

CIRJE-F-240

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The Problem of Bank Rescues**

Yoshiro Miwa  
The University of Tokyo

J. Mark Ramseyer  
Harvard Law School

September 2003

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*Prepared for the ILE/Cegla Conference on  
the Role and Limits of Legal Regulation of Conflicts of Interest*  
University of Pennsylvania, October 17-18, 2003

Draft of September 2003

JEL: G21, G33, G34, K29

*Yoshiro Miwa:*  
University of Tokyo, Faculty of Economics  
Hongo, Bunkyo-ku, Tokyo  
miwa@e.u-tokyo.ac.jp

*J. Mark Ramseyer:*  
Harvard Law School  
Cambridge, MA 02138  
ramesyer@law.harvard.edu

**Conflicts of Interest in Japanese Insolvencies:  
The Problem of Bank Rescues**

By Yoshiro Miwa & J. Mark Ramseyer\*

*Abstract:* Economists and legal scholars routinely posit an implicit contract between Japanese firms and their principal lender (called their “main bank”). Under this arrangement, the bank implicitly agrees to rescue the firm (through financial and managerial help) when times turn bad. Out of court, it rescues the firm from insolvency. Not only does it save the investments specific to the troubled firm, it lowers the use of costly bankruptcy proceedings and cuts the costs of those bankruptcy procedures it does occasionally invoke.

Given the creditor-shareholder conflicts of interest that arise as firms approach insolvency, such arrangements would seem unstable. Yet according to a long sociological tradition, conflicts of interest are inherently less problematic in Japan than in the West. According to the emerging economic and legal tradition, Japanese economic actors do face those conflicts, but keep them in check through reputational concerns, close-knit ties, and government supervision.

Using two datasets of troubled firms from the 1970s and 1980s, we ask whether Japanese main banks in fact rescue distressed borrowers. We find no evidence that they do: large Japanese firms fail; when large firms approach insolvency main banks do not increase the share of the firm’s debt they bear; stronger ties between distressed firms and their main bank do not facilitate loans; and troubled firms do not try to preserve their main bank relationship. Instead, the claim that Japanese banks implicitly agree to rescue firms is sheer myth. Conflicts of interest do indeed matter in Japan -- and they matter enough to prevent precisely the incentive-incompatible rescue deals that scholars in the field so routinely posit.

\* Professor of Economics at the University of Tokyo, and Mitsubishi Professor of Japanese Legal Studies at Harvard University, respectively. We received generous financial assistance from the John M. Olin Program in Law, Economics and Business at the Harvard Law School (Ramseyer), the East Asian Legal Studies Program at the Harvard Law School (Miwa), the Center for International Research in the Japanese Economy at the University of Tokyo (Miwa), and the Business Law Center at the University of Tokyo (Ramseyer).

By a long sociological tradition, conflicts of interest in Japan largely do not matter. Japanese live lives so circumscribed by norms of loyalty and duty that firms need not concern themselves with the conflicts that plague their peers in the west. By the emerging economic and law-&-economics approach, conflicts do matter in the Japanese business world. Yet they primarily matter in ways that firms overcome. Through close relationships, reputational concerns, and government supervision, Japanese firms overcome the conflicts of interest that stymie so many potential transactions in the West.

To explore the impact of conflicts of interest in Japan, we examine creditor-shareholder ties as firms approach insolvency. According to an increasingly large and theoretically sophisticated literature, the principal lender (called the “main bank”) to a Japanese firm implicitly agrees to rescue it (through financial and managerial help) should it fall into distress. The claim should puzzle. After all, basic logic suggests that conflicts of interest between creditors and shareholders become most intense as firms approach insolvency. What logic suggests, however, the literature denies. Despite clear conflicts of interest, despite the absence of legally enforceable arrangements, despite the obvious incentive incompatibility -- despite all this, according to the literature firms and banks routinely keep their (implicit) word.

The proposals for bankruptcy reform follow straightforwardly. Because (at least so bankruptcy law proponents claim)<sup>1</sup> firms typically embody substantial firm-specific tangible and intangible assets, society benefits if those that encounter financial distress can weather it intact. Unfortunately, conflicts of interest and informational asymmetries among creditors, managers, and shareholders often prevent them from doing so on their own. Hence bankruptcy: through courts, creditors, debtors, and shareholders negotiate the terms of the deal that will salvage the firm-specific investments they have made.

