Silent Large Shareholders and Entrenched Bank Management: Evidence from the Banking Crisis in Japan

Masaharu Hanazaki*, Toshiyuki Souma, Yupana Wiwattanakantang***,**

**, ***Center for Economic Institutions, Institute of Economic Research, Hitotsubashi University, 2-1 Naka, Kunitachi, Tokyo 186-8603, JAPAN*
*** Faculty of Economics, Kyoto Gakuen University, Nanjo, Sogabe-cho, Kameoka, Kyoto 621-8555, JAPAN*

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Abstract

Since the beginning of the 1990s, Japanese banks became saddled with huge amounts of non-performing loans and a significant number of them have failed. We investigate the cause of this banking crisis that has jeopardized the stability of the financial and economic system. Following Hanazaki and Horiuchi (2001), we argue that the deficiency of effective corporate governance of banks in Japan has caused inefficient management. Our focus here is the role of largest shareholders who happen to be banks and insurers. We argue that these large shareholders appear to collude or conspire with management instead of being tough monitors. Consequently, the management became entrenched. Our empirical results show that during the 1980s these "entrenched banks" extended more lending. Even after the collapse of the bubble in the 1990s, they did not dramatically undertake restructuring to cope with the accumulated bad loans.

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*Corresponding author. E-mail: hanazaki@ier.hit-u.ac.jp.

1. Introduction

Japan's current banking problems, which are thought to be closely related to the economic downturn in Japan, began in the early 1990s and have festered and worsened throughout the 1990s (see for example Hoshi and Kashyap 1999; Kashyap 2002). This long duration and serious negative impact to the economy make it unique to Japan. Using a similar definition to that of the U.S., the NPLs for all banks were about ¥30 trillion in 1998-2000, which accounts about 5-6 percent of GDP (Table 1)[1]. The NPLs increased to about ¥32.52 trillion (around 6.5 percent of GDP) in March 2001, and jumped to about ¥42.03 trillion (around 8.88 percent of GDP) in 2002.

The bad loans problems have bankrupted 176 depository institutions during 1991-2001 of which 20 were banks. The peak of the bankruptcies was around late 1997 when five banks failed. Among them was a nationwide city bank, the Hokkaido Takushoku Bank, which was the first major bank to shut its doors since the end of the World War II. By this time, the problem in the financial sector became so acute that it endangered the viability of the entire financial system. A huge amount of funds including public funds has been used to cope with the banking problems. Since March 1998, the government has spent about ¥10 trillion. Another ¥20 trillion was also used by the Deposit Insurance Corporation (DIC) at the end of March 2001.

An abundant literature explores the causes of the banking crisis. There are at least four competing views. First, the accumulation of bad loans was due to the collapse of the asset price bubble due to macroeconomic policy mistakes (Takeda and Turner 1992; Hamada 1995). Second, the crisis was due to failure to create an effective system of banking regulation and supervision and safety net framework before adopting financial deregulation (Ito 1999; Patrick 1999; Milhaupt; 1999; Nakaso 2001; Hoshi 2002). Third, financial deregulation made good client firms shy away. Banks, therefore, turned to riskier industries in particular the real estate industry, and hence ended up with a huge amount of bad loans (Hoshi and Kashyap 1999). Fourth, a weak corporate governance mechanism is responsible for excessive risk taking by bank management (Horiuchi and Hanazaki (2001, 2003b, and 2003b)).

This paper investigates the argument of Horiuchi and Hanazaki. Specifically, we

[1] The information on NPLs is not available before 1998. Japanese financial institutions began to disclose comprehensively defined NPLs for the first time in March 1998.

argue that the competitive-restricting regulation regime implemented since the WWII through 1990s had created moral hazard problems in the banking sector. As banks were ensured that they faced little competition and would not let fail, their management had incentives to engage in excessive risk-taking activities. The moral hazard problems could have been controlled by either financial regulators or depositors. Unfortunately, financial regulators are not reliable monitors due to the principle-agency problem (Kane 1995). Besides, they were incompetent because they could not obtain the necessary information to verify banks' loan portfolios. This is due to the common practice in Japan in which the main banks bail out their client firms. The loan portfolios could be perfectly substantiated, if the information on whether or not the financially distressed firms to be bailed out could recover was known *ex ante*. Likewise, depositors are less likely to be tough monitors because they have been provided a blanket guarantee.

Perhaps, the only potential monitors in the Japanese banking system are large shareholders (see also Dinc 2003). In this paper, we investigate whether large shareholders are active or passive monitors. To identify the identity of large shareholders, we construct a unique dataset of bank ownership. Our focus is in particular the top three whom we believe own enough shares to have sufficient incentives to exert control. Our sample covers all banks for the period of 1980-2000. We find that insurers predominate as the top three shareholders of larger national wide city banks. As for smaller regional banks, their top three shareholders are dominated by insurers and national wide banks. Amazingly, the ownership structure has been stable over a long period of time. The ranking of the largest shareholders as well as the percentage of shareholdings have been stable for the 20 years of our sample period. To our knowledge, we are the first who investigate this issue empirically.

We argue that the largest shareholders (insurers and banks) are passive in disciplining bank management for the following reasons. First, both insurers and banks themselves appear to have weak corporate governance. As for insurers, there exists no control by shareholders as most of them are mutual companies owned by dispersed policyholders. There also exists no substitute mechanism e.g., the market competition, in both banking and insurance industries to force the management to be efficient (Hanazaki and Horiuchi 2001). Second, the monitoring incentives are worsen by the fact that insurers appear to receive some financial benefits from being non hostile to banks. These benefits are the opportunities to walk in to bank offices to sell insurance policies to the bank employees, which seem to be huge transactions.

Accordingly, we hypothesize that the management of banks with insurers and banks among the top three shareholders is likely to be entrenched, and hence perform poorer than other banks. Our results show that during the 1980s when the economy was booming the entrenched banks tend to overlend. The incentives to extend lending are probably attributable to the promotion system that was closely tied to the amount of loans officers were able to lend. During the economic downturn in the 1990s, however, entrenched managers did not terminate lending and did not dramatically undertake restructurings. These results support our argument that large shareholders were passive in governance of banks in Japan.

