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Liberalization and Stability in the Japanese Financial System An Overview

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An Overview

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1. Introduction

The fragility of Japan's financial system has been revealed by the huge amount of nonperforming loans in the banking sector after the "bubble" burst in 1990. The bad loan problem has not only caused serious concern among people about the credibility of Japanese financial institutions. It has also paralyzed the macroeconomy by forcing banks to restructure their equity capital positions. Specifically, the deteriorated equity capital in the banking system seems to have restrained banks from actively supplying credit to industrial firms, and particularly small-scale businesses, in the early 1990s. The deterioration of banks' equity capital has exacerbated the macroeconomic recession triggered by the tight money policy.

The Ministry of Finance and the Bank of Japan, i.e. the regulatory authorities in the Japanese financial system, are now being subject to criticism for their failure of preventing this sort of financial turmoil, and for their unreasonable

management of the safety net in their dealing with banks or other financial institutions in distress. Many people think that the current safety net in the financial system and related regulations should be reorganized to regain financial stability. Thus, in spite of its tremendous development since the end of World War II, the Japanese financial system has not yet resolved the issue how to maintain stability in the face of dynamic developments in financial markets.

This chapter reviews the working and evolution of the safety net in postwar Japan. Similar to most industrialized countries, Japan has had a quite extensive safety net, managed by the regulatory authorities. Section II explains how the authorities have managed the safety net, and how they succeeded in keeping financial stability. In this section, I emphasize the important role of competition-restricting regulations. The Japanese safety net was crucially dependent on these competition-restricting regulations in two respects. First, the regulations conferred on existing banks and other financial institutions a considerable amount of rent, which could be utilized when the authorities rescued troubled banks. Secondly, the competition-restricting regulations kept the franchise value in the banking at a high level, giving banks incentives not to engage in activities associated with moral hazard that are likely to prevail under extensive safety nets.

Section III briefly explains the structural changes in

the financial system since the mid-1970. Accompanied with gradual deregulation in financial markets, the structural changes decreased the banks' franchise value. After this explanation, I will make an overview of how banks extended their risk-taking during the 1980s, and to what extent banks' equity capital was adversely effected by the increase in nonperforming loans. The overview makes it clear that the prudential regulations were ineffective in keeping a consistent relationship between financial stability and traditional safety net mechanisms. Section IV summarized the argument in this chapter and discusses some policy problems concerning how to recover financial stability in Japan.

II: Relationship between Financial Regulation and Stability

The financial safety net is provided by the government for the purpose of minimizing after-effects of individual banks' or other financial institutions' managerial failures on the whole financial system. However, the safety net also has important implications for risk-sharing in the financial system. In order to keep the safety net viable, we need some appropriate incentive mechanisms to prevent moral hazard-type behavior that endangers the stability of the safety net system. In this section, I will briefly explain the safety net mechanisms adopted by the regulatory authorities in postwar Japan. Then, I will proceed to discussing how the

safety net system was maintained in Japan.

II.1: The safety net in the financial system

It has been a widely accepted view that the regulatory authorities must intervene in the process of dealing with financially distressed banks and other financial institutions in order to maintain stability within the financial system. The possibility that many people who hold banks' debt, and deposits in particular, would suffer from losses in the case of the banks' bankruptcy makes the banking system vulnerable to financial disturbances.[1] Monetary authorities in almost all industrial economies have intervened in cases of financial distress of individual banks and related financial institutions following this conventional view. The scheme of the regulators' intervention in the financial markets to prevent managerial failures of individual banks and/or other financial institutions from endangering stability of the financial system is called the "the safety net."

There are a number of methods for the regulatory authorities to intervene in dealing with distressed banks. For example, paying off depositors of defaulted banks through the deposit insurance system is one of many instruments of the safety net. In some other cases, the central bank or regulatory authority steps in to rescue banks in trouble. Such regulatory intervention in banks' distress quite often

helps almost all banks' debt holders to escape losses associated with bank failures. This has been an important function of the safety net in industrialized countries such as Japan.

The function of the safety net has an obvious ex-post implication concerning risk-bearing; i.e., some part of risk in bank management is transferred to regulatory authorities from not only banks' managers and equity holders, but also holders of banks' debt. In other words, should regulatory authorities be unable to management under the safety net, bank managers and equity holders would be given incentives to engage in excessive risk-taking. Specifically, banks' shareholders can increase their expected profits by making loans that are riskier, but have higher upside potential - heads the banks do well, tails the taxpayers lose. This is a typical moral hazard problem. Thus, we need another regulatory system in order to prevent this problem caused by the existence of the safety net.[2)] The wider is the scope of the financial safety net operated by the government, the stronger are the incentives to moral hazard-type behavior given to private banks, and the more strongly the regulatory authorities are required to monitor to prevent moral hazard. Monitoring is costly so that it is impossible for regulators to totally prevent banks' unsound, moral hazard-type behavior. In the following, I will investigate how the financial safety

net has worked, and how its effectiveness was sustained in postwar Japan.

II.2: The safety net in postwar Japan

The Japanese financial system has been operating under the extensive safety net offered by the regulatory authorities. The Ministry of Finance (MOF) executed programs rescuing financially distressed institutions in tight collaboration with the Bank of Japan (BOJ) and private financial institutions, particularly major banks although the number of banks that went to the brink of failure has been small. The largest scale of rescue program was not a case of bank failure, but the case of Yamaichi Securities Company in 1965. In this program, which was coordinated by the MOF, the BOJ provided emergency loans of ¥28.2 billion to Fuji Bank and other two city banks which functioned as conduit supplying financial support to Yamaichi.[3)]

The safety net for the Japanese financial system was based on intimate collaboration between the MOF, the BOJ, and the private banks. There were some cases in which the MOF explicitly or implicitly ordered private banks to rescue financially distressed peers. In other cases, the MOF sent its officers to the CEO board of the distressed bank with a view to restructuring its management. For example, in 1965, Kawachi Bank, a small regional banks in financial distress,

was absorbed by Sumitomo Bank, and, in 1978, Mitsui Bank absorbed Toto Bank, which had experienced rather stagnant performance for a long time. The MOF sent an officer to Taiko Sogo Bank, a small regional bank located in Nigata prefecture, to reorganize its management in 1974.

Since the procedure taken by the regulators in rescuing troubled banks was almost always convert, it is difficult to estimate the social costs of the safety net and the distribution of the burden among various agents. However, the costs of preserving financial stability seemed to be borne unevenly by sound private banks, particularly major banks. It was rare that regulatory authorities including the BOJ directly paid the costs of the bail-out procedure. The regulatory authorities tended to confine their role to coordinating the rescue program and providing necessary information to related parties. In some cases, the BOJ may have extended loans to financially distressed banks at the official discount rate - substantially lower than money market interest rates - in order to help them. It is impossible, however, to obtain any information concerning those implicit rescue programs executed by BOJ.

