980s to increase tier 1 capital by issuing new equity and/or realizing gains on appreciated assets.

*By concentrating the shrinkage of operations on overseas rather than domestic lending, Japanese banks mitigated the adverse effects on their domestic customers and transmitted to other countries what was originally a domestic shock.*

Japanese banks held approximately 20 percent of Japanese common stock (French and Poterba 1991; Prowse 1990). Thus, the decline in Japanese stock prices, with the Nikkei index losing more than half its value between late 1989 and early 1992, caused a dramatic decline in tier 2 capital. In the early 1990s, the tier 2 risk-based capital ratio of many major Japanese banks, including 7 of the 10 largest banks in the world, temporarily fell below the 8 percent minimum required under the Basle Accord.

Following the extensive decline in Japanese bank capital and the resulting pressure to maintain sufficient capital to meet the Basle Accord requirements, the total assets of Japanese banking organizations declined steadily after 1990, an outcome unprecedented in the postwar period.[2] The slowing in loan growth and the eventual shrinkage of overall banking operations of Japanese banks appear to be consistent with earlier evidence on the response of U.S. banks to adverse capital shocks. Thus, it appears that the sharp

[1] Current U.S. banking restrictions on holding shares in other U.S. firms make this provision of little relevance to U.S. banks.

[2] Frankel and Morgan (1992) report that the first yearly asset decline (5 percent) in Japanese city banks since World War II occurred in 1991.

rise in Japanese stock prices in the 1980s and the subsequent decline in the 1990s, through their impact on bank capital, strongly affected both the ability and the desire of Japanese banks to expand lending.

The effect on bank lending of the decline in Japanese stock prices was exacerbated by the deteriorating quality of bank assets, especially real estate loans. While the problem is widely acknowledged to be serious, the well-known lack of transparency of the Japanese banking system makes it difficult to quantify the bad loan problem. By one estimate (Huh and Kim 1994), bad loans represented about 7 percent of total loans in 1992, well above the official number at that time. However, over time, officially disclosed problem loans have increased dramatically. Using the new expanded definitions of nonperforming loans, disclosed nonperforming loans for fiscal year-end 1997 (March 1998) have risen to 6 percent of total loans.

However, even with the increased transparency provided by the expanded definition, private analysts contend that reported nonperforming loans still substantially understate the problems at Japanese banks. The definition of nonperforming loans was expanded to include loans past due for more than three months (rather than six months) and restructured loans, but Japanese banks continue to make loans that enable some customers to make interest payments, in order to keep their outstanding loans current (evergreening) and thus not be added to the bank's nonperforming loan category. Many other borrowers with serious problems have also avoided the nonperforming loan classification so far, but they may not be able to hold out much longer as the Japanese economy continues to falter.

*Japanese banks have been slow to address their problems by writing down loans and adding to loan loss reserves, with the result that reported capital ratios have overstated their financial health.*

Japanese banks have been slow to address their problems by writing down loans and adding to loan loss reserves, with the result that reported capital ratios have overstated their financial health. The timing of both the write-down of bad loans and the associated additions to loan loss reserves can be managed by banks and by regulators, as was done in many countries during the Third World debt crisis. The pressure on Japanese banks to shrink risk-weighted assets to maintain their risk-based capital ratios above the Basle Accord minimums is unlikely to ease any time soon.

Not only are Japanese banks underreserved relative to the current level of reported problem loans, but total nonperforming loans continue to mount. In addition, these well-known problems are increasing operating costs, as Japanese banks now must pay a premium over the rates paid by their U.S. and European competitors in the interbank market (Peek and Rosengren 1998b). Because Japanese banks have focused on low-margin but high-volume businesses, this increased cost of raising funds has made many of their operations unprofitable. Unless the Japanese economy and stock market make a sharp U-turn, Japanese banks will continue to contract their activities in overseas markets through substantial declines in their overseas lending.