Along with other ongoing literature, our results highlight one important issue in corporate governance that the identity of large shareholders does matter. More precisely, when the largest shareholders are in the financial sector, in particular insurance and banking, they appear to be not tough. Our findings are in line with Morck et al. (2000) who investigate the role of large shareholder activism in Japanese firms. They document that bank ownership is negatively related to firm value. In contrast, corporate shareholders appear to be tougher as monitors and are beneficial to the firms (Morck et al. 2000; Yafeh and Yosha 2003).

The rest of this paper is organized as follows. In Section 2 we describe the institutional backgrounds. In Section 3 we present the unique ownership structure of banks and develop testable hypotheses. Section 4 reports the main results. Section 5 concludes.

2. The Institutional Background: A Review of Governance Structure of Banks in Japan

In this section, we discuss the regulatory environment that creates incentives for bank managers to engage in high risk lending practices. In addition, we show that the corporate governance structure of banks is weak. None of the mechanisms that are supposed to curtail the moral hazard problems appear to be effective. We argue that these institutional frameworks provide autonomy to bank management.

2.1 The Comprehensive Safety Net System

The banking system during the post-war period and until the mid of the 1990s was operated under the competition-restricting regulation environment and the status quo was protected under the so-called "convoy system" (Patrick 1999; Spiegel 1999; Hoshi 2002; Hanazaki and Horiuchi 2003a among others). Under this system, banks were ensured that *de facto* there would be no competition, and they would grow roughly at the same rate. This was achieved via regulatory measures such as controlling interest rates, fees and financial products, dividing business lines and branch restrictions, and restriction on new entry to the banking and financial business (Hamada and Horiuchi 1986; Hoshi 2002; Van Rixtel 2002).

In addition, an extensive safety net was established to prevent bank failures. Under this approach, the Ministry of Finance (MOF) arranged for stronger banks to absorb insolvent banks by assuming the liabilities and assets of the insolvent banks (Hoshi 2002). In some cases, the MOF placed its officials on the board of the failing bank to signal its commitment of not allowing the bank to fail. At other times, the Bank of Japan injected special loans to trouble banks to prevent systematic bank failures (Hanazaki and Horiuchi 2002).

In effect, the comprehensive safety net that ensures no failure had created acute moral hazard problems (Kane 1993; Patrick 1999; Hanazaki and Horiuchi 2003a). In addition, the absence of competition implies that there exists no force to discourage bank management from fraudulent activities (see Allen and Gale 2000). The "no failure policy," however, was *de facto* terminated around the first half of the 1990s (Nakaso 2001; Hoshi 2002; Hanazaki and Horiuchi 2003). Some troubled banks ended up being allowed to fail. The conventional safety net was replaced by a deposit insurance system that was developed to be more comprehensive (Milhaupt 1999; Nakaso 2001). Even though one city bank, the Hokkaido Takushoku Bank was allowed to fail in 1997, it still appears that the current policy follows the too-big-to-fail policy (Van Rixtel et al. 2003). In principle, the too-big-to-fail policy creates the moral hazard problems in a similar manner to the no failure policy.

2.2 Depositors as (Passive) Monitors

Depositors' position has been secured via the deposit insurance system that was

formally established in 1971. The system has been equipped with a means of paying off insured deposits up to a prescribed limit for each depositor of a failed bank. However, *de facto* the MOF had provided a blanket guarantee, which was formally made official in 1996 ((Hanazaki and Horiuchi 2001; 2003a). As widely recognized, the presence of a blanket guarantee removes any incentive that insured depositors and creditors have to control bank management (Merton 1977; Keeley 1990). Their funds are fully protected regardless of the outcomes of the investment strategies that the management chooses.

2.3 The Financial Regulators: Monitor or Collude with the Management?

Ideally, under a regulated financial system, the financial authority could act as monitors who conduct the monitoring necessary to prevent the management from fraud and self-dealing (see Black et al. 1978; Dewatripont and Tirole 1994). However, as contended by Kane (1995), regulators may not be credible monitors because of the principal-agent problem between regulators, banks, and taxpayers.

In the Japanese context, Hanazaki and Horiuchi (2003a and 2003b) argue that regulatory monitoring in Japan had never been effective for the following two reasons. First, the financial authority faced little pressure from taxpayers because not only they are not well informed, but also have less incentive to monitor. Not until March 1998 when public funds of almost ¥2 trillion were used for the first time to rescue financially distressed financial institutions did taxpayers seem to fully realize that they had been bearing the costs of all the bail-outs.

Second, the regulators were not competent because they did not have inspection expertise. This seems to be one of the reasons why the MOF, who had been responsible for overseeing bank management for decades, was replaced by a new regulatory agency, the Financial Supervisory Agency, in June 1998. In addition, the financial regulators do not have precise information of banks' loan portfolios which is very crucial for making a precise assessment of the soundness of a bank's management. The opacity of the loan portfolios is mainly due to the common practice of bailing out financially distressed client firms by the main banks. If the emerging rate of the bailed out firms from a financial distress were known *ex ante*, one could perfectly obtain the precise figures of NPLs and hence could verify the information on Japanese bank loan portfolios.

We are also skeptical about the argument that banks were disciplined via the *amakudari* system. (Aoki et al. 1994) This system is a practice of having high ranked retired

officers of the Bank of Japan and MOF on the bank management team. In fact, Horiuchi and Shimizu (2001) and Van Rixtel (2002) find that banks with *amakudari* have lower capital adequacy ratio and higher NPLs. They conclude that it is a sort of collusion between banks and officials. By adopting a policy of forbearance towards them, the regulators receive job opportunities for retired officials in return.

2.4 Large Shareholders

Perhaps the only potential monitors who have the incentive to discipline bank management are large shareholders as they own sizable shares, and hence would bear the bankruptcy risk (Demsetz 1983, 1986; Shleifer and Vishny 1997). To investigate whether large shareholders are indeed potential effective monitors, one needs to understand the structure of ownership and control of banks. Unlike non-financial corporations on which extensive research exists, we know very little about ownership and control of banks in Japan.