As the experience of the United states financial system suggests, the deposit insurance may well have become an important element of the safety net. In reality, however, it was not so in postwar Japan. In 1971, the system of deposit

insurance was introduced in Japan. According to the MOF's official explanation, the objective of introducing the deposit insurance was to prepare for an increase in cases of bank failure anticipated from the more severe competition in the Japanese banking than before. From the second half of the 1960s, the MOF began a reconsideration of the Japanese financial system as it had existed from the end of World War II until that time. The main theme of the reconsideration was how the traditional financial administration of the MOF should be evaluated. As has been already explained, the traditional administration consists of competition-restricting regulations. However, some staff in the MOF argued for reforming the financial administration in order to foster more efficient financial mechanisms. They believed that a more competitive financial system would be necessary for improving efficiency in the financial industries. They anticipated a substantial increase in pressure for competition in the Japanese financial markets in the near future. Against these arguments, some other staff in the MOF were not so enthusiastic about changes in the Japanese system of financial regulations.

In 1970, the Council of Financial System (Kinyu-seido Chosa-kai) published a report entitled "A Report on Functions of Private Financial Institutions," which emphasized importance of promoting efficiency in private banks' and other

financial institutions' management to prepare for increased competition in the near future. This reported reflected the positive option of those who favored MOF's administration of promoting efficiency in the financial system. Introduction of a deposit insurance system was advocated in this report.[4]

There seems to have existed a low-keyed but serious debate among the MOF staff concerning how to reform the financial administration. As of the early 1970s, the view favoring the traditional administration was rather dominant in MOF.[5] Since the new administration for financial efficiency was opposed by those favoring the traditional administration who regarded competition-restricting regulations as indispensable to the financial stability, the Japanese financial system was very gradually dismantled of those regulations since the mid-1970s. Therefore, the deposit insurance corporation stayed as a rather nominal institution for a long time. Until reformed in 1986, the functions of the Japanese deposit insurance system had been narrowly limited compared with that of its U.S. counterpart, in the sense that the Japanese system was confined to paying off insured deposits in the case of bank failures. Actually, the deposit insurance system had never been utilized prior to April 1992, when the system supplied ¥8.0 billion to help Iyo Bank absorb Toho Sogo Bank.

II.3: Role of competition-restricting regulations

In summary, in the framework of the Japanese safety net, major banks and/or financially sound banks faithfully bore an uneven share of the costs accompanied with the process of rescuing troubled banks. The regulators could rely on private banks' collaboration with them. Furthermore, the extensive safety net, in spite of its implication of risk-sharing, did not induce widespread moral hazard behavior on the side of private banks. Why could the safety net mechanisms work successfully in this way in postwar Japan? In this regard, the existence of rents in the banking sector was important for this mechanism of the safety net. Without the rents, private banks could not afford to collaborate with the authorities' rescue programs.

Functions of competition-restricting regulations: The traditional competition-restricting regulations such as restricting new entry into banking and other financial business and interest rate controls effectively contributed to accumulation of rents in the financial sector. Chart 1 presents the average profit rate (current profits per equity capita) in the banking since the late 1950s. The Japanese banks enjoyed relatively high profit rates during the high growth period from the late 1950s to the early 1970s, when the extensive competition-restricting regulations were imposed,

and domestic financial markets were segregated from foreign markets. However, the banks' profit rates showed considerable decline after the mid-1970s. As will be seen later, this decline corresponded to structural changes in the financial system, and these changes were induced by the graduate introduction and enforcement of deregulation measures.

Small-scale financial intermediaries such as credit associations, credit cooperatives and regional banks were particularly protected by the competition-restricting regulations. For example, the MOF's principle of "one bank in one prefecture" suppressed competition among banks and other financial institutions in regional financial markets by preventing new entry into regional banking markets.[6)]

The administration of branch offices (tenpo-gyosei) was also important. During the high growth period, when almost all interest rates were regulated, branch offices were a very important means of 'non-price competition' for banks and essentially the means by which banks competed for deposit funds. Due to the MOF's administration of bank branch offices, banks were neither free to expand nor to change the location of their branch networks. In permitting new branches, the MOF gave preferential treatment to small-scale banks, as Table 1 shows. According to this table, small-sized banks increased the number of their branch offices more rapidly than city banks not only during the high growth

period, but also after the mid-1970s. This policy stance toward the financial industry has been called the "escorted convoy method" (goso sendan gyosei), in that the government restricted full-scale competition in order to stop the weakest firms from falling too far behind and the strongest from getting too far ahead.

In the context of the safety net mechanisms, the competition-restricting regulations were important not only because they protected small-scale and often inefficient banks, but also because they were utilized by the regulators to provide private banks with incentives to collaborate or obey the regulators' administrative guidance. The regulators manipulated these regulatory means to do favors for those who were faithful to them and to penalize those who failed to heed their guidance.

For example, in 1994, Mitsubishi Bank absorbed Nippon Trust Bank, which had been seriously damaged by the accumulation of a huge amount of bad loans since the early 1990s. Mitsubishi Bank has obtained the ability to pursue full-line trust banking business through NTB, which is now its subsidiary. On the other hand, other banks are prohibited from engaging in the full-line trust banking business through their trust bank subsidiaries by the MOF's administrative guidance.[7] Thus, Mitsubishi has obtained preferential treatments from the MOF at the expense of absorbing the

distressed Nippon Trust.

As an example of the case in which the MOF penalized those not obedient to its administrative guidance by manipulating regulatory means, we may cite the case of Daiwa Bank (one of the city bank group). Daiwa Bank did not accept the MOF's guidance requiring separation of its commercial banking business from its trust banking business in 1954. Except for Daiwa, all city banks, which used to engage in both trust banking and commercial banking business jointly, separated their trust banking section from their commercial banking section by establishing independent trust banks. Daiwa Bank was reportedly treated unfavorably by the MOF with respect to distribution of branch offices for a long time. It has been widely believed that the MOF's administrative guidance is quite effective despite its legal ambiguity because the MOF has been able to manipulate the distribution of rents accruing from competition-restricting regulations to reward the banks faithful to its guidance and to penalize those not obeying it.