In Japan, argue the specialists, the main bank accomplishes what bankruptcy judges do in the U.S. at far less cost. Because all creditors recognize that the main bank bears responsibility for rescuing the firm, collective action problems disappear. Because the main bank monitors the firm assiduously, so too do informational asymmetries between creditors and managers. Engineer analogous arrangements elsewhere, the specialists imply, and social welfare will increase and the need for bankruptcy law fall.

The main bank literature encompasses a broad panoply of claims beyond this bank-rescue argument. Given that we discuss those claims elsewhere (Miwa & Ramseyer, 2002a, 2003c, 2003d), we do not attempt a comprehensive critique here. Instead, we limit ourselves to the claims about bank rescues. We begin by summarizing the literature (Section I). To clarify the issues involved, we introduce several examples from the 1970s (Section II). We then explain our data, and report our empirical results (Section III). We find no evidence that Japanese banks rescued troubled firms either in the 1970s or 1980s. We conclude by speculating about what role banks do play (Section IV).

## I. Conflicts of Interest in Japan

### A. The Tradition:

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<sup>1</sup> The claim is rarely tested and dubious at best, as Baird & Rasmussen (2002) show.

Few traditions in Japanese business studies trace a nobler lineage than the notion that Japanese executives keep their word. According to some, they keep it out of an ingrained sense of Confucian loyalty. According to others, they keep it out of an austere samurai tradition. And according to still others, they keep it because they live in such a closely-knit circle that social norms bind tightly.

The classic in the genre is Kawashima (1963, 1974). A pioneer of law & society research in Japan, Takeyoshi Kawashima argued that Japanese lived within a closely-knit hierarchical world that forestalled a strong sense of individual entitlement (“legal consciousness,” he called it). Absent that sense, they could not, did not, and needed not negotiate the elaborate contractual safeguards that westerners take for granted.

In the decades since, scholars have repeated the argument endlessly. Among prominent recent writers Ronald Dore (2000) has perhaps pushed it farthest. Because of their social organization, claims Dore, Japanese executives indulge less selfishness and practice more benevolence. With less self-interested executives, Japanese firms need not concern themselves with conflicts of interest as obsessively as their American and British competitors.<sup>2</sup>

Other writers have been more skeptical -- but alas not skeptical enough. They routinely assert, for example, that Japanese firms exploit women -- but never explain why other firms do not use the chance to hire good employees cheap by treating women fairly. They claim firms cheat consumers -- but do not explain why rival firms do not steal market share by exposing the fraud. They claim big firms exploit their smaller subcontractors -- but never explain why anyone becomes a subcontractor in the first place. They claim Japanese bureaucrats guide the economy -- but do not (beyond platitudes about Confucianism and demonstrably false claims about government power [see Miwa & Ramseyer, 2003e]) explain why firms do as bureaucrats say.

Even in finance, scholars routinely slight the impact of conflicts of interest. Some argue that Japanese banks extract substantial rents from the firms that use them as their main bank -- but never explain why those firms do not switch banks. Some assert that keiretsu firms pay higher interest rates to the group bank -- but again without explaining why they do not take their business elsewhere. Indeed, even those other scholars who attribute all manner of virtue to the keiretsu never answer -- or even pose -- the obvious Chicago workshop question: if the keiretsu confer such benefits, why does market competition not lead all Japanese firms to join one, and lead firms elsewhere to organize analogous arrangements?

## B. Conflicts during Economic Distress:

1. Introduction. -- As the examples from finance show, over the past two decades the practice of ignoring Japanese conflicts of interest has migrated into economics and law & economics. Most prominently, the practice appears in accounts of how Japanese firms negotiate insolvency. One might have thought insolvency the place where conflicts among shareholders, managers, and creditors became most pointed. According to most accounts, though, in Japan those conflicts rarely surface.

The story begins with the “main bank.” Although Japanese firms typically borrow from several banks, most observers claim they maintain an “implicit” contract with one of the several as their “main bank.” Under no legal obligation to do so, that bank then provides a variety of services. For purposes of this study, we focus on one: that the main bank rescues borrowers in distress.

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<sup>2</sup> A parallel tradition in the sociological, legal and business scholarship on Japan asserts (incomprehensibly to anyone with a serious background in economics) that shareholders simply do not matter in Japan. This obviously makes it easier for scholars to ignore conflicts of interest in insolvency.