3. Ownership and Control of Japanese Banks

In this section, we identify the largest shareholders and the degree of ownership concentration. This information is crucial in determining the degree of large shareholder activism, their objectives and skills in disciplining bank managers (Demsetz and Lehn 1985; Barclay and Holderness 1989; Shleifer and Vishny 1997; Demsetz and Villalonga 2001).

3.1 Sample and Data Sources

Our sample consists of all listed banks in Japan which are classified in the following categories: nationwide "city" banks, long-term credit banks, trust banks, regional banks and second tier regional banks. The period of study is 1980-2000 which represent both pre and post bubble periods. As there were mergers and bank failures during this period, this panel data is unbalanced over the years. The sample includes 93-118 banks.

We manually collected the ownership data from a rich data source, the *yukashoken hokokusho* (company annual report), which is published in Japanese annually by the Ministry of Finance. The ownership data includes the information on the top ten shareholders as of the end of a fiscal year which is March. We also collect the financial data from the same data source.

3.2 Ownership Structure: Who Owns Banks in Japan?

The aggregate shareholdings of banks for the period of 1980-2000 are shown in Figure 1.1. Financial institutions including banks, security firms, life and non-life insurers hold the largest fraction of banks' shares. Their shareholdings have been increasing over time. Specifically, financial institutions held about 37 percent of banks' shares in 1980. Their shareholdings gradually increased to 42 percent in 1990 and to 44 percent in 2000. The second largest group of shareholders has been domestic corporations. Their shareholdings have been quite stable (around 30 percent) over the 20 years. Individuals are the third largest groups of shareholders. They have gradually reduced their investment in banks' shares. In 1980, they held about 31 percent of the shares. By 2000, their shareholdings declined to be about 24 percent.

Interestingly, the structure of shareholdings of banks is different from that of manufacturing firms shown in Figure 1.2. In this figure, we include all listed manufacturing firms (1729 firms). In contrast to banks, the fraction of shares of manufacturing firms held by financial institutions have been declining substantially from about 35 percent in 1991 to about 24 percent in 2000. Individuals, in contrast, have increased their shareholdings significantly during the mid of the 1990s from about 30 percent in 1995 to about 39 percent in 2000.

Next, we investigate who are the top shareholders and the fraction of shares they own. Panel A of Table 2 presents the mean percentage of banks' shares held by the top one, three, five, and ten largest shareholders. In Panel B, we provide the same statistics for the manufacturing firms for comparison. In general, our results reveal that the degree of ownership concentration in the banking industry is relatively stable. For example, the average shareholdings by the largest shareholder are about 5.3 percent in 1980, 5 percent in 1990 and 7.7 percent in 2000. The average shareholdings by the three largest shareholders are about 13.1 percent, 12.7 percent, and 14.7 percent in 1980, 1990, and 2000, respectively. The average shares held by the top five largest shareholders are around 18 to 20 percent over 1980-2000.

The ownership concentration is by far higher for manufacturing firms. The average shareholdings by the largest shareholder ranges from 18.8 percent in 1991 to 21.4 percent in 2000. The mean shareholdings by the top three and top five largest shareholders are about twice the degree of concentration for banks (see also Prowse 1992). We will discuss some explanations to this phenomenon after identifying who are the largest shareholders.

Table 3 highlights interesting stylized facts on the identity of the top three shareholders. The choice of the cut-off at the top three is due to the monitoring incentive argument (Shleifer and Vishny 1997). We think that the top three shareholders own enough shares to have sufficient incentives to exert corporate governance (see Table 2). The equity holdings by the forth and fifth largest shareholder, however, are too small. They own less than three percent of outstanding shares. Conversely, the top three shareholders can also be detrimental to the bank value if they enable bank managers to become entrenched.

We find that insurers, in particular, life insurers and banks, dominate the top three shareholders. Statistically, the proportion of banks with insurers and banks appearing among the top three shareholders is 41.9 percent, 55.1 percent, and 53.3 percent in 1980, 1990 and 2000, respectively. In all periods, the percentage of these shareholders is greater in larger nationwide banks (city banks, long term credit banks and trust banks) than in smaller regional banks (banks and second tier regional banks). Specifically, in all periods more than a half of the nationwide city banks (54.5 percent, 63.6 percent, and 64.3 percent in 1980, 1990 and 2000, respectively) have insurers and banks as the top three shareholders. As for regional banks and second tier regional banks, insurers and banks are among the top three shareholders in 38 percent, 53.1 percent and 51.6 percent of the banks in 1980, 1990 and 2000, respectively.

Other groups of investors that appear among the top three shareholders are finance and security companies, corporations, the bank's investment fund held by its employees, foreign institutional investors, and individuals. The fraction of banks in our sample that do not have a single bank and insurer among the top three shareholders is very small. Specifically, there are only about 3.2 percent, 3.4 percent and 0.9 percent of them in 1980, 1990 and 2000, respectively.

Our investigation also shows that city banks and other types of banks are owned by different groups of investors. More precisely, until the wave of the mega mergers in 2000, the principal top three shareholders of city banks had been almost only life insurance companies. The only two exceptions are the Tokai Bank (in which the Toyota Motor Corporation has been its largest shareholder), and the Daiwa Bank (in which the Osaka Gas Enterprise had been its largest shareholder until the end of the 1980s, and later on Nomura Securities took the place).

We also find that the ownership structure is very stable in such a way that with two exceptions all the nationwide city banks have the same investor as their largest shareholder.

The two exceptions are the Daiwa Bank and the Hokkaido Takushoku Bank. In the Daiwa Bank, the largest shareholder changed once around the end of the 1980s. In the case of the Hokkaido Takushoku Bank, the ownership structure changed significantly mainly due to financial distress around the mid of the 1990s before the bank went bankrupt.

Another interesting finding is that in many city banks the same insurers have taken positions as the largest, second largest, and third largest shareholders over the 20 years under our investigation. Out of the total 13 city banks, the bank that had the most stable ownership structure is the Sanwa Bank. Amazingly, the ranking of its top three largest shareholders remained the same over 1980-1998 before it merged with the Tokai Bank and the Toyo Trust and Banking Corporation to become the UFJ Bank in April 2001. In three banks, the ranking of the top three shareholders was not changed at all until the mergers occurred. Among them is the Bank of Tokyo. In five banks, the ranking of the top three had remained stable until the mid of the 1990s when the banking crisis occurred. The financial distress is probably responsible for the changes in the ownership structure.