The intricate procedure adopted by the administration helped the MOF to obtain detailed information about individual banks' management. The BOJ's daily transactions with commercial banks through interbank money markets helped the BOJ to monitor individual banks' behavior as well. Not only did the traditional competition-restricting regulations give

existing banks a handsome amount of rents which could be utilized to support the regulators' operation of the safety net. The regulations also provided the monetary authorities with opportunities of monitoring private banks. The closed relationships between regulators and private banks seems to have effectively prevented private banks from engaging in moral hazard-type activities under in spite of existence of the wide scope of the financial safety net.

Banks' rents as a development promoter?: Did the rents accumulated in the banking sector due to the competition-restricting regulations have something to do with the rapid industrial development in postwar Japan? This is an important and interesting question. The conventional view of the Japanese low interest rate policy gives an affirmative answer to this question. This view claims that the rents were effectively transferred from the banking industry to non-bank industrial sectors, thereby promoting industrial investment.[8] For example, Hellmann, Murdock and Stiglitz (1994) supports the conventional view by providing a theoretical model in which the rents work as an effective instrument of monitoring banks to engaging efficient monitoring and financial mediation in the circumstances of imperfect information.

However, it is not so obvious whether the rents were actually transferred to the non-bank industrial sector.[9] It

is not easy to determine whether the rents in the banking sector were actually transferred to the important industries, thereby promoting industrial development in postwar Japan. At any rate, it is sure that the regulatory authorities' intention of regulations were not so much in promoting industrial development as in keeping financial stability in postwar Japan.[10]

II.4: Prudential regulations in postwar Japan

The prudential regulations are those means of forcing private banks to have sufficient liquidity and equity positions to reduce the possibility of their bankruptcy to a minimum. The purpose of these regulations is not to restrict competition in financial markets, but to restrain private banks under the safety net from shifting managerial risk from their shareholders to debt holders (depositors) and particularly to regulator. Thus, they are different from the competition-restricting regulations. The capital adequacy regulation is a typical means of prudential regulation.

During the period of economic reconstruction immediately after World War Ii, the MOF was seriously concerned with the prudence of bank management, because banks' equity capital per deposit fell sharply from 29.9% in 1930 to 5.6% in 1953.[11] The MOF guided banks to reduce the current expenses to 78% or less of the current revenues with a view to strengthening the

capital bases of private banks. This administrative guidance started in 1953 and continued until 1973.

In 1954, the MOF also introduced the capital adequacy regulation by notifying banks to raise the broadly defined capital ratio to higher than 10 percent of total deposits.[12)] This administrative guidance could be regarded as a typical means of prudential regulation, the role of which was succeeded by the BIS capital adequacy regulation introduced in 1987. However, this capital adequacy regulation was obviously ineffective not only during the high growth period, but also during the post-high growth period until the mid-1980s. Chart 2 presents that, from the early 1950s to the mid-1970s, the average of the broadly defined capital/debt ratio of the banking sector remained almost constant at six percent. Thus, the capital/debt ratio in the banking sector was far below the MOF's requirement of 10 percent. Despite the introduction of the capital adequacy requirement, it did not seem to significant by improved.[13)]

Furthermore, during the 1980s, the ratio abruptly dropped to less than four percent.(Chart 2) The MOF amended the capital adequacy regulation in 1986 when the framework of accounting rule of banks' financial statements. Probably, through this amendment, the MOF intended to make the capital adequacy regulation more practical and more realistic than before. However, it was ambiguous whether the MOF became

aware of the increasing importance of the prudential regulations in the banking as of the mid-1980s. The new capital adequacy rule required banks' broadly defined capital to be equal of higher than 4 percent of total assets. In my understanding, this requirement was not so stringent. Moreover, the MOF itself mitigated the impact of this new rule on private banks by stating that this requirement was a target to be pursued by banks until March 1990.[14)]

The following Table 2 presents a list of prudential regulations for commercial banks as of January 1962. On the whole, as the episode of capital ratio regulation suggests, bankers did not consider the prudential regulations guided by the MOF as something to be attained at any cost. The MOF was generous enough to permit some divergences between the figures required by the prudential regulation and the actual figures achieved by individual banks. Therefore, it is not an exaggeration to say that the prudential regulations were not effective in Japan until the end of the 1980s.

III: Impact of financial liberalization on the safety net

In the previous section, I argued that the Japanese monetary authorities adopted a full-scale safety net system during the high growth period, and that the safety net was supported by competition-restricting regulations that helped private banks and other financial institutions to accumulate

handsome amounts of rents. On the other hand, the prudential regulations did not play any significant roles until the late 1980s. Needless to say, the merit of the competition-restricting regulations should not be exaggerated. Although the important role was assigned in the framework of the traditional safety net, the competition-restricting regulations deprived the Japanese financial system of both flexibility and innovative dynamism.

Since the late 1970s, the Japanese financial system has experienced structural changes represented by the growing amount of government bonds and by the decreased reliance of major companies on bank loans. The structural changes led to a decline in the relative importance of banking in the Japanese financial system, which in turn undermined bank profitability. The decrease in the relative importance of the banking sector led to two consequences which are inter-related; i.e., difficulty of maintaining the traditional safety net mechanisms, and imprudent risk-taking on the side of banks leading to the serious bad loan problem which emerged in the early 1990s.

In the following, after explaining structural changes in the financial system since the late 1970s, I will discuss these two consequences of financial liberalization, and how the Japanese authorities did not succeed in keeping the financial system stable during the 1980s.

III.1: Structural changes in financial markets

We may explain the evolution of the Japanese financial structure after the end of high economic growth in various ways. But here it will suffice to focus on the impact of rapidly growing government debt and structural changes in corporate finance on banks' profitability.

Rapidly growing government debt: The Japanese economy entered the low growth period in the mid 1970s. Associated with this gear shift, Japan's financial structure changed remarkably. Specifically, the corporate sector reduced the amount of funds required to be externally raised due to the relative decline in corporate sector investment. In place of the corporate sector, the government became the greatest fund-raiser issuing huge amounts of government bonds to finance budget deficits (Table 3). The rapid increase in government bonds exerted great pressure on the strictly regulated financial system because government bonds are quite amenable to the price mechanisms of open markets. From the viewpoint of individual investors, government bonds are a safe and liquid store of value, and highly substitutable for bank deposits.

The marketability helped long-term government bonds to be a basic instrument for short-term financial transactions. Specifically, the market for repurchase agreements (repos or

gensaki in Japanese) based on long-term government bonds has developed remarkably since the latter half of the 1970s. This market provides Japanese investors with a convenient store of value at rates competitive to bank deposits. It is natural that the prevalence of government bonds has forced the banking sector to introduce new instruments in order to preserve their status quo in the financial system. Hence, negotiable certificates of deposit (CDs) were introduced into Japan's financial markets as a bankers' initiative in 1979. The introduction of CDs was the first step for the subsequent liberalization in Japan's financial markets.