2. Bank rescues. -- According to the conventional wisdom, the main bank implicitly agrees to save borrowers who fall into distress. Quite what the rescue entails varies from scholar to scholar, but most seem to believe that the main bank will lend money, resources, and personnel. As Hoshi & Kashyap (2001: 5) put it, when "firms [run] into financial difficulty," the main bank "step[s] up and organize[s] a workout." By Aoki's account, it launches "rescue operations [that] prevent the premature liquidation of temporarily depressed, but potentially productive, firms" (2000: 86). Milgrom & Roberts (1994: 24) claim it serves "as an ultimate risk-bearer in circumstances of financial distress," and Macey & Miller (1995: 85) describe the resulting tradeoff as one where "firms sacrifice control and flexibility for the safety and security of a main bank relationship." Just as the centralized state in Eastern Europe would forestall wasteful failures by setting production schedules in advance, so the Japanese main bank prevents them by sending funds and experts as necessary.

And just as the mid-century Marxists had to finesse profound conflicts of interest to make their tales of Eastern Europe even plausibly coherent, so too current main bank theorists. Faced with borrowers in distress, they proclaim, Japanese main banks advance extra funds unsecured (Ito, 1992: 116). They send their own staff (often as board directors) to revamp management (Morck, Nakamura & Shivdasani, 2000: 540; Sheard, 1996: 181). They guarantee the firm's debts (Aoki, 2000: 71). They abandon their existing security interests in order to subordinate their claims to those of their competitors (Aoki, 2000: 83). And all this they do under no legal obligation, indeed with no written or unwritten agreement at all.

3. Hoshi-Kashyap-Scharfstein. -- Of the many studies in the field, the best-known probably remain those by Hoshi, Kashyap & Scharfstein (1990a, 1990b, 1991). According to Hoshi, et al., the closer the ties a firm maintains to its main bank, the less constraining it finds financial distress. As Bhandari & Weiss (1996: 449) explain the work, "the typically close relationship between a financing bank and a debtor firm in Japan reduces the dispersion and coordination problems among a firm's creditors" and creates a world with a "relative lack of conflict among creditors." In the end, not only does this cut the cost of financial distress to most firms, it reduces the "need for bankruptcy" in Japan and lowers the "costs of those bankruptcy reorganizations that do occur."

Given the price it pays to rescue troubled firms, a bank that implicitly agrees to supply such aid potentially faces a subgame-imperfect strategy. Given the resulting risk that it will renege, rational firms and banks should at least negotiate legally enforceable claims. They negotiate none. According to main bank theorists, they leave the deal "implicit." They do not just leave it unwritten. They leave it unspoken to boot.

Faced with why Japanese firms would rely on unspoken assumptions in this conflict-ridden environment, Sheard (1994: 17) dismisses the question as "somewhat of a puzzle." Aoki (2000) claims Ministry of Finance bureaucrats manipulate branch bank license denials to engineer a world where banks implement the knife-edge optimal strategy: rescue firms if but only if financially distressed but economically healthy.<sup>3</sup> By contrast, Rajan (1996: 1364) simply assures us that in Japan "reputational concerns" make it all work.

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<sup>3</sup> One might have thought the distinction hard enough even for the executives at the firm's main bank to make. Yet according to Aoki, Ministry of Finance bureaucrats determine ex ante what level of branch banking application denials based on failures to rescue defaulting debtors will cause banks to adopt that optimal knife-edge rescue strategy: rescue if but only if a firm is economically healthy but financially distressed. For some of the many problems with this claim, see Miwa & Ramseyer (2002a: 408-09).

In their more extended discussion of main bank financial assistance based on a 125-firm sample of distressed firms, Hoshi, Kashyap & Scharfstein (1990a) largely ignore the question. Given the costs of rescuing distressed firms one might wonder how effectively banks could resolve the conflicts among themselves. Answer Hoshi, et al. (id.: 73): it “is clear to all members in the consortium that the main bank is responsible for helping the firm in times of distress.”<sup>4</sup> One might wonder whether the bank and firm would not face informational asymmetries that stymie close cooperation. Answer Hoshi, et al. (id.: 69): “the main bank is probably well-informed about the firm and its prospects.”