In regional banks and second tier regional banks, however, insurers are relatively less important as the top three shareholders. Insurance companies alone only appear in about 5-6 percent of the banks. Nationwide banks appear more often among the top three shareholders. Statistically, nationwide banks alone were among the top three shareholders in 15.5 percent, 20.8 percent and 20.4 percent in 1980, 1990 and 2000, respectively. The combination between banks and insurance companies among the top three shareholders is more dominant, appearing in 16.9 percent, 27.1 percent, and 24.7 percent in 1980, 1990 and 2000, respectively.

It is important to note that the relatively low concentrated shareholdings in banks are probably due to the regulatory environment. Until 1987, the anti-monopoly regulations restricted shareholdings by a single bank as well as insurers to no more than 10 percent of a single firm. For banks, the limit has since been lower to 5 percent.

In summary, insurance companies and banks dominate the top three shareholder positions of banks. The ownership structure is unique in that the shareholdings are quite stable The ranking of the largest shareholders and their shareholdings have remained more or less the same for at least two decades.

3.3 Large Shareholder: Active or Silent?

The stable ownership structure implies that banks might have established close

relationships with their largest shareholders. As information asymmetries are likely to be mitigated by having such close ties, the largest shareholders could be effective monitors. However, we are skeptical about such arguments. In our view, both insurers and banks are not trustworthy as monitors for they have weak corporate governance hence have plenty of slack to pursue non value-maximizing policies. Komiya (1994) goes so far as to suggest that the management maximizes the wealth of the current employees. In addition, insures appear to lack of monitoring incentives and perhaps lack of monitoring expertise as well.

Similar to the banking industry, the insurance industry had been regulated (see Hoshi and Kashyap 2001). For example, insurance premiums were determined by the MOF and were made standard among all companies until the Big Bang deregulation in 1996. The ranking of the top insurers had remained unchanged over a long period of time, which is thought of have been fixed by the MOF. For example, in the life insurance industry, the top two have been the Nippon Life Insurance Company and the Dai-ichi Life Insurance Company. In effect, the market pressure did not exist to force insurers to be efficient. More importantly, like banks, no insurance companies were allowed to go bankrupt. Hence, like the banking industry, the moral hazard problems were created by regulations, and were not efficiently constrained by the financial authority.

In addition, weak corporate governance is contributable to the equity and debt structures. Regarding the equity structure, almost all of the insurers, and in particular life insurers that dominate the market, are mutual companies. Statistically, as of March 2000, 14 out of 46 life insurance companies are mutual companies. These fourteen companies, however, are so large that they share about 94 percent of the total assets (Shikano 2001). The residual owners of these mutual insurance companies are the policyholders. As the policyholders are to a large extent dispersed individuals, they are less likely to have strong monitoring incentives. Regarding the debt structure, as insurers are only allowed to issue subordinate bonds, they face less pressure from creditors.

There is an important transaction that probably limits the incentive to be tough monitors. It appears that banks probably allow insurers who are their large shareholders to send sales representatives inside their offices to sell insurance policies to the banks' employees. The opposite case is apparent as well. For example in 1988 when the Asahi life Insurance Company sold out its shareholdings of the Industrial Bank of Japan, the contracts held by the banks' employees vanished (see Komiya 1994). Given that the size of banks is relatively large, this transaction should be substantial. However, as insurers are not listed

companies, there is no statistic evidence showing how valuable this transaction is. We think that these transactions may be more worthwhile to insurers than the capital gains and dividends received as shareholders. These benefits could be so large that they might cancel out the monitoring incentive (see also Komiya 1994; Fukao 2001).

In addition, insurance companies turned out to rely on banks for funding since they have been in financial troubles starting around the latter half of the 1990s. Fukao (2001) shows that as of March 2000, banks provided about ¥2.3 trillion of subordinated credit and surplus notes to life-insurance companies. Life-insurance companies in turn provided ¥6.7 trillion of subordinated credit to banks while also holding another ¥7.7 trillion of banks stocks.

The following incidence is consistent with our argument that insurers were not tough on the management. Around the end of the 1980s immediately after the BIS capital adequacy regulation came into effect, many banks could not meet the standard and needed to increase their capitals. Instead of being tough on poorly performing banks, insurers rescued them by buying their subordinate debts. These measures were directed by the government, however (see Hanazaki and Horiuchi 2003a).

Similarly, we also argue that nationwide banks might not be active monitors who discipline the (regional or smaller) banks in which they own large equity positions. It also appears that implicit agreements exist in the banking industry that they would not interfere with each other management. Our argument is also consistent with the findings of Morck et al. (2000) that the equity ownership by banks is negatively related to performance of non-financial firms they own.

Following the literature, we argue that weak corporate governance affects managerial risk taking behavior positively (Saunders et al. 1990; Gorton and Rosen 1995; Knopf and Teall 1996; Anderson and Campbell 2000). Accordingly, we hypothesize that:

Hypothesis 1: Management of banks in which insurers and banks appear among the three largest shareholders is entrenched, and hence the banks perform poorer than other banks.

Further, we argue that lending strategies employed by the entrenched managers are dependent on economic conditions. During good times when banks have abundant resources, entrenched managers are likely to extend loans aggressively as well as make investments that are beneficial to managers themselves (Shleifer and Vishny 1989; Jensen 1993; Dinc

2003). In the Japanese bank context, the incentives of increasing loans are partly attributable to the promotion system. For loan officers, until recently, the performance evaluation was based on the ability to extend lending, not on the loan performance. The amount of lending was crucial in particular to senior officers who aim to be promoted to the top executive level, which is the highest achievement in their career. To achieve this, senior officers have to gain support not only from the incumbent top executives but also from their junior colleagues. Favors to junior colleagues could be done by establishing new branches so that their junior colleagues could also have the chances of getting promotion to become branch heads. To create a demand for new branches, they had to extend more loans.