## *III. Importance of Lending Relationships in Japan*

Much valuable information about the performance and prospects of many firms is not publicly known. The resulting informational advantage that borrowers have relative to lenders makes publicly traded credit instruments, such as bonds and commercial paper, imperfect substitutes for bank loans as a source of credit for many firms, especially smaller firms where most information is private. Because such firms are opaque, perhaps because they do not issue publicly traded securities and thus are not required to make filings with the Securities and Exchange Commission, are too small to justify the attention of analysts, or are relatively young firms with little track record, lenders must collect and evaluate information on potential loan customers and then monitor borrowers after loans are made. The high cost of such an investment in information makes long-term bank lending relationships valuable. Banks acquire much of their private information through financial relationships, in particular through repeated lending and other banking transactions. In this way, over time, a bank can overcome many of the asymmetric information problems of lending (see, for example, Stiglitz and Weiss 1981).

Thus, imperfect information can give rise to a special role for bank loans. Even though the United States has large, liquid capital markets, lending relationships have been found to be important. While such relationships are (not surprisingly) most important for small firms (Petersen and Rajan 1994), banking relationships have been shown to be valuable even for larger firms that do have access to national credit markets (Slovin, Sushka, and Polonchek 1993; James 1987).

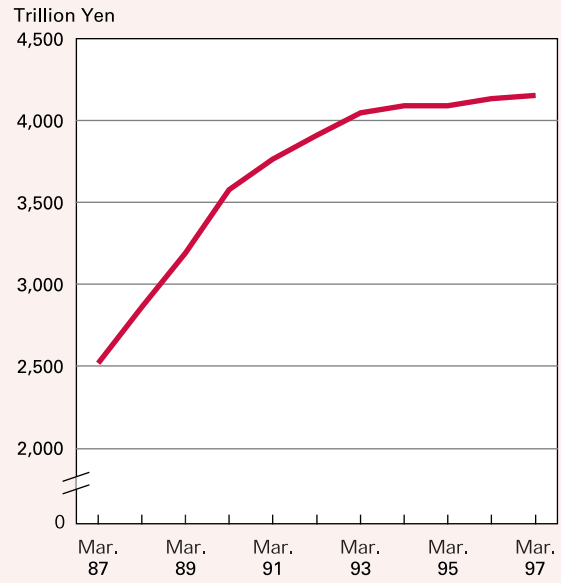
One might expect lending relationships to be even more important in a bank-oriented country such as Japan, compared to a more market-oriented country such as the United States. Much of the industrial organization of Japan is built around the "main bank" system that serves as the core of keiretsus, groups of firms closely tied together through product-market relationships as well as through cross-holdings of one another's equity. Bank lending relationships take on added importance because historical restrictions on the corporate bond market in Japan (which have been eased recently) meant that most of the financing needs of Japanese firms were met by bank loans. For firms in a keiretsu, most bank credit comes from the bank(s) in its group.

An important characteristic of Japanese economic structure is that the main bank plays a much larger and more crucial role than simply serving as a source of credit. Often current or former bank employees are placed in key management positions or on the boards of directors of other firms in the bank's keiretsu. These relationships enable the bank to monitor more easily the firms to which it lends. Perhaps even more important is the role of the main bank when one of its group members becomes financially distressed. Essentially, the main bank has an implicit contract to aid the firm, as well as an incentive to do so to protect its own reputation. Such aid may take the form of renegotiating the troubled firm's debt or overseeing the restructuring of the firm (Hoshi, Kashyap, and Scharfstein 1990). Furthermore, because Japanese banks tend to take equity stakes in those firms to which they lend (Prowse 1990), main banks have an added financial interest in assisting troubled firms in which they have both debt and equity exposures.

Research on lending relationships in Japan has provided evidence that supports the importance of such relationships. First, a firm's investment is affected by the health of its main bank (Gibson 1995; Kang and Stulz 1998). Second, keiretsu members and nongroup members with a strong main bank relationship are affected less by financial distress or tight credit conditions than other nongroup members (Hoshi, Kashyap, and Scharfstein 1990, 1991; Hoshi, Scharfstein, and Singleton 1993). In fact, city banks responded to the binding capital constraints caused by the sharp decline in Japanese stock prices by reducing both lending to and stock holdings of firms with which they did not anticipate having a continuing long-term relationship (Frankel and Morgan 1992).