All this might be more plausible if firms and banks deliberately tried to cut any of these deals. Yet not only do banks and firms never negotiate legally enforceable rescue contracts, they never even designate a bank as main bank. Hoshi, Kashyap & Scharfstein’s (id.: 73) reference to the contrary notwithstanding, they do not even lend as consortia.

Despite the superficial facility with which Hoshi, Kashyap & Scharfstein describe the main bank arrangements, they themselves find it more ambiguous in practice. To partition their sample by the strength of the bank-firm relationship (id.: 77-78), they invoke the keiretsu. To identify the latter, however, they simply use English version of one of several loan-based lists marketed in Japanese by a Marxist think tank.<sup>5</sup> Even this they find more ambiguous in practice than one might think, and note that identifying the keiretsu ties “requires some judgment” (id.: 77).

4. The project. -- Ultimately, the question is not just why Japanese firms and banks do not draft rescue contracts explicitly. The question is whether they make such arrangements at all. Because the arrangements would invite such obvious adverse-selection and moral-hazard problems, basic logic suggests firms and banks would avoid them studiously. Yet according to the literature, they (at least the large firms) maintain them almost uniformly.

## II. Examples

### A. Introduction:

At the firm level, the data at least suggest that Japanese banks do not necessarily try to save large troubled firms. If they do not try to save ex post, of course, they cannot credibly (albeit implicitly) promise to save ex ante. More generally, the examples below suggest that Japanese neither suppress conflicts of interest nor ignore them. Instead, exactly as micro-theory implies, they routinely find their options upon insolvency constrained by severe conflicts of interest.

Take several troubled firms in the 1970s.<sup>6</sup> We suspect that readers will find their travails depressingly familiar. That familiarity, however, is the point: the very conflicts of interest that

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<sup>4</sup> They also write (1990a: 73) that “free-rider problems may be less severe [because of] the repeated participation of banks in lending consortiums.” As noted in the text, the banks do not lend as consortia. In addition, Hoshi, et al. (1990a: 72-73) claim that “free-rider problems are less severe” because “there are fewer creditors and the main bank holds a large financial stake in the firm.” In fact, even during the 1960s, large Japanese firms borrowed only 15-20 percent of their debt from their main bank. See Miwa & Ramseyer (2002a: 419).

<sup>5</sup> In other words, they use the variation on the Keiretsu no kenkyu list which appears in a 1984 article published in English by Nakatani -- to which they somewhat euphemistically refer as “Nakatani’s (1984) refinement” of the list; thus, it is not the Dodwell equity-based list often used by English-speaking scholars. On the incoherence of all these rosters, see Miwa & Ramseyer (2002b).

<sup>6</sup> The accounts are taken from the periodicals listed in the References, together with Toyo keizai, ed. (various years) and relevant securities filings.

plague banks and troubled firms in the West plague banks and firms in Japan, cause the same problems, and induce participants to adopt much the same strategies.

B. Mazda:

Ever since Pascale & Rohlen (1983) recounted the tale 20 years ago, Mazda has served as the poster child of bank rescues in Japan. As they told it, the firm entered the 1970s with an iron-willed, engineering-obsessed, and somewhat pig-headed CEO from the original Matsuda family. Under his leadership, it invested heavily in rotary engines. Alas, when the OPEC-induced price hikes hit in the middle of the decade, consumers abandoned the rotaries for more fuel-efficient Toyotas, Nissans, and Hondas.

To turn Mazda around, the Sumitomo Bank stepped in as main bank. It sent personnel, loaned money, repositioned the product line, enforced austerity -- and saved the firm. In improving the firm's cash flow during this "rescue stage," wrote Pascale & Rohlen (1983: 257), the Sumitomo Bank "played the pivotal role ..., its bold action virtually guaranteeing the company's debts."

Yet the way Mazda reacted to the bank belies the notion that they implicitly agreed that the bank would rescue the firm. Had they cut such a deal ex ante, the bank should not have faced the resistance it did ex post. In fact, as Pascale & Rohlen (1983: 233, 236) acknowledge, the firm fought the bank at every turn -- with its managers referring to the new arrivals as the "occupying army."

Under pressure in December 1974, Mazda accepted several outsiders to its 30-member board. Other than one local banker named in 1967, it had not named bankers to its board for years. In time, however, it would name outside directors from a variety of firms. They would come not just from the Sumitomo Bank, but as well from the Sumitomo Trust Bank, two local banks, and the trading companies with which Mazda dealt.