However, when investment opportunities deteriorated during bad times, entrenched managers are likely to make poor decisions regarding investment and restructuring (Gorton and Rosen 1995; Boot 1992)). In fact, incumbent managers during the 1990s appear to play the wait-and-see game hoping that bad loans would be recovered when the economy picked up. The intention was probably to avoid taking the responsibilities since the disposition of bad loans was likely to reduce the capital bases substantially to below the BIS standard. In contrast to other OECD countries, Hanazaki and Horiuchi (2003b) find that Japanese banks did not significantly reduce employment, staff costs, and branches during the first half of the 1990s even though they had performed poorly. We argue that incumbent managers were able to delay taking drastic restructuring policies because there was not much pressure from large shareholders. Accordingly, our next testable hypotheses are as follow.

Hypothesis 2.1: During good times, entrenched banks extend loans aggressively.

Hypothesis 2.2: During bad times, entrenched banks delay taking restructuring measures.

We split the sample period into two distinct periods: 1980-1991 and 1992-2000, inclusive. The period 1980-1991 is characterized as a good period from the fact that the Japanese economy was booming. It is also considered as the period with substantial regulatory restrictions. The period from 1992 to 2000 is classified as bad times after the collapse of the bubble economy. It is also considered as the one with decreased regulatory constraints.

4. Empirical Analysis

In this section, we test the hypotheses discussed in Section 3. First we examine

whether the top three largest shareholders allows managers of the banks they own to become entrenched. Then, we check whether entrenched managers take different strategies regarding lending.

4.1 Performance of Entrenched Banks

Following the literature, we use four alternative measures of performance: the ratio of ordinary income (income before tax and before extraordinary gains and losses) to total assets (ROA), the pretax returns on equity (ROE), the BIS ratio of net worth to total assets (capital-adequacy ratio), and the ratio of NPLs to total loans outstanding (NPL ratio). The capital-adequacy ratio and the NPL ratio also indicate the level of risk taking. Higher capital-adequacy ratio implies lower risk taking and hence better performance. In contrast, a higher NPL ratio implies higher risk taking and poorer performance.

Some remarks on the data on the NPLs should be made. The NPL used here is based on the "risk management loans," which are published by individual banks on their financial statements. The data is available from FY 1992 onwards. The definitions, however, are different from period to period. From FY 1992 to FY 1994, the NPLs only include the loans to borrowers in legal bankruptcy and past due loans in arrears by 6 months or more. From FY 1995 to 1996, the NPLs were extended to include loans whose interest rate had been lowered below the original contract level. From FY 1997 to FY 2000, past due loans in arrears by 3 months or more and restructured loans were also included (see the website of the Financial Services Agency at http://www.fsa.go.jp/).

Table 4 shows the results of the univariate analysis on the effects of the three largest shareholders on performance. The results support our hypothesis that banks that have insurers and banks as their top three shareholders have poorer performance than other banks. This finding implies that insurers and banks as large shareholders do not monitor, but instead collude with the bank management and enable them to be entrenched. Specifically, the entrenched banks have the mean ROAs of 0.47 percent and -0.05 percent during the period of 1980-1991 and 1992-2000, respectively. These ROAs are significantly lower than those of non-entrenched banks of 0.51 percent and 0.07 percent during the period of 1980-1991 and 1992-2000, respectively.

We also find similar results when we use the ROE. During the period of 1980-1991, the mean ROE of entrenched banks is 16.54 percent. It is not significantly different from that of the non-entrenched banks which is 16.69 percent, however. Interestingly, during

1992-2000 the entrenched banks were in the red based on the ROE (-3.39 percent). The non-entrenched banks, on the other hand, had a positive ROE of 2.33 percent and the difference in the ROE is statistically significant at the 5 percent level.

Furthermore, we find that the entrenched banks appear to take higher risk than non-entrenched banks using the two measures of risk and hence performance. The entrenched banks have lower capital-adequacy ratio than the non-entrenched banks, as well as have higher NPL ratio for both periods. The difference, however, is significant only in the case of the combination of the capital-adequacy ratio and the period of 1980-1991. In any case, the results imply that entrenched banks took excessive risk, in particular during the good times.

4.2 Entrenched Banks and Lending Behavior

In this Section, we draw the regression models to be used to analyze lending patterns of the entrenched banks against non-entrenched banks. Specifically, we test whether entrenched banks lend aggressively during good times, and still continue extend lending even during bad times when lending opportunities are rare and hence were supposed to cutoff loans. To assess this issue, we estimate the percentage change in total loan outstanding (*Loans*) on a dummy variable representing entrenched banks (*Entrenched Banks*) and other control variables.

A number of control variables are included in the model to control for the characteristics of banks as well as the state of the economy. First, we control for the characteristics of their client firms, in particular real estate firms. The lending to the real estate industry is regarded as one of the major industries which received huge loans during the bubble periods. A substantial part of these loans turned out to be non-performing in the 1990s. To capture this effect, we include the percentage change in the ratio of lending to the real estate industry to total loan outstanding (*Real Estate Loans*). Second, we also control for profitability using the ratio of ordinary income (income before tax and before extraordinary gains and losses) to total assets (*ROA*). As profitability increases a bank's cash flow, it improves the lending capacity.

Third, we include three dummy variables to control for the effects of types of banks. These dummies are nationwide city banks, long-term credit banks, and trust banks. The benchmark banks hence are regional banks and second tier regional banks that operate locally. In other words, these three dummies capture the size and business line effects (see

Hoshi and Patrick 1999).

Forth, we control for the business cycle effects by including real annual GDP growth rate at the 1995 price (*GDP*). Finally, to control for the land price bubble effects we include the percentage changes in land price indices for city areas (*Land Prices*). Also, note that the lending practices of banks in Japan appear to be not project evaluation based, but to a large extent based on the assessment of land collateral. This variable captures the land collateral effect as well.

Specifically, the loan equation can be elaborated as follow.

$$(1) \quad Loans_{it} = f(Entrenched\ Banks_{it}, Profitability_{it}, City\ Banks_{i}, Long\ Tterm\ Credit\ Banks_{i}, Trust\ Bank_{i}, Real\ Estate\ Loans_{it}, GDP_{t}, Land\ Prices_{t}\ Trust\ Banks_{i})$$

where the subscripts *i* and *t* indicate bank i and time t, respectively.