Figure 2

*Domestic Lending by Japanese Banks*




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

The evidence in Figure 2, which shows the overall loan growth for domestic operations of Japanese banks from 1987 to 1997, supports the view that close lending relationships made it difficult for Japanese banks to reduce credit availability to their domestic customers. Even though Japan fell into a prolonged recession in the early 1990s, domestic loan growth at Japanese banks continued throughout the period, albeit at a slower rate after the sharp declines in Japanese asset values. In contrast, overseas lending by branches of Japanese banks exhibited a much sharper reversal, growing on average twice as fast as domestic lending during the late 1980s before slowing and reaching a peak in 1992. The subsequent decline in loans overseas occurred even though the economic conditions were good in many of the foreign markets

most important for Japanese banks, with the United States recovering from its recession in the early 1990s and GDP growth in Asia remaining strong until 1997.

That declines in lending were concentrated in overseas rather than domestic operations is consistent with Japanese banks valuing historical lending relationships at home more than those in more recently established foreign markets. While some of the decline in overseas loans, measured in yen, can be explained by the appreciation of the yen during this period, the extent of the decline suggests that Japanese banks improved their capital ratios in part by shrinking their large overseas presence. Thus, the large overseas operations of Japanese banking organizations allowed Japanese banks to insulate domestic customers from much of the shrinkage that was required to restore capital ratios.

*An important characteristic of Japanese economic structure is that the main bank plays a much larger and more crucial role than simply serving as a source of credit.*

## *IV. Implications for U.S. Credit Markets*

While Japan had many large banks historically, it was only in the past decade that they came to dominate the list of the world's largest banks. As recently as 1980, only one Japanese bank, Dai-Ichi Kangyo Bank Ltd., was among the world's 10 largest banking organizations (Table 1). However, with a booming stock market, low domestic interest rates, and a strong yen, Japanese banks expanded aggressively during the late 1980s. By 1988, all of the world's 10 largest banking organizations were headquartered in Japan. Despite the sharp decline in the Nikkei and asset shrinkage at many Japanese banks in the early 1990s, the 10 largest banking organizations in the world, and 13 of the 15 largest, were still headquartered in Japan as of the end of 1994. However, since 1994, bank consolidation has continued in the United States and Europe, while Japanese banks have retrenched. As a result, only seven of the 15 largest banks in 1997 were Japanese.[3]

The aggressive expansion of Japanese banks in the late 1980s included greater penetration of foreign markets, in part because of the opportunities provided by these markets and in part because of Japanese regulatory actions that encouraged the internationalization of Japanese finance (Frankel and Morgan 1992).[4] In particular, Japanese banking organizations made significant inroads into U.S. banking markets. By 1991, U.S. branches and subsidiaries of Japanese banking organizations accounted for approximately 18 percent of all commercial and industrial (C&I) loans to borrowers located in the United States (Figure 3). While Japanese banks initially may have expanded U.S. operations in order to serve Japanese customers that were opening or expanding operations in the United States, by the late 1980s they were actively expanding their business with U.S.-based customers (Seth and Quijano 1991; Nolle and Seth 1995), with their business lending in the United States growing much more rapidly than Japanese external trade (Terrell 1993).[5] However, with the retrenchment that followed the fall in the Nikkei, Japanese banking organizations saw their share of the U.S. C&I loan market decline.

Other foreign banking organizations did not cut back their operations in the U.S. credit markets in the same way as the Japanese banks. The Japanese share of foreign banking activity in the United States peaked in 1990, when Japanese banks accounted for over 60 percent of U.S. commercial and industrial loans by foreign banks and over 50 percent of the U.S. banking assets held by foreign banking organizations (Figure 4). The subsequent decline reflects both the decline in the U.S. operations of Japanese banks and an increase

[3] While much of the dramatic increase and subsequent shrinkage of the Japanese bank presence among the world's largest banks is attributable to their growth and subsequent retrenchment, in part it reflects the large swings in the value of the yen. The value of the yen relative to the U.S. dollar rose dramatically between 1990 and mid 1995 and then declined just as sharply.

[4] One intent of those developing international regulations for banks was to limit any competition among regulators of different nations that could result in a lowering of capital standards, in an attempt to provide competitive advantages for their own internationally active banks. In fact, a key motivation for many involved in establishing the Basle Accord was to slow the aggressive expansion of Japanese banks, which included substantial penetration of foreign markets (see, for example, Frankel and Morgan 1992; Sugahara 1994).