Although Mazda named a Sumitomo Bank representative vice president in early 1976, but it was late 1977 before the outsiders would oust the pig-headed Matsuda as CEO. When they did, they did not fire him or install a banker in his stead. Instead, the firm named him chairman of the board and replaced him with its incumbent third-in-command, a long-term Mazda engineer. By 1978, Mazda still had only four banker directors.

To keep Mazda viable, several entities provided crucial support. The Sumitomo Bank and Sumitomo Trust Bank both provided money. Ford took a 25 percent equity interest. The director from the Trust Bank directed capital budgeting issues, one director from the Sumitomo Bank managed exports while another directed accounting and cost-controls, the director from the C. Itoh trading firm coordinated sales, and the director from Sumitomo Trading took charge of managerial consolidation.

Pascale & Rohlen characterize the story as a bank rescue, but one should wonder. The Sumitomo Bank never had the stake in Mazda that ordinarily would induce a bank or firm to invest large resources in saving it. Although it had lent more to Mazda than anyone else, it had long kept its loan share modest: 13.6 percent in October 1974 and 14.5 percent in October 1977. Indeed, by October 1977 it was cutting its loans to Mazda: from 53.6 billion yen in October 1976 to 46.1 billion in October 1977, and by October 1980 to 26.3 billion. As of 1974 (and still in 1977) it held less than 4 percent of the stock. Had it wanted to own more, it legally could have bought up to 10 percent. Instead, it kept its share below 4 percent, and below that of the Nippon Life Insurance firm.

In fact, the Sumitomo Bank did not rescue Mazda. Instead, the firms with the greatest stake in the firm collectively rescued it. None of them knew how to make cars, of course, but Mazda's

problems did not lie in automotive engineering. Instead, they lay in financial management and marketing. Banks do know how to balance books, and trading companies know how to read consumer preferences and cultivate export markets. What Mazda needed, these others could contribute. They did, and Mazda survived. Pascale & Rohlen characterize the operation as Sumitomo-Bank-led -- but probably only because they began their inquiry by looking for that bank leadership.<sup>7</sup>

#### C. Eidai Industries:

Although Mazda still makes cars, troubled firms do not always survive. Sometimes, banks and trading partners intervene and fail. Eidai Industries mass-produced pre-fabricated housing, and by the 1970s listed its stock on Section 1 of the Tokyo Stock Exchange. In the mid-1970s it found itself outcompeted. Out-maneuvered by its competitors, in December 1975 it posted a large loss.

Eidai's banks had known of its travails already by late 1974. To resolve those problems, in the fall of 1975 the largest five creditors agreed collectively to lend it more and to excuse it from its 2 billion yen semi-annual interest payment. True to their word, they lent large amounts. From 1971 to 1977, they increased their loans to Eidai from 7.5 billion yen to 75.3 billion (Table 1).

The banks took a variety of other steps besides. They enlisted the participation of two trading firms that handled Eidai accounts. They encouraged Eidai to increase its sales force. They introduced clients to Eidai branches. They placed three bankers on Eidai's 11-member board. They replaced the Eidai president, first with a former president of a Daiwa-Bank-affiliated securities firm, then with the number-four man at Daiwa itself.

But monitoring a borrower effectively is hard. If its rivals outcompeted Eidai, Eidai outfoxed its banks. The second Daiwa-sent president had planned to rebuild Eidai within two years. It was not to be. Despite having had three bankers on its board and a banker in its vice presidential post even before the crisis, despite eventually accepting its president and 14 other senior executives from the Daiwa Bank -- despite all this, Eidai carried problems that went much deeper than any bank realized. By 1978, one year after the ambitious second Daiwa-sent president took office, the banks petitioned the court for its reorganization. "Banks know they're easy to fool," a senior Daiwa executive recalled (Chuo koron, Spec. Winter 1978 issue, p. 334). "But they got fooled again anyway."

[Insert Table 1 about here.]

#### D. Sasebo Heavy Industries:

When a rescue occurs and a firm survives, sometimes it survives only by happenstance. During the 1960s and early 70s, the Sasebo Heavy Industries (SHI) shipbuilding firm had thrived. What with the explosive economic growth and the increasing need for large tankers, demand had boomed. Come 1977, however, the Arab oil embargo and the massive revaluation of the yen (from 290.3 yen/\$ in January 1977 to 195.4 in December 1978) had turned the boom into a bust. With total industry shipbuilding capacity of 19 million tons, Japanese firms had 1977 orders of only 5 million. At least the largest shipbuilding firms had diversified their product line. Medium-sized SHI had not. By the fall of 1978, it had no orders at all.