To address the potential endogeneity effect that profitability and lending may be simultaneously determined, we estimate a simultaneous equation system of loans and performance. The profitability equation is specified as follows.

$$(2) \quad Profitability_{it} = f(Loans_{it}, Entrenched\ Banks_{it}, Branches_{it}, Employees_{it}, Staff\ Costs_{it}, City\ Banks_{i}, Long\ Tterm\ Credit\ Banks_{i}, Trust\ Bank_{i}, Real\ Estate\ Loans_{it}, GDP_{t}, Land\ Prices_{t}, Branches_{it} \times Entrenched\ Banks_{it}, Employees_{it} \times Entrenched\ Banks_{it}, Staff\ Costs_{it} \times Entrenched\ Banks_{it})$$

where *Branches* and *Employees* are the percentage change in the number of branches, and the number of employees, respectively. *Staff Costs* are the percentage change in the sum of wages and salaries over total operation expenses.

The summary statistics of all the variables in the two equations are shown in Table 4. We run the simultaneous equations of the two models using the two-stage least square (*2SLS*) estimation method with random effects. In the first stage, the profitability model (equation (2)) is regressed to obtain the fitted values. In the second stage, we use the fitted value of profitability as the instrumental variable of the profitability, and then run a regression of equation (1).

The regression results of the 2SLS estimation are presented in Table 6. Panel A and B present the results for the period of 1981-1991 (good times) and 1992-2000 (bad times),

respectively. The estimated coefficients on the dummy *Entrenched Banks* have positive sign as expected in both periods (Specification (1)). The coefficients are strongly significantly at the 5 percent level. The results are consistent with our hypothesis that compared to non entrenched banks, entrenched banks extended more loans during good times. The loans were not terminated, but still continued growing even after the bubble collapsed. This effect has a larger magnitude for the period of 1981-1991. Ironically, the regression results indicate that compared to non entrenched banks, entrenched banks extended on average 6.98 percent more loans during the 1981-1991 period. During the period of 1992-2000, the loans made by the entrenched banks were on average 2.51 percent more than non entrenched banks.

The estimated coefficients on *Real Estate Loans* turn out to be statistically insignificant for the period of 1981-1991. During the period of 1992-2000, however, the estimated coefficient on *Real Estate loans* is negative and significant. The insignificant estimated results are inconsistent with the conventional view that Japanese banks aggressively extended more loans to the real estate industry in particular in the 1980s. Rather, the results indicate that in general banks cut the lending to real estate firms after the bubble collapsed. In addition, we investigate further whether or not the entrenched banks extended more loans to the real estate industry. To examine this prediction, we include the interaction term between the dummy *Entrenched Banks* and *Real Estate loans* in the both the loan and profitability models. The estimated results are shown in Specification (2). No significant results are observed, however.

The estimated coefficients on the proxy for profitability are positive as expected and strongly significant in all the models. This evidence suggests that profitable banks appear to have the slacks to lend more in all the periods.

Regarding the types of banks, while the estimated coefficients on the dummy variable *City Banks* are strongly significant at the 1 percent level, the estimated coefficients on *Long Term Credit Banks* are weakly significant at the 10 percent level. The results imply that compared to regional banks, city banks and long term credit banks appear to extend more loans during the good times. Ironically, loans made by city banks and long term credit banks grew about 16 percent and 21 percent more than regional banks, respectively. The estimated results of the two bank dummies, however, turn out to be statistically insignificant for the period of 1992-2000. In contrast, the lending behaviors of trust banks appear to be different. For the period of 1981-1991, the estimated coefficients on *Trust Banks* are positive and significant at the 10 percent level. This empirical evidence implies that trust banks

extended less loans compared to regional banks. However, during the bad times the estimated coefficients on *Trust Banks* are positive and strongly significant at the 1 percent level. The estimated results suggest that trust banks lent approximately 15 percent more than regional banks.

Finally, we find that the growth rate of the economy (GDP) affects loans negatively during good and bad times. We do not have good explanation for this finding, however.

4.3 Discussion: *Keiretsu* Relationships and Japanese Banks

We are aware that the ties among *keiretsu* firms are important in Japan. However, we believe that the *keiretsu* issues are not relevant as far as banks are concerned as there is no cross ownership tie between their largest shareholders and the banks. In other words, the cross-shareholdings that are prevalent in many *keiretsu* firms do not exist in the top shareholder level. As show in Section 3, similar to other banks, the top three shareholders of the so-called *keiretsu* banks, which are among the city banks, apparently had also been insurers. Among these insurers, one of them has always been the insurer who is affiliated to a *keiretsu* in which the bank belongs to. Note that this *keiretsu* membership is defined according to their membership of the six *keiretsu* presidential clubs. However, since the major insurers are mutual companies, they are not tied to any of the *keiretsu firms* in the same group via ownership. So, compared to business groups in emerging economies, the ties between *keiretsu* firms are much looser (Khanna and Yafeh 2002). Family does not appear as ultimate controlling shareholder. In addition, there is no centralized decision making mechanism. Accordingly, we also doubt that the interests of the insurers are aligned with those of the banks they own shares simply because they are affiliated to the same group and join the same presidential club.

5. Conclusion

Our analysis supports the argument of Hanazaki and Horiuchi (2002 and 2003) that in the banking industry, large shareholders do not play a role in monitoring managers. The large shareholders who apparently are banks and insurance companies turn out to collude or conspire with management. Consequently, the management might become entrenched as they are shielded from being monitored by outsiders. Our empirical results indeed show that during the 1980s these "entrenched banks" extended more lending, and after the collapse of the bubble they did not dramatically cut off the loans to cope with the accumulated

non-performing loans.

An extension may be done by examining other restructurings including downsizing, employee layoffs, and salary cuts. In addition, it may be worthwhile to investigate whether the financial authority has bee active in monitoring bank managers.

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Table 1: Risk Management Loans

Risk management loans is defined as loans to borrowers in legal bankruptcy plus past due loans in arrears for at least 6 months plus loans in arrears for 3 to 6 months and plus restructured Loans. The data sources are the Ministry of Finance, Financial Supervisory Agency/ Financial Services Agency.