[5] Seth and Quijano (1991) show that in the early 1980s as much as three-fourths of Japanese branch lending in the United States was to Japanese firms, but by 1989 Japanese firms accounted for no more than two-fifths of Japanese branch lending in the United States.

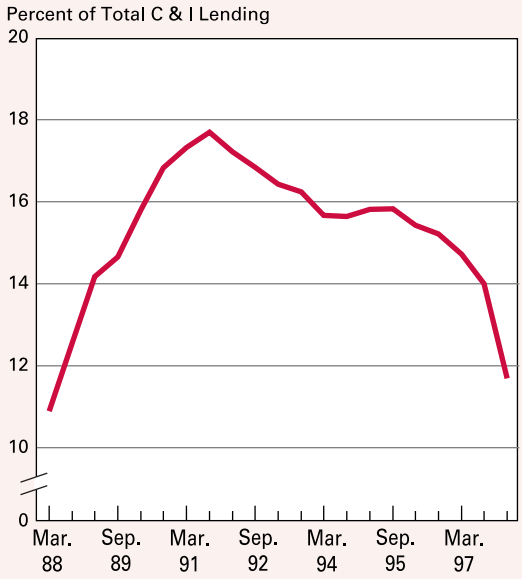
Table 1
*15 Largest World Banking Organizations, Based on Total Assets*

| | 1980 | | 1988 | | 1994 | | 1997 | |
|---|---|---|---|---|---|---|---|---|
| Rank | Name | Country | Name | Country | Name | Country | Name | Country |
| 1 | Citicorp | United States | Dai-Ichi Kangyo Bank, Ltd. | Japan | Sanwa Bank, Ltd. | Japan | Bank of Tokyo-Mitsubishi, Ltd. | Japan |
| 2 | Banque Nationale de Paris | France | Sumitomo Bank, Ltd. | Japan | Dai-Ichi Kangyo Bank, Ltd. | Japan | Deutsche Bank AG | Germany |
| 3 | Bank America Corp. | United States | Fuji Bank, Ltd. | Japan | Fuji Bank, Ltd. | Japan | Sumitomo Bank, Ltd. | Japan |
| 4 | Credit Agricole Mutuel | France | Mitsubishi Bank, Ltd. | Japan | Sumitomo Bank, Ltd. | Japan | Credit Suisse Group | Switzerland |
| 5 | Credit Lyonnais | France | Sanwa Bank, Ltd. | Japan | Sakura Bank, Ltd. | Japan | HSBC Holdings, Plc. | United Kingdom |
| 6 | Societe Generale | France | Industrial Bank of Japan, Ltd. | Japan | Mitsubishi Bank, Ltd. | Japan | Dai-Ichi Kangyo Bank, Ltd. | Japan |
| 7 | Barclays Bank, Ltd. | United Kingdom | Norinchukin Bank | Japan | Norinchukin Bank | Japan | Sanwa Bank, Ltd. | Japan |
| 8 | Deutsche Bank | Germany | Tokai Bank, Ltd. | Japan | Industrial Bank of Japan, Ltd. | Japan | Credit Agricole Mutuel | France |
| 9 | National Westminster Bank, Ltd. | United Kingdom | Mitsui Bank, Ltd. | Japan | Mitsubishi Trust & Banking Corp. | Japan | Fuji Bank, Ltd. | Japan |
| 10 | Dai-Ichi Kangyo Bank, Ltd. | Japan | Mitsubishi Trust & Banking Corp. | Japan | Long Term Credit Bank of Japan, Ltd. | Japan | ABN AMRO Bank, N.V. | Netherlands |
| 11 | Chase Manhattan Corp. | United States | Credit Agricole Mutuel | France | Deutsche Bank AG. | Germany | Societe Generale | France |
| 12 | Fuji Bank, Ltd. | Japan | Citicorp | United States | Sumitomo Trust & Banking Co. | Japan | Sakura Bank, Ltd. | Japan |
| 13 | Mitsubishi Bank, Ltd. | Japan | Sumitomo Trust & Banking Co, Ltd. | Japan | Tokai Bank, Ltd. | Japan | Union Bank of Switzerland | Switzerland |
| 14 | Sumitomo Bank, Ltd. | Japan | Banque Nationale de Paris | France | Mitsui Trust & Banking Co, Ltd. | Japan | Norinchukin Bank | Japan |
| 15 | Sanwa Bank, Ltd. | Japan | Barclays Plc. | United Kingdom | Credit Agricole Mutuel | France | Barclays Bank Plc. | United Kingdom |

Source: *American Banker*, various issues.