As the amount of government bonds issued increased, the sales of the bonds became an important activity in securities markets. Banks pushed strongly for permission from the MOF to engage in selling government bonds to individual investors. The sale of government bonds is one of the businesses of securities companies, but the Securities Exchange Act does not prohibit banks from engaging in this business. Since 1985, the MOF has allowed banks to sell government bonds to individual depositors in spite of strong resistance from securities companies. This can be regarded as the start of the deregulation of the separation between banking and securities business.[15)]

Structural changes in corporate finance: The transition to the low growth period was accompanied not only by the expansion of government bond issues, but also by a reduction in major companies' borrowing from banks. Actually, these two matters can be regarded as two sides of the same coin, because the low economic growth rate implied a decrease in the amount of corporate sector investment expenditure to be financed by any means. In the case of major companies, they mainly decreased their amount of borrowing from banks, thus increasing the relative importance of internal funds (i.e., the sum of depreciation and retained profits). At the same time, fund-raising in the form of issuing securities became relatively important to Japan's major companies.[16] Table 4 depicts these changes.

Liberalization of foreign exchange transactions and international capital movements started in 1980, when the long-standing Foreign Exchange and Foreign Trade Control Law was fundamentally revised, partly accounted for this change in corporate finance. Many Japanese firms, particularly big ones, have issued corporate bonds in the Euro market and other foreign markets. This exerted strong pressures on the domestic corporate bond market that was notorious for its restrictive nature. Active issue in the Euro-bond markets forced the domestic corporate bond market to liberalize the rules controlling corporate bond issues. The number of

Japanese firms recognized as eligible for issuing bonds in the domestic market has been rapidly increased since the mid-1980s.[17] Japanese firms did not always sever the intimate relationship with banks when they issued corporate bonds. Their main banks often support bond-issue in foreign market by giving issuing firms a guarantee.[18] However, the influence of banks on major firms' finance and management was substantially weakened by the financial internationalization.

It should also be noted that small and medium-size businesses have not reduced their reliance on bank credit even after the mid 1970s (Table 4). The Japanese securities markets are not yet well prepared for accommodating small-size businesses. For example, the stringent eligibility requirements for corporate bond issues have in effect crowded small-size businesses out of the corporate bonds market.[19] Therefore, the loan market for small and medium-size business continues to be an important territory for banks, particularly for small banks such as regional and cooperative credit banks. In the early 1980s, large city banks started to invade this market, thus threatening the profitability of small banks which had dominated this market during the high growth period.

Since the major companies were the most important customers of the banking sector during Japan's high growth period, the reduction of their borrowing, although it was rather gradual, threatened the profitability of the banking

sector. Thus, the profitability reduction in the banking sector presented in Chart 1 is closely related to the changes in corporate finance presented in Table 4. Moreover, these changes could possibly be a major cause of banks' aggressive risk-taking during the 1980s which subsequently led to the very serious problem of bad loans in the early 1990s. We will discuss this point more fully in the following.

III.2: The decline in bank profits and imprudent banking

In spite of the policy of deliberate gradualism adopted by the monetary authorities during the 1970s and 1980s, Japan's financial system has not been immune to serious problems. This failure is surprising given that MOF adopted BIS capital adequacy regulations in the late 1980s that had the explicit purpose of enforcing prudent bank management. It is important to understand why the Japanese financial system has been suffering from serious problems since the early 1990s. In the following, I advanced a hypothesis that the failure was related to the decline in banks' profits, i.e., the decreased franchise value in banking.

The increase in bank risk: The financial difficulties of the early 1990s are directly traceable to the expansion of risk-taking by banks in the 1980s. The following examples indicate how this led to increased risk-taking by banks:

1) In the early 1980s Sumitomo Bank and other major banks restructured their organizational form by downgrading the section responsible for credit investigation to a lower status. Most banks followed this policy of organizational structure. This organizational change was a direct manifestation of the change in risk attitudes of the banks. After 1990, most banks reportedly switched back to the old organizational form.

(2) Japanese banks increased long-term loans to the private sector. According to the BOJ, the share of short-term loans in total loans decreased from 55 percent in 1985 to 31 percent of 1990, while the share of long-term loans (with maturities of more than one year) increased from 39 percent to 56 percent. In contrast to this lengthening of asset maturity, the maturity of the liability side of the banks was substantially reduced. For example, the share of deposits with the shortest maturities (from one month to less than six months) rose sharply from a few percent of total time deposits in 1985 to 25 percent in 1988 and then to 40 percent in 1989.[20]

(3) Another important aspect of the expansion of risk involved banks substantially increasing their loans to small and medium-size business. In particular, large city banks aggressively increased loans to these businesses, which were not preferred customers during the high growth period. Both

Table 5 and 6 show the rapid increase in bank loans to small and medium-size business. This switch in direction of loans supply reflects the securitization of major companies' fund-raising presented in Table 4. Although most loans to small and medium-size firms were secured by assets such as real estate, these firms were not well-known clients of the big banks, and therefore loans to them should have been regarded as being more risky than those to major companies.

(4) During the 1980s, particularly towards the end of the decade, Japanese banks increased the amount of credit directed to the real estate industry and to nonbank finance companies and housing finance companies specializing in loans for real estate development and housing. Since many of these funds were invested in real estate development projects, this increase in credit supply effectively represented a dramatic escalation of exposure by major banks to land price risk (Table 7).

The bad-loan problem in the 1990s: Bad loans in the banking sector have emerged as a serious problem for the monetary authorities since 1990, when the financial "bubble" burst. The non-accruing loans of Japanese banks were officially estimated to be about ¥14 trillion, or 3.0 percent of the banks' total loan portfolios as of the end of March 1994. The MOF's September 1993 official estimate of the non-

performing loans of the major banks was ¥12.7 trillion. Thus, the situation seems to have worsened.

In addition, the official figures do not include restructured loans, loans had by subsidiaries, loans for which a "token amount" has been paid every 6 months, and zero-coupon loans. During the past few years, many loans to nonbank finance companies have been "restructured" so as to change low (often zero) interest rates, and yet these loans are not officially recognized as non-performing loans. A good portion of these restructured loans to nonbanks consist of loans to housing finance companies, which amount to approximately ¥4.8 trillion for the 21 major banks in Japan. Most observers estimate that the total problem debt is twice the official amount, that is, approximately six percent of total loans. This is the first experience in Japan of such a wide-spread bad loan problem in the postwar period.