(Unit: Yen trillion)

	End March 1998	End March 1999	End March 2000	End March 2001	End March 2002
City banks					
(a) Total Loans	2,656,560	2,494,670	2,414,690	2,389,450	2,256,850
(b) Risk Management Loans	128,190	128,840	120,480	128,950	211,800
(b/a: %)	(4.83)	(5.16)	(4.99)	(5.40)	(9.38)
(c) Allowance for Possible Loan Loss	86,380	61,750	51,050	48,520	66,440
(c/b: %)	(67.38)	(47.93)	(42.37)	(37.63)	(31.37)
Long-term Credit Banks & Trust Banks					
(a) Total Loans	1,002,100	707,180	750,770	746,430	675,380
(b) Risk Management Loans	91,590	73,660	77,240	63,860	64,460
(b/a: %)	(9.14)	(10.42)	(10.29)	(8.56)	(9.54)
(c) Allowance for Possible Loan Loss	49,630	30,830	25,730	20,870	20,130
(c/b: %)	(54.19)	(41.85)	(33.31)	(32.68)	(31.23)
Regional Banks & Second Tier regional banks					
(a) Total Loans	1,872,590	1,864,170	1,796,270	1,806,010	1,800,190
(b) Risk Management Loans	77,800	93,770	105,940	132,340	144,020
(b/a: %)	(4.15)	(5.03)	(5.90)	(7.33)	(8.00)
(c) Allowance for Possible Loan Loss	42,140	55,390	45,520	46,160	46,960
(c/b: %)	(54.16)	(59.07)	(42.97)	(34.88)	(32.61)
Total of All Banks					
(a) Total Loans	5,531,250	5,066,020	4,961,730	4,941,890	4,732,420
(b) Risk Management Loans	297,580	296,270	303,660	325,150	420,280
(b/a: %)	(5.38)	(5.85)	(6.12)	(6.58)	(8.88)
(c) Allowance for Possible Loan Loss	178,150	147,970	122,300	115,550	133,530
(c/b: %)	(59.87)	(49.94)	(40.28)	(35.54)	(31.77)

Table 2: Ownership Concentration

This table presents the percentage of shares held by the ten largest shareholders. The data is as of the end of a fiscal year (March). Data sources are the *yukashoken hokokusho* (Company Annual Reports), various issues.

Panel A: Banking Industry

(Unit: %)

Fiscal Year	Top 1	Top 3	Top 5	Top 10	No. of banks
1980	5.3	13.1	18.7	28.5	93
1985	5.1	12.9	18.7	28.9	101
1990	5.0	12.7	18.5	28.8	118
1995	5.4	13.1	19.1	29.7	117
2000	7.7	14.7	20.1	29.5	107

Panel B: Manufacturing Industry

(Unit: %)

Fiscal Year	Top 1	Top 3	Top 5	Top 10	No. of companies
1991	18.8	30.2	37.5	49.0	1,227
1995	19.9	31.3	38.3	49.2	1,309
2000	21.4	33.8	40.8	51.2	1,729

Table 4: Univariate Analysis: Ownership Structure and Performance

This table shows the univariate tests of mean performance of the two groups of banks classified according to the ownership structure. Entrenched banks are banks in which all the top three largest shareholders are insurance companies and banks. Otherwise, they are non entrenched banks. ROA is the ratio of ordinary income (income before tax and before extraordinary gains and losses) to total assets. ROE is the pretax returns on equity. Capital-adequacy ratio is the BIS ratio of net worth to total assets. The NPL ratio is the ratio of NPLs to total loans. Mean differences are tested using the t-test. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

	Period	Entrenched Banks	Non-Entrenched Banks
ROA (%)	1980~ 1991	0.467***	0.513
	1992~ 2000	-0.045**	0.072
ROE (%)	1980~ 1991	16.535	16.693
	1992~ 2000	-3.388**	2.333
Capital Adequacy Ratios (%)	1988~ 1991	9.048*	9.316
	1992~ 2000	9.725	9.871
NPL ratio (%)	1992~ 1994	1.264	1.132
	1995~ 1996	3.834	3.325
	1997~ 2000	5.653	5.439
No. of banks	1980	39	54
	1990	65	53
	2000	57	50

Table 5: Summary Statistics

Loans is the percentage change in total loan outstanding. *ROA* is the ratio of ordinary income (income before tax and before extraordinary gains and losses) to total assets. *Real Estate Loans* is the percentage changes in the ratio of lending to the real estate industry to total loan outstanding. *GDP* is real annual GDP growth rate at the 1995 price. *Land Prices* is the percentage change in land price indices for city areas. *Branches* and *Employees* are the percentage change in the number of branches, and the number of employees, respectively. *Staff Costs* are the percentage change in the sum of wages and salaries over total operation expenses.

	Mean		Median		S.D.		Max		Min	
	1981-1991	1992-2000	1981-1991	1992-2000	1981-1991	1992-2000	1981-1991	1992-2000	1981-1991	1992-2000
Loans	9.946	1.604	9.248	1.161	6.870178	9.951875	97.958	170.429	-21.961	-23.526
ROA (%)	0.513	0.006	0.495	0.213	0.184079	0.8260457	1.383	0.899	-0.812	-13.076
Real Estate Loans	4.644	2.452	3.960	2.136	11.99152	7.375068	130.948	54.409	-26.421	-32.062
GDP	4.074	1.314	4.100	0.900	1.392491	3.537784	6.400	3.300	2.400	-0.700
Land Prices	7.171	-4.226	7.140	-4.360	3.538	1.120948	14.160	-1.810	2.710	-5.800
Staff Costs	13.327	-0.517	3.813	-0.385	30.99689	10.02727	173.784	151.072	-28.735	-40.943
Branches	3.087	0.268	2.521	0.000	5.723552	10.02906	150.000	227.397	-9.790	-25.926
Employees	0.191	-1.251	-0.099	-1.406	5.698483	7.524422	116.933	131.058	-26.793	-46.107