Figure 3

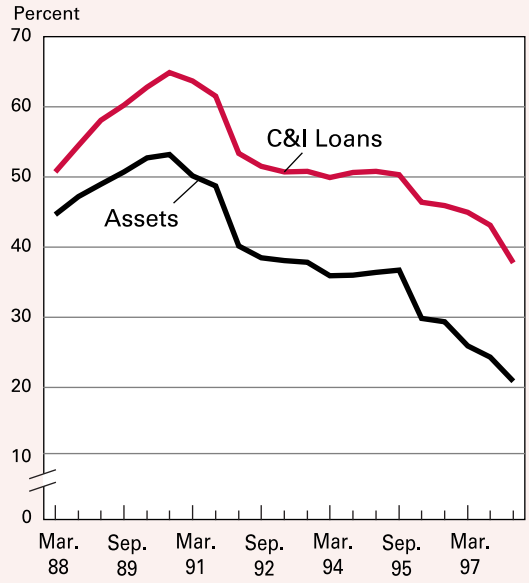
*Japanese Bank Penetration into the U.S. Banking Market: Commercial and Industrial Loans to U.S. Addresses*




Source: Call Report data.

Figure 4

*Japanese Share of Foreign Bank Activity in the United States*




Source: Call Report data.

in the market share of U.S. banking assets held by non-Japanese foreign banking organizations.

Peek and Rosengren (1997) provide statistical evidence indicating that Japanese capital constraints were responsible for some of the loan shrinkage in the United States. They examine a panel data set of Japanese banks active in the United States and find that capital constraints were economically and statistically significant determinants of the shrinkage of Japanese operations in the United States.

The reduction due to lower capital ratios was most closely associated with Japanese branches, which account for roughly three-fourths of all U.S. loans by Japanese banking organizations, rather than with Japanese subsidiaries. Japanese subsidiaries have much larger retail operations, are separately capitalized, and are not included in the capital or assets of their Japanese parent (although they do appear in the consolidated capital and assets data). Thus, it is not surprising that their behavior may be more sensitive to local market conditions and less sensitive to capital problems at their parent, especially since the Japanese subsidiaries, unlike their parents, tend to be quite well capitalized.

Japanese branches are likely to be much more sensitive to problems at the parent because they are not separately capitalized, relying instead on the capital of the parent. In addition, any expansion of risk-weighted assets at the branch will reduce the parent's risk-based capital ratio. Furthermore, because the parent's capital is denominated in yen, a decline in the value of the yen will increase the yen value of the non-yen-denominated assets at the balance sheets of the foreign branches, reducing the parent's capital-to-asset ratio even in the absence of asset growth at the branches.

The United States is not the only market that is experiencing a withdrawal by Japanese banks. The low capital ratios and the higher premiums paid in the interbank markets have caused Japanese banks to reduce their low-margin lending (Peek and Rosengren 1998b). This has appeared as sharp reductions in lending in off-shore markets such as Hong Kong and Singapore (Peek and Rosengren 1998a).

As the Japanese banking problems have become more severe, Japanese banks have been moving beyond reducing loans and assets to closing or consolidating operations in the United States. Table 2 shows