The MOF has been extremely reluctant to disclose the amount of non-performing loans of individual banks, making it very difficult to accurately assess the seriousness of the bad loan problem in Japan. The secretive nature of the MOF's administration seems to be driven by its concern for some small banks whose capital bases, including "hidden reserves," are weak. Needless to say, the reluctant attitude of the MOF towards disclosing relevant data prevents financial markets from efficiently evaluating the performance of individual

banks, and thereby distorts investment. This strategy of the MOF appears to reflect the belief that if it can keep the lid on damaging information for long enough, a catastrophic situation may right itself and costs of financial distress can be minimized. However, there is no assurance that covering up information on bad loans really contributes to stabilizing financial markets because investors may become pessimistic and "fear the worst." Moreover, it surely hinders the efficiency with which financial markets allocate resourced in Japan.

The increase in non-performing loans and the fall of asset prices have led to a deterioration of the asset value of the banking sector, reducing banks' equity in terms of market prices. For the group of city banks, which discloses most openly the current value of non-performing loans, I tentatively estimate that the value of its aggregated equity capital decreased by ¥43.7 trillion due to both falls in market prices of securities and increases in bad loans during five years from March 1990 to March 1994. Responding to this, the city banks increased the provisions for bad loans by ¥1.5 trillion and issued junior debts of ¥8.0 trillion during the five years. Moreover, they seemed to take a rather conservative strategy of restraining expansion of their assets in order to recover their equity capital. The total book value of assets in the city bank group reduced by 10 percent from ¥943.6 trillion of March 1990 to ¥849.8 of March 1994.

This conservative strategy may have worsen the stagnant macroeconomy since 1991 in Japan.[21]

Banks formed a new corporation, the Cooperative Credit Purchasing Corporation (CCPC), to buy bad loans from them at discounted prices as determined by an independent price appraisal committee made up of experts in the fields of law, accounting, taxation, and particularly real estate appraisal. Banks are required to fund the CCPC's loan purchasing transactions when they bring the original loans to the CCPC. Obviously, CCPC was set up under the guidance of the MOF. The essential purpose of the CCPC was to make bank losses on non-performing loans explicit and provide tax relief to banks. When banks transferred loans to the CCPC, they were allowed to tax deduct the difference between the appraised and face value. Until the end of March 1994, these claimed losses amounted to about ¥2.28 trillion, thus contributing to reducing the taxes of Japanese banks by around ¥1.1 trillion (Table 8).[22] However, except for this effect of reducing the tax burden, the CCPC does not directly contribute to bringing about a recovering in banks' equity position - something which is badly desired in the current situation. To write off nonperforming loans through the CCPC operation reveals the decrease in banks' equity capital otherwise concealed in terms of accounting.[23]

Decreases in franchise value in the Japanese banking: I have explained how Japanese banks expanded their risk-taking behavior in the late 1980s, leading to the serious bad loan problem in the early 1990s. Why did they engage in excessive risk-taking behavior in the late 1980s? Was it related to moral hazard-type behavior on the part of banks under the safety net Japanese regulators have adopted? However, as has been explained, the safety net already existed before 1980, thereby providing private banks with incentives for excessive risk-taking. Therefore, the existence of the safety net does not explain the whole story of extreme expansion of Japanese banks' risk-taking after the mid-1980s. This chapter proposes the hypothesis that the change in banks' risk-taking behavior is traceable to decrease in the franchise value of banks.

According to Chart 1, there is a noteworthy movement in the profit rate in the banking sector after the high growth period. The profit rate decreased substantially from the mid-1970s, after being relatively high during the high growth period. This decline suggests a decrease in the franchise value of Japanese banks after the high growth period. The bank profits rates recovered in the latter half of the 1980s. But behind this recovery in profitability, there was an increase in risk-taking by the banks, which was promoted by their declining position in corporate finance.

Economic theory predicts that a decrease in franchise value will induce banks to extend risk-taking. According to Weisbrod, Lee and Rojas-Suarez(1992), two factors can account for the decrease in franchise value in banking both in the United States and Japan during the 1980s.[24] One is the decline in corporate demand for bank liquidity. Another is the decrease in the banks' informational advantage over other lenders in the process of financial mediation. As Weisbrod et al.(1992) point out, the amount of demand deposits held by the Japanese corporate sector has been steadily decreasing since the high growth period. They emphasize that the corporate sector's decreased demand for bank liquidity led to a decline in the franchise value of banks both not only in Japan but also in the United States.

It is difficult to deny the argument advanced by Weisbrod et al.(1992). Nevertheless, it should not be forgotten that the Japanese banks have been losing their informational advantage in Japan's financial system since the late 1970s. In particular, the major companies have reduced their reliance on borrowing from banks, and in turn increased the amount of funds raised through the issue of securities. This securitization of corporate finance, which has been proceeding since the late 1970s (Table 4), put strong pressure on banks to reconsider their traditional way of doing business. In terms of economic theory, the securitization of corporate

finance brought forth the decrease in franchise value of banks, which, in turn, induced banks to take on more risk under the safety net provided by the monetary authorities as exemplified in the previous section.

Bad influence of the BIS regulation?: Many people have pointed out the defects in the BIS capital adequacy regulation introduced in 1988.[25] The regulation did not consider the risk caused by fluctuations in assets prices (the market risk). More importantly, the regulation did not differentiated individual loans to the private sector in terms of degree of risk, so that the shift of loans from the well established companies to small-scale and ambiguous firms does not change the assessment of risk assets for individual banks. This characteristic of the BIS regulation may have induced banks to expand their loan supply to the riskier borrowers of small businesses. If so, the introduction of the BIS regulation was counterproductive to the financial stability.

At present, it is difficult to give a definite answer to the question whether the BIS regulation motivated private banks to expand risk-taking had been started before the introduction of the BIS regulation as have already been explained. Thus, my tentative answer is that the BIS regulation was not the primary cause for banks' excessive risk-taking in the 1980s, although it may have rather

stimulated their risk-taking than suppressed. It should be noted that the unfortunate experience of the BIS regulation does not deny the importance of equity capital in that banking.

III.3: Limitations of the traditional methods of bailing out

Generally speaking, the banking sector and financial system were stable in postwar Japan. There was no bank failure during the high growth period. However, it should also be noted that there were several cases in which financial institutions fell into financial distress and the monetary authorities intervened. In the case of financially distressed banks, the monetary authorities intervened very quickly. Not only depositors but also almost all other creditors were able to avoid the costs associated with their financial distress. Under the MOF guidance, sound banks would help the troubled banks to reorganize their assets and management or simply to absorb the troubled bank. Quite often the MOF personnel entered the troubled banks as top managers. The social costs were not explicit, but most of the direct costs were borne by other sound banks under the MOF's administrative guidance.