Like most substantial Japanese firms, SHI borrowed broadly. From over a dozen banks, it had borrowed (as of March 1977) over 79.7 billion yen. Among the commercial banks, it had

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<sup>7</sup> Perhaps for much the same reason, Pascale & Rohlen (1983: 231) attribute "a key role" to government bureaucrats, when in fact the government did virtually nothing. Indeed, even they acknowledge that "[a]ll company officials interviewed denied any government involvement."



borrowed the most from the Daiichi Kangyo Bank (DKB): 3.3 billion. It had four major shareholders: the Kurushima dry-docks firm (25.0 percent), the Nippon Kokan (NKK) steel firm (24.2 percent), Nippon Steel (14.1 percent), and the Nissho Iwai trading firm (10.1 percent). Kurushima had bought its interest because its CEO Toshio Tsubouchi wanted to integrate SHI's large dock facility into Kurushima. When he had earlier tried to become president, however, NKK had blocked his move and instead engineered the appointment of its own representative.

To deal with the non-existent demand, in early 1978 SHI asked for early retirements. By April 1,600 employees had volunteered, but to finance their retirement package the firm needed 8.2 billion yen. It would also have to finance other changes, of course, and all told could expect to need about 20 billion. When it approached its banks, they balked.

Rather than volunteer additional funds, the banks told SHI to file for bankruptcy. At least on much of their debt, they held security interests. If the firm filed for bankruptcy immediately, they could expect some repayment. If they now loaned funds unsecured (and the firm apparently had no more assets to post), rather than repayment they could expect a steady stream of requests for yet more funds. The additional funds they loaned would effectively become hostage, and lock them into future demands indefinitely.

The banks offered to lend the money only if SHI's lead shareholders guaranteed the debt, but the shareholders would not guarantee. NKK controlled SHI, and Tsubouchi -- bitter still about the way NKK had blocked him from becoming president -- was not about to guarantee any loans suggested by its handpicked managerial team. Absent a co-guarantee from Kurushima, neither would NKK guarantee a loan. And if Tsubouchi and NKK would not guarantee, Nippon Steel and Nissho Iwai would not do so either.

In short, neither the firm's creditors nor its shareholders would invest anything more in the firm. Ordinarily, such a firm would promptly go bankrupt. It did not, but only because SHI dominated the city of Sasebo, and Prime Minister Takeo Fukuda owed the city a massive political debt. When the government's nuclear-powered ship "Mutsu" had developed a radioactive leak in 1974, all other ports had refused to take it. With a leaking nuclear ship sitting off the Japanese coast and nowhere to send it, Fukuda faced a political disaster. He averted it, but only when Sasebo agreed to take the ship.

For that favor Fukuda now intervened personally. He struggled mightily to accomplish anything at all. Repeatedly, he urged the banks to fund SHI. Repeatedly, they refused. They would not loan the money unsecured and unguaranteed, they declared, and the firm could not secure and the shareholders would not guarantee.

Tsubouchi eventually did gain control and SHI did survive, but it survived largely without banks and only on a reduced scale. From 79.7 billion in March 1977, by 1979 its debt had fallen to 51.1 billion, by 1981 to 38.7 billion, and by 1983 to 10.2 billion. From 6968 employees in 1977, by 1979 its workforce fell to 4223, by 1981 to 3422, and by 1983 to 2760.

#### E. Other Cases:

1. Hanasaki. -- Other distressed firms -- even big firms -- expeditiously go out of business. In the early 1970s, with its 40-year history the venerable Hanasaki firm was one of the largest Japanese manufacturer of women's clothing. When it tried to expand in 1976, it found itself with enormous unsold inventory: 1.6 to 1.7 billion yen on annual sales of 18.5 billion.

"We begged it several times to come up with a consolidated rationalization plan, and a plan to rebuild," recalled one Sumitomo Bank representative (Apareru, 1978: 81). "But it wouldn't comply." So, when in October it saw Hanasaki's winter clothes moving slowly, the bank offset

200 million yen's worth of Hanasaki liabilities against Hanasaki's deposits. Early the next year it announced that "there are limits to a bank's assistance," and declared an end to all further loans. Soon, Hanasaki went out of business.