Table 2
*Japanese Banking Operations in United States, 1993 and 1997*

| Banks | 1993 | | 1997 | | Change | |
|---|---|---|---|---|---|---|
| | US Branches & Agencies | US Subsidiaries | US Branches & Agencies | US Subsidiaries | US Branches & Agencies | US Subsidiaries |
| Industrial Bank of Japan | 5 | 3 | 5 | 4 | 0 | 1 |
| Long-Term Credit Bank | 3 | 5 | 2 | 4 | −1 | −1 |
| Nippon Credit Bank | 2 | 2 | 1 | 3 | −1 | 1 |
| Dai-Ichi Kangyo Bank | 6 | 7 | 6 | 7 | 0 | 0 |
| Sakura Bank | 7 | 5 | 6 | 5 | −1 | 0 |
| Fuji Bank | 6 | 9 | 6 | 12 | 0 | 3 |
| Bank of Tokyo-Mitsubishi[a] | 20 | 13 | 10 | 10 | −10 | −3 |
| Asahi Bank | 3 | 2 | 3 | 1 | 0 | −1 |
| Sanwa Bank | 7 | 6 | 7 | 6 | 0 | 0 |
| Sumitomo Bank | 6 | 7 | 6 | 7 | 0 | 0 |
| Daiwa Bank | 17 | 1 | 0 | 0 | −17 | −1 |
| Tokai Bank | 6 | 5 | 4 | 5 | −2 | 0 |
| Mitsui Trust & Banking Co. | 3 | 3 | 1 | 3 | −2 | 0 |
| Mitsubishi Trust & Banking Corp. | 3 | 2 | 3 | 3 | 0 | 1 |
| Sumitomo Trust & Banking Co. | 2 | 1 | 2 | 1 | 0 | 0 |
| Yasuda Trust & Banking Co. | 3 | 1 | 2 | 2 | −1 | 1 |
| Toyo Trust & Banking Co. | 3 | 1 | 3 | 1 | 0 | 0 |
| Chou Trust & Banking Co. | 2 | 1 | 1 | 0 | −1 | −1 |
| Total | 104 | 74 | 68 | 74 | −36 | 0 |
| Total excluding Daiwa Bank | 87 | 73 | 68 | 74 | −19 | 1 |

[a]For the purposes of this table, figures for the Bank of Tokyo and Mitsubishi Bank have been merged.
Source: Federation of Bankers Associations of Japan (1993 figures are as of 12/31/93) and Company Annual Reports (1997 figures are as of 3/31/97).

the changes in the numbers of U.S. branches, agencies, and subsidiaries of individual Japanese banking organizations that occurred between 1993 and 1997. The shrinkage among branches and agencies was widespread, although some of the declines are idiosyncratic to the period, such as the forced sale of U.S. operations by Daiwa as a result of trading irregularities, and the merger of Bank of Tokyo and Mitsubishi, which resulted in some consolidation. Nonetheless, Japanese banks have already begun to pull back their U.S. operations, and no Japanese bank increased its number of branches and agencies between 1993 and 1997. On the other hand, the total number of U.S. subsidiaries of Japanese banking organizations did not change during this period, although some individual banks did increase or cut the number of their U.S. subsidiaries.

*Japanese capital constraints were responsible for some of the loan shrinkage in the United States, with the reductions most closely associated with Japanese branches.*

Further declines in Japanese bank operations in the United States are likely. In order to qualify for capital infusions from the Japanese government, in March 1998 Japanese banks had to disclose plans for their foreign operations in the year 2000. As part of those submissions, the banks included their restructuring plans for their overseas operations. As is apparent from Table 3, Japanese banking organizations intend to substantially reduce their international operations over the next several years, from 313 overseas branches as of fiscal year-end 1997 (March 31, 1998) to only 250 branches by fiscal year-end 2000. These plans are likely to include reductions in U.S. operations, although the publicly available information does not disclose which branches are to be closed.

With the further deterioration in the Japanese banking situation, even the March announcements

Table 3
*Planned International Retrenchment by Japanese Banks (as of March 1998)*