Sound banks could afford to endure most of the costs because the banking sector, and leading banks (such as city banks) in particular, accumulated huge amounts of rents under the competition-restricting regulations until the mid-1980s.

The MOF could also persuade sound banks to help or absorb distressed banks by offering to give them favorable treatment in the future or because banks held such expectations. It is widely believed that MOF used the allocation of bank branch offices as a means of persuasion during the high growth period.

However, since the beginning of the 1990s when the "bubble" burst, it has become more and more difficult for the MOF to continue the traditional safety net mechanisms. The difficulty is reflected in the fact that, since 1992, the deposit insurance system has been utilized to cope with financial distress of individual banks. At present, the scale of the Deposit Insurance Corporation's operation is limited. However, its increasing usage marks a significant change in the operation of the safety net in the Japanese financial system. One of the reasons for this change is that, with structural changes in financial markets, there are fewer rents in banking that the MOF can use as a means of persuasion.[26)]

A few recent cases exemplify the difficulty the MOF's traditional bail-out policies face. In the summer of 1992, Toyo Credit Association, a Shinkin bank located in Osaka, was broken up because of insolvency due to bad loans. At first, the MOF reportedly wanted Sanwa Bank, a leading city bank, to absorb the distressed bank, in the traditional fashion of bailing out distressed banks in Japan. However, the MOF could

not persuade Sanwa to do this. Instead, Toyo Credit Association was broken up into a number of pieces, each of which was absorbed by a different financial institution. In the process, the Deposit Insurance Corporation paid ¥20 billion to Sanwa, which absorbed the largest part and played a major role in the reorganization.

Another sign that the traditional bail-out method was running into trouble occurred early in 1994. The chairmen of three local banks located in the Tohoku area jointly announced their plan for a merger. This is another typical method used by MOF to rescue financially distressed banks, namely to persuade one or more relatively well-performing banks to absorb or merge with a weak one. In fact, one of the three banks had a serious bad loan problem and many parties including MOF were pessimistic about the bank's future viability. Doubtlessly the merger plan was the result of MOF's administrative guidance. However, the merger plan had to be abandoned following fierce resistance by employees of the relatively sound banks involved. Some managers of the banks also reportedly argued against the merger plan.

Table 9 below presents a short chronology of the Deposit Insurance Corporation's financial assistance to bail out troubled banks. The traditional safety net mechanisms have not yet disappeared in the Japanese financial system. As this table suggests, many private banks are still playing an

important role in the safety net operation by collaborating with the regulators. However, the role of Deposit Insurance Corporation in the process of bailing out distress banks appears to have become more and more important. It is likely that the deposit insurance system will be utilized substantially in the future.

The Japanese banking system clearly is suffering from the excessive capacity. Use of the deposit insurance system to facilitate reorganization, however, dose not imply that banks will undergo formal bankruptcy procedures. Rather it is likely that MOF will continue to avoid explicit bank failures but use the deposit insurance system, instead of preferential regulatory treatment, to provide incentives to sound banks to merge with insolvent ones. This implies a slow reorganization of the financial system and a marked increase in the burden borne by the Deposit Insurance Corporation. In order to keep the burden manageable, the Deposit Insurance System should strengthen monitoring power. In particular, the system needs to order banks in distress to stop their business just before the negative value of their net wealth becomes too great.

However, these changes in the way that the financial safety net is operated should be beneficial to the Japanese economy because the social costs of bailing out distressed banks will be made more transparent. The increasing transparency will contribute to our assessment about the

efficiency of the current financial safety net. It will also make the regulatory authorities' administration more accountable, as suggested by the recent experience of bailing out two cooperative credit banks in Tokyo.

IV: Concluding Remarks: The Future Role of the Regulatory Authorities

This chapter reviewed the changing relationship between the safety net and financial regulations in postwar Japan. The Japanese monetary authorities have operated the safety net so extensively that losses associated with de facto bank failures were confined to a few major banks and some related entities. The effectiveness of the extensive safety net was dependent on the rents accumulated in the banking sector during the high growth period. The various competition-restricting regulations seemed to help banks and financial intermediaries to sustain rents. Sound banks could afford to collaborate with regulators in bailing out distressed banks and other financial institutions. Moreover, the existence of rents gave banks incentives not to engage in moral hazard behavior such as expanding risk-taking under the safety net.

However, deregulation and internationalization gradually but steadily undertaken in the Japanese financial markets since the late 1970s substantially changed the environment in which the safety net operated. More competitive financial

markets deprived banks of their monopolistic status as financial intermediaries. In particular, Japanese major companies reduced their reliance on borrowing from banks. Thus, banks profitability showed a rapid decline during the decade after the mid-1970s. This has shaken the Japanese traditional safety net in two ways. First, it has become difficult for banks to totally collaborate with the authorities in operating the safety net. Secondly, the decline in profitability has decreased incentives for banks to not take excessively risky positions under the safety net. Thus, the Japanese banks extended their risk-taking during the late 1980s, leading to the destructive bad loans problem in the early 1990s.

From the description of recent malfunction of the Japanese financial system, we can derive the following lessons regarding public policy in financial markets.

The Japanese monetary authorities should have paid much more attention to the prudential regulations such as the capital adequacy requirement. Although the prudential regulations have been prepared for long, the regulators did not think them important. However, if the authorities continue the rather extensive financial safety net, they are required to have effective regulations of monitoring and preventing moral hazard behavior on the part of private banks. In reality, the Japanese authorities have already started

strengthening prudential regulations from the late 1980s, taking advantage of introduction of the BIS capital adequacy rule. But there remains room for improvement in the monitoring power of the authorities. In particular, it should be note that some small scale members of the cooperative banks (shinyo kumiai) and the agricultural cooperative institutions (nokyo) are only imperfectly monitored by the authorities independent from MOF and BOJ.[27)]

Even if a more rational system of monitoring banks and financial institutions had been in place, it would not mean that the Japanese authorities could have kept perfectly stable financial markets under the traditional safety net. The deregulation of the financial system has produced very sophisticated and complicated financial transactions in the markets. making it costly for the authorities to appropriately monitor in order to prevent moral hazard behavior. On the other hand, many participants in the financial markets have accumulated expertise in obtaining relevant information regarding their counterparts in financial transactions.