Table 6: Regression Results

This table presents *2SLS* estimates where loans and performance are endogenously determined. *Entrenched Banks* is a dummy variable indicating banks in which all the top three shareholders are only insurers and banks. ROA is the ratio of ordinary income (income before tax and before extraordinary gains and losses) to total assets. *Real Estate Loans* is the percentage changes in the ratio of lending to the real estate industry to total loan outstanding. GDP is real annual GDP growth rate at the 1995 price. *Land Prices* is the percentage change in land price indices for city areas. *City Banks*, *Long Term Credit Banks*, and *Trust Banks* are dummy variables indicating city banks, long term credit banks, and trust banks, respectively. Figures in the parentheses are standard deviations. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

Panel A: During good times (1981-1991)

	(1)	(2)
Entrenched Banks	6.977**	6.130*
	(3.500)	(3.391)
Real Estate Loans	0.069	-0.039
	(0.101)	(0.149)
Real Estate Loans × Entrenched Banks		0.202
		(0.201)
City Banks	16.064***	15.918***
	(5.969)	(6.047)
Long Term Credit Banks	21.285*	21.647*
	(11.347)	(11.675)
Trust Banks	-29.569**	-30.220**
	(14.667)	(15.286)
Land Prices	4.106**	4.178**
	(1.712)	(1.784)
ROA	219.643***	222.393**
	(85.262)	(88.574)
GDP	-7.818**	-7.898**
	(3.459)	(3.576)
Constant	-104.774**	-105.901**
	(43.549)	(45.113)
Adjusted R-squared	0.021	0.021
No. of observations	1122	1122
No. of banks	119	119

Panel B: During bad times (1992-2000)

	(1)	(2)
Entrenched Banks	2.511**	2.862**
	(1.081)	(1.159)
Real Estate Loans	-0.196***	-0.125
	(0.070)	(0.093)
Real Estate Loans × Entrenched Banks		-0.139
		(0.134)
City Banks	2.637	2.509
	(1.942)	(1.916)
Long Term Credit Banks	0.336	0.408
	(3.521)	(3.490)
Trust Banks	14.990***	14.811***
	(3.189)	(3.173)
Land Prices	1.223**	1.222***
	(0.479)	(0.473)
ROA	18.157***	17.899***
	(2.698)	(2.687)
GDP	-0.862**	-0.858**
	(0.440)	(0.438)
Constant	5.183**	5.005**
	(2.076)	(2.057)
Adjusted R-squared	0.043	0.043
No. of observations	925	925
No. of banks	123	123

Figure 1 Ownership Structure: The Banking and Manufacturing Industries

Figure 1.1 The Banking Industry

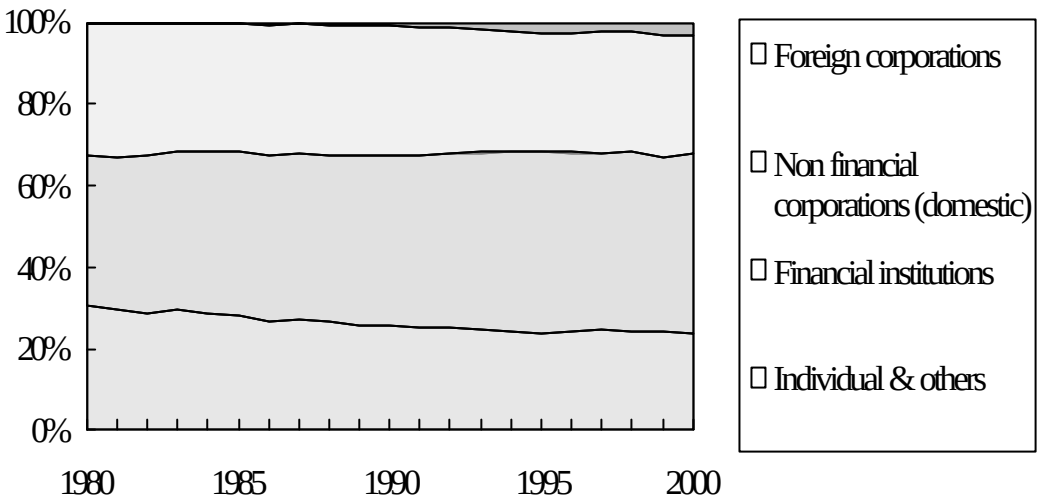
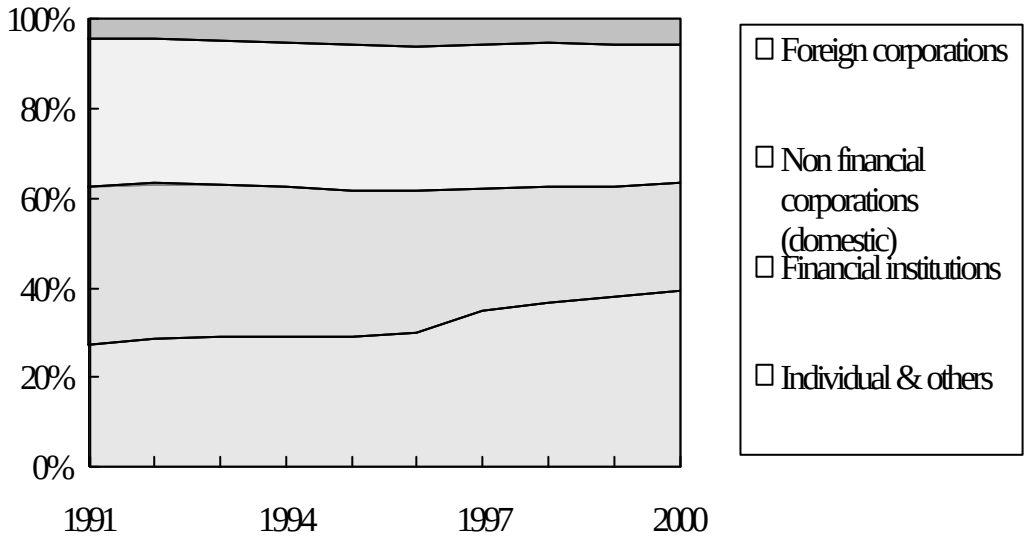


Figure 1.2 The Manufacturing Industry



Sources: Ministry of Finance, the *yukashoken hokokusho* (Company Annual Reports) various issues.