| Banks | Overseas Branches FY 1997 | FY 2000 | Change |
|---|---|---|---|
| Industrial Bank of Japan | 22 | 18 | −4 |
| Long-Term Credit Bank | 13 | 7 | −6 |
| Nippon Credit Bank | 1 | 1 | 0 |
| Dai-Ichi Kangyo Bank | 25 | 18 | −7 |
| Sakura Bank | 23 | 19 | −4 |
| Fuji Bank | 25 | 24 | −1 |
| Bank of Tokyo-Mitsubishi | 50 | 48 | −2 |
| Asahi Bank | 12 | 9 | −3 |
| Sanwa Bank | 25 | 20 | −5 |
| Sumitomo Bank | 40 | 23 | −17 |
| Daiwa Bank | 6 | 6 | 0 |
| Tokai Bank | 36 | 32 | −4 |
| Mitsui Trust & Banking Co. | 4 | 3 | −1 |
| Mitsubishi Trust & Banking Corp. | 8 | 8 | 0 |
| Sumitomo Trust & Banking Co. | 7 | 7 | 0 |
| Yasuda Trust & Banking Co. | 7 | 0 | −7 |
| Toyo Trust & Banking Co. | 6 | 4 | −2 |
| Chou Trust & Banking Co. | 3 | 3 | 0 |
| Total | 313 | 250 | −63 |

Source: *Nikkei Weekly*.

have required substantial revision. Long-Term Credit Bank had planned in March on closing six overseas branches. It subsequently declared that it would cease all international operations, and then it was announced that the bank would be nationalized. In addition, Daiwa, Yasuda Trust, Mitsui Trust, and Nippon Credit Bank have each announced plans to cease international operations. After eliminating their international operations, Japanese banks need maintain only a 4 percent risk-based capital requirement rather than the 8 percent required for internationally active banks. Thus, a direct link exists between banks' ability to maintain capital ratios and their willingness to remain internationally active.

## V. Conclusion

Globalization will require policymakers to monitor more carefully both banking conditions and policy responses to shocks abroad, which now may be more easily transmitted internationally. Nonetheless, globalization brings many benefits. Borrowers have greater choice of lenders, with the consequent benefits from increased competition in the interest rates and services provided. Borrowers will also have more recourse to foreign lenders should their local lender suffer from local banking shocks, such as those that caused problems here during the early 1990s. Banks should also benefit from globalization. Global markets allow banks to better diversify their assets, making them less susceptible to localized shocks. In addition, banks can reallocate funds so as to get the highest risk-adjusted return, regardless of the geographic location of the borrower. Thus, while globalization will increase the complexity of banking regulation and monitoring, it should result in a more efficient allocation of funds available to borrowers.

However, along with the substantial benefits come some potential costs. Since adverse shocks in the home country can be transmitted to credit markets in host countries, it is important that host countries have a foreign bank presence representing many countries. In this way, even with a substantial foreign banking presence, the banking sector will be well diversified so that an adverse shock to another country's banks will have a minimally disruptive effect on the availability of credit in the host country.

The absence of such diversification can have adverse consequences on a host country's economy. In particular, because of the heavy reliance on Japanese banks in Southeast Asia, many have argued that banking policies in Japan may be a key determinant of the timing and the extent of the recovery in Southeast Asia. The way that Japanese regulators resolve the financial problems in Japanese banks' balance sheets could have serious ramifications for many of their banks and, as a consequence, affect lending in the United States and other countries with a significant Japanese banking presence. This situation highlights the need for macroeconomic and regulatory policymakers to shift to a global focus, as has already occurred in many banking and financial markets.

## References


Bernanke, Ben S. and Cara S. Lown. 1991. "The Credit Crunch." *Brookings Papers on Economic Activity*, No. 2, pp. 205–48.

Frankel, Allen B. and Paul B. Morgan. 1992. "Deregulation and Competition in Japanese Banking." *Federal Reserve Bulletin*, August, pp. 579–93.

French, Kenneth R. and James M. Poterba. 1991. "Were Japanese Stock Prices Too High?" *Journal of Financial Economics*, October, pp. 337–63.

Gibson, Michael S. 1995. "Can Bank Health Affect Investment? Evidence from Japan." *Journal of Business*, vol. 68, no. 3, pp. 281–308.