While it has deteriorated the regulatory authorities' monitoring power, the financial deregulation has strengthened market mechanisms which serve to stabilize the financial system. Therefore, the Japanese authorities will be able to transfer some tasks of monitoring to market participants by preparing a more perfect system of disclosure regarding

individual banks' management. To promote disclosure of individual banks' managerial performance would require a fundamental change in the regulators' policy stance, because at present they hesitate to allow full-scale disclosure of nonperforming loans of individual banks. The reason for the hesitation is that they are afraid of the panic that may be caused by the exact information about deteriorated equity positions of banks, particularly those of small banks. However, there is no assurance that to restrict disclosing appropriate information is better for stabilizing the financial system than to allow disclosing it, because it is highly possible that market participants are more prone to panic under a situation of restricted and inaccurate information.

The policy of not disclosing relevant information of individual banks' performance requires the regulators to intensively monitor private banks in place of markets and to keep the traditional safety net operating. As has already been explained, it has become more and more costly in Japan. Thus, the regulator will be able to reduce their burden of operating the traditional extensive safety net, and specialize in producing and disseminating relevant information on banks' performance.

Foot Notes

* This chapter was based on the author's seminar held at the Reserve Bank of Australia in Sydney. The author is grateful for valuable comments on the original manuscript from Gordon de Brouwer, Peter Drysdale, and particularly from Paul Sheard and John Stachurski.

1) See Diamond and Dybvig(1983).

2) See, for example, Edwards and Scott(1979) and Benston(1986).

3) The banks in question were main-banks of Yamaichi. See the MOF(1991: pp.620-637).

4) The MOF took up the policy agenda of introducing deposit insurance even before 1970. However, it was not realized mainly because big banks did not want to bear the burden they expected failures of small banks would caused. See the MOF(1991: p.414). This resistance of big banks seemed to be a little strange, because the Japanese safety net without deposit insurance system forced big banks to bear uneven costs in the case of individual banks' financial distress.

5) See the MOF(1991: pp.376-378).

6) The principle of "one bank in one prefecture" was that the MOF did not allowed an increase in the number of banks locating their headquarters in a prefecture. Early in the postwar period, the MOF adopted this principle with a view to stabilizing the Japanese banking system. See the MOF(1991:

pp.95-98).

7) The Financial Reformation Acts of 1992 have made it possible for commercial banks to engage in trust banking business through their trust-bank subsidiaries. However, the scope of trust banking business opened for commercial banks' subsidiaries is restricted by the MOF's administrative guidance with a view to avoid giving destructive shocks to the present framework of the financial system.

8) See Teranishi(1982: pp.451-506).

9) See Horiuchi(1992).

10) See the MOF(1991: pp.76-79). Moreover, without public intervention, the market mechanisms would bring forth the rents effective to induce banks to perform efficient monitoring even under imperfect information. See Klein and Leffler(1981).

11) Hiroshi Tanimura(1955). His papers are collected in Federation of Regional Bankers Associations, Current Situation and Perspectives of Bank Administration (Ginko-gyousei no Genjo to Tembo), 1955.

12) The broadly defined capital contains not only the equity capital (book value), but also some items of reserves.

13) See the statistics presented by the MOF to the Council of the Japanese Financial System (Kinyu Seido Chosa-kai) filed in Gendai-Brein, Collections of Materials presented at the Council of the Japanese Financial System (Kinyu Seido Chosa-

kai Siryo-shu), 1977, p.268.

14) See Federation of Bankers Associations of Japan(1987: p.59).

15) See Cargill and Royama(1988: pp.114-120) and Horiuchi (1992). It should be noted that the MOF has very carefully controlled the speed of liberalization of domestic financial markets. For example, the MOF restricted the negotiability and the minimum denomination of CDs in order to prevent too rapid expansion of the new instrument in the financial markets. The MOF was afraid of the destructive impact of the new instrument on the status quo of the financial system.

16) Hoshi(1993) discusses the relationship between financial deregulation and structural changes in corporate finance in Japan from a perspective a little different from that adopted by this paper.

17) See Horiuchi(1994).

18) See Horiuchi(1989).

19) See Horiuchi(1994).

20) The data source is the BOJ, Economic Statistics Annual.

21) See Horiuchi(1995).

22) See Packer(1994).

23) In February 1994 the MOF announced another framework for dealing with non-performing loans, particularly those loans which lie outside the CCPC, i.e., banks loans to nonbank financial companies. Under this framework, banks are

permitted to create Special Purpose Companies (SPCs) which receive transfers of restructured loans in return for a specified number of shares in the new entity. The difference between the face value of the loans and the appraised market value of the share can be deducted by banks for tax purposes. Thus, ironically, organizations such as CCPC and the SPCs were originally necessary because the Tax Bureau of the MOF's rigorous tax treatment of troubled loans. In Japan, tax-free write-off of bad loans had not been allowed until a bankruptcy procedure had begun, or an excess of liabilities over assets had existed for at least two years.

24) See Weisbrod et al.(1992) and Herring and Vankudre(1987).

25) Kapstein(1991) makes an overview about evaluation of the current BIS rules.

26) With the financial liberalization proceeding, it has become difficult for the regulators to manipulate regulatory means with a view to favoring some financial institutions at the expense of the others. For example, the branch office, which used to be an important administrative tool, has lost its importance for banks' profitability.

27) The MOF entrust monitoring cooperative credit banks to individual prefectures where the banks are located. The agricultural cooperatives are supervised by the Ministry of Agriculture, Forestry and Fisheries. The regulators responsible for monitoring these financial institutions lack

sufficient ability, and tend to take "forbearance policy" even if they find some institutions in financial distress. For example, two credit cooperatives, Tokyo Kyowa and Anzen were merged into Tokyo Kyodo Bank under the BOJ's rescue plan in January 1995 because they were found to be in serious distress. However, they could continue to take a lot of deposits at interest rates higher than the normal level before stopping their businesses. It was reported that more than 80 percent of their deposits are large denominated time deposits from professional investors attracted by the higher interest rates. (Kinyu-Zaisei Jijo, No.2160 January 30, 1995, pp.42-43) This is a typical moral hazard. Out of six cases of troubled institutions listed in Table 9, four cases belong to the group of credit cooperatives. This is a serious defect in the regulators' monitoring system in Japan.

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Table 1: Changes in the number of branch offices, and deposits (Annual average: percent)

	City banks		Regional banks		Thrifts[a]	
Period	Branch	Deposits	Branch	Deposits	Branch	Deposita
1951-55	-0.1[b]	18.8[c]	4.4	14.5[c]	8.4[c]	19.4[c]
1956-60	-0.4	18.5	-0.1	20.0	4.0	24.3
1961-65	3.1	17.7	1.9	19.5	5.6	26.2
1966-70	1.1[d]	14.3	1.2[d]	15.4	3.1[d]	17.8
1971-75	0.9	17.2	2.7	18.3	3.3	20.3
1976-80	1.2	10.4	2.6	12.2	3.3	11.8

Notes: (a) The thrifts comprise the mutual loan and savings banks, the credit associations, and the credit co-operatives. They were all small-scale banks.