Hall, Brian J. 1993. "How Has the Basle Accord Affected Bank

Portfolios?" *Journal of the Japanese and International Economies*, vol. 7, pp. 408–40.
Hancock, Diana and James A. Wilcox. 1995. "Bank Balance Sheet Shocks: Their Dynamic Effects on Bank Capital and Lending." *Journal of Banking and Finance*, vol. 19(1), pp. 661–78.
Hoshi, Takeo, Anil Kashyap, and David Scharfstein. 1990. "The Role of Banks in Reducing the Costs of Financial Distress in Japan." *Journal of Financial Economics*, September, pp. 67–88.
_____. 1991. "Corporate Structure, Liquidity, and Investment: Evidence From Japanese Industrial Groups." *Quarterly Journal of Economics*, February, pp. 33–60.
Hoshi, Takeo, David Scharfstein, and Kenneth J. Singleton. 1993. "Japanese Corporate Investment and Bank of Japan Guidance of Commercial Bank Lending." In Kenneth J. Singleton, ed., *Japanese Monetary Policy*. Chicago: University of Chicago Press.
Huh, Chan, and Sun Bae Kim. 1994. "How Bad Is the 'Bad Loan Problem' in Japan?" Federal Reserve Bank of San Francisco *Weekly Letter*, September 23.
James, Christopher. 1987. "Some Evidence on the Uniqueness of Bank Loans." *Journal of Financial Economics*, vol. 19, pp. 217–35.
Kang, Jun-Koo and Rene M. Stulz. 1998. "Do Banking Shocks Affect Borrowing Firm Performance? An Analysis of the Japanese Experience." Paper presented at the NBER Corporate Finance Workshop.
Kim, Sun Bae and Ramon Moreno. 1994. "Stock Prices and Bank Lending Behavior in Japan." Federal Reserve Bank of San Francisco *Economic Review*, no. 1, pp. 31–42.
Nolle, Daniel E. and Rama Seth. 1995. "Do Banks Follow Their Customers Abroad?" Manuscript presented at Financial Management Association Meetings, October.
Peek, Joe and Eric S. Rosengren. 1995a. "The Capital Crunch: Neither a Borrower Nor a Lender Be." *Journal of Money, Credit and Banking*, vol. 27(3), pp. 625–38.
_____. 1995b. "Bank Regulation and the Credit Crunch." *Journal of Banking and Finance*, vol. 19(1), pp. 679–92.
_____. 1995c. "Banks and the Availability of Small Business Loans." Federal Reserve Bank of Boston Working Paper No. 95–1, January.
_____. 1997. "The International Transmission of Financial Shocks: The Case of Japan." *The American Economic Review*, vol. 87(4), September, pp. 495–505.
_____. 1998a. "The Effects of the Japanese Banking Problems: Implications for Southeast Asia." Federal Reserve Bank of Boston Working Paper No. 98–7.
_____. 1998b. "Determinants of the Japan Premium: Actions Speak Louder than Words." Federal Reserve Bank of Boston Working Paper No. 98–9, forthcoming.
Petersen, Mitchell A. and Raghuram G. Rajan. 1994. "The Benefits of Lending Relationships: Evidence from Small Business Data." *Journal of Finance*, vol. 49(1), pp. 247–67.
Prowse, Stephen D. 1990. "Institutional Investment Patterns and Corporate Financial Behavior in the United States and Japan." *Journal of Financial Economics*, September, pp. 43–66.
Scott, Hal S. and Shinsaku Iwahara. 1994. "In Search of a Level Playing Field: The Implementation of the Basle Capital Accord in Japan and the United States." Occasional Paper 46, Group of Thirty, Washington, DC.
Seth, Rama and Alicia Quijano. 1991. "Japanese Banks' Customers in the United States." Federal Reserve Bank of New York *Quarterly Review*, Spring, pp. 79–82.
Slovin, Myron B., Marie E. Sushka, and John A. Polonchek. 1993. "The Value of Bank Durability: Borrowers as Bank Stakeholders." *Journal of Finance*, vol. 48(1), pp. 247–67.
Stiglitz, Joseph and Andrew Weiss. 1981. "Credit Rationing in Markets with Imperfect Information." *The American Economic Review*, vol. 71(2), pp. 393–410.
Sugahara, Masaharu. 1994. "The Response of Japanese Banks to Risk Based Capital Regulations." In Charles A. Stone and Anne Zissu, eds., *Global Risk Based Capital Regulations, Volume 1: Capital Adequacy*, pp. 164–83. Burr Ridge, Il: Irwin Professional Publishing.
Terrell, Henry S. 1993. "U.S. Branches and Agencies of Foreign Banks: A New Look." *Federal Reserve Bulletin*, October, pp. 913–25.