(b) In 1955, Nihon Kangyo and Hokkaido Takushoku were reclassified as city banks. This increased the number of city banks' branch offices abruptly by 230. The influence of this reclassification is adjusted for in this table.

(c) 1954-1955.

(d) In 1968, Nihon-Sogo, the largest of the mutual loan and savings banks at that time, was converted to a city bank. Saitama was converted from a regional to a city bank in 1969. The influence of these conversions are adjusted for in this table.

Sources: The Bank of Japan, Economic Statistics of Japan, and Economic Statistics Annual.

Table 2: An Example of Prudential Regulations
(As of January 1962)

(1) Loans/deposits ratio should be lower than 80%.

(2) Liquid assets/deposits ratio should be higher than 30%.

(3) Current expenses (excluding tax payment)/current revenue should be lower than 78%.

(4) Annual amount of dividends per share should be less than 12.5% of the face value of the share.

(5) The broadly defined capital/total deposits should be higher than 10%.

Source: MOF (1991: pp.185-186)

Table 3: The explosion of Japanese government debt, 1965-1990

End of fiscal years	Total National government debt	National government bonds outstanding (domestic)	Refunding bonds	Foreign currency bonds	Liability to Trust Fund Bureau
1950	554	240	-	100	2
1955	1,057	425	-	88	19
1960	1,340	446	-	81	41
1965	1,766	688	-	57	198
1970	6,226	3,597	-	54	504
1973	13,154	8,267	606	39	948
1975	22,795	15,776	1,677	33	2,677
1980	95,011	71,905	3,299	15	10,894
1985	163,571	136,610	24,295	1	16,188
1990	223,793	168,547	77,136	0	31,155

Unit: ¥billion.
Source: Bank of Japan, Economic Statistics Annual.

Table 4: Structure of fund-raising by big business and small-size business (Average, percent)

Big business (capitalized at more than ¥1.0 billion)

Periods	1970-1974	1975-1979	1980-1984	1985-1989
Internal funds	28.0	38.3	42.9	43.5
Borrowing	35.5	30.0	21.4	15.2
Trade credit	17.1	11.2	8.1	0.0
Securities issue	7.3	16.4	17.8	29.4
Bonds	3.0	6.8	5.0	12.8
Stocks	4.2	9.6	12.8	16.6

Small- and medium-size business

Periods	1970-1974	1975-1979	1980-1984	1985-1989
Internal funds	31.2	38.3	42.3	37.4
Borrowing	37.1	30.0	40.1	54.4
Trade credit	20.0	23.2	11.6	8.0
Securities issue	1.7	-0.5	-0.4	-11.1
Bonds	0.0	0.0	0.0	-5.4
Stocks	1.6	-0.5	-0.4	-5.6

Source: Ministry of Finance, Hojin-kigyo Tokei, various issues.

Table 5: Bank loans to small and medium-size firms

End of year	Total of loans (¥ trillions,A)	Loans to small and medium-size firms (¥ trillions,B)	(B/A) Percent
1968	28.8	9.6	33.4
1973	71.3	26.2	36.7
1978	118.1	49.2	41.6
1983	181.0	78.4	43.3
1988	288.2	153.0	53.1
1989	355.1	203.5	57.3

Source: The bank of Japan, Economic Statistics Annual.

Table 6: Major city bank loans to small and medium-sized firms
(Percentage in the total loans)

	March 1975	March 1985	March 1989
Daiichi-kangyo	32.5	51.6	66.0
Fuji	32.9	50.9	69.0
Sumitomo	35.0	51.4	73.0
Mitsubishi	33.4	54.1	68.7
Sanwa	39.3	54.0	73.2

Source:

Table 7: Banks' credit to manufacturing, real estate industry, and nonbank finance companies (percent)

Period average	To manufacturing	To real estate industry	To nonbank finance companies
1951-1960	49.0	0.6	n.a.
1961-1970	46.7	2.8	n.a.
1971-1980	35.7	5.9	n.a.
1981	34.8	5.7	3.5
1982	33.8	6.0	4.4
1983	31.9	6.4	5.5
1984	30.6	6.9	6.5
1985	28.8	7.7	6.8
1986	25.9	9.6	7.9
1987	22.5	10.2	9.1
1988	20.1	10.9	9.6
1989	20.5	11.5	9.5
1990	16.7	11.3	9.2
1991	16.0	11.6	8.7

Source: Bank of Japan, Economic Statistics Annual.

Table 8: Loans sold to the Cooperative Credit Purchasing Corporation (March 1993 - March 1994)

	Number of loans sold	Face value (¥billions) (A)	Appraised losses (¥billions) (B)	Claimed losses (¥billions) (A-B)	Claimed losses (% of face value)
2nd half of FY 1992	229	681.7	452.1	229.6	33.7%
1st half of FY 1993	510	1,180.0	602.9	577.1	48.9%
2nd half of FY 1993	1,381	2,654.2	1,176.0	1,478.2	55.7%
Total	2,120	4,515.9	2,231.0	2,284.9	50.6%

Source: Frank Packer, The disposal of bad loans in Japan: A review of policy initiatives, Paper presented at the conference, Current Developments in Japanese Financial Markets, Center for International Business Education and Research, University of Southern California, June 9-10, 1994.

Table 9: Financial assistance by Deposit Insurance Corporation

Troubled banks (Date)	EX post disposal	Amount
Toho Sogo (April 1992)	Absorbed by Iyo Bank	¥8 billion loaned
Toyo Shinkin (October 1992)	Absorbed by multiple banks after dissolved	¥20 billion given
Kamaishi Shinkin (October 1993)	Dissolved. Deposits were succeeded by Iwata Bank	¥26 billion given
Osakafumin Shinyo kumiai (November 1993)	Absorbed by Osaka Koyo Bank	¥19.9 billion given
Gifu Shogin Bank (March 1995)	Absorbed by Kansai Kogin Bank	¥2.5 billion given
Tokyo Kyowa Shinyo Kumiai and Anzen Shinyo Kumiai (January 1995)	The two banks are integrated into Tokyo Kyodo Bank sponsored by BOJ	¥40 billion given

Source: Federation of Bankers Associations of Japan, **Kin'yu**, various issues.