2. Hayashi Spinning. -- Sometimes a rescue succeeds, but only after creditors manipulate the bankruptcy process to oust the incumbents. The Hayashi firm had been one of the largest wool spinning firms in Japan. When business worsened in the 1977, the founder-president resigned. As his family had earlier pledged their stock in Hayashi Spinning to the Tokai Bank in exchange for its aid, they now sued to retrieve that stock.

Soon, rumors began to circulate that they would liquidate the firm at the February shareholder's meeting. Apparently, they planned to use their equity stake to demand concessions from their creditors. Afraid of losing control, the Tokai Bank promptly filed for reorganization under the bankruptcy laws. Through the bankruptcy proceeding the bank was able to cut the incumbent shareholders' interests to less than 10 percent of the firm's stock. It then reorganized and revamped the firm. The factories continued to operate with the labor force uncut -- but now under bank control.

3. Mitsumi Electrical. -- And sometimes if banks try to intervene, the firms reject the banks and restructure on their own. Electrical parts maker Mitsumi had fallen on hard times in 1970 after issuing bearer securities in Germany the previous year. In 1971 the Mitsui Bank sent in one of its men as Mitsumi vice president and another as director -- this in addition to the Mitsui banker already on the 10-member board. As of early 1970, the Mitsui bank as Mitsumi's fourth-largest creditor had lent Mitsumi 340 million yen. By 1972 it was its largest creditor and had 635 million outstanding.

Within a year the Mitsui officers had largely disappeared. The vice president had become an ordinary director, and the other directors had vanished. Apparently, the incumbent managers -- still under the control of an autocratic CEO -- had fought the bankers and pushed them out. Where Mitsumi had had 3528 employees in January 1971, three years later it was down to 2002 employees. It survived, but for several years only on a much reduced scale.

### III. Empirics

Nothing about these accounts will surprise readers, except perhaps the fact that they concern Japan. The tales hinge on predictable conflicts of interest among creditors, shareholders, and managers, and those participants respond to the predictable conflicts in predictable ways. Japanese banks and firms, the tales imply, behave by the same logic as banks and firms in the West. Yet anecdotes never end debates, and to explore more fully the role of conflicts of interest in Japanese business we turn to more systematic evidence.

#### A. Data:

We use two lists of troubled firms. Our first roster (the 1978 firms) dates from the mid-1970s. As the examples above suggest, for Japan these were badly troubled years. The 1974 oil crisis had thrown a steadily and rapidly growing economy into recession, and by 1978 a wide variety of firms were under water. For this list, we take all 320 exchange-listed firms with a loss carryforward in 1978. We obtain the list from the April 1978 issue of Toyo keizai tokei geppo. None of the firms was in the financial services industry.

Our second list (the 1984 firms) dates from the first half of the next decade. As the massive late-1980s boom illustrates, these were healthier times for the economy as a whole. Nonetheless, the health was not uniform. Troubled firms remained, and for this second list we take all 134 exchange-listed non-financial firms with at least three consecutive loss years (after interest but before extraordinary gains and losses) as of April 1984. We obtain the list from the August 11, 1984 issue of the Shukan toyo keizai.

The Japanese government gradually deregulated aspects of the financial services in the late 1980s. Some observers argue that this radically changed the “main bank system.” In fact, as we show elsewhere, it did not. Because the regulations involved had not constrained bank-firm lending even in the 1960s (Miwa & Ramseyer, 2003a, 2003b, 2003d), their relaxation could not have significantly affected loan patterns. For our purposes, however, note that the 1978 dataset antedates any deregulation-induced changes to the system, and even the 1984 list antedated most of the changes.

We use the basic financial information that appears in the cited issues of the Toyo keizai tokei geppo and Shukan toyo keizai. We add board composition from the Kigyo keiretsu soran, and stock price data from Toyo keizai kabuka CD-ROM. Given both that the two lists represent different variations on financial distress and that the two journals provide different information on the firms, we switch between the two datasets as necessary.

As of 1978, there were 1,584 exchange-listed firms in Japan. As of 1984, there were 1,646.

#### B. Variables:

For our regressions, we define the following variables. We include selected summary statistics in Table 2.

**Main Bank Loan Share:** The fraction (in percent) of a firm’s total bank loans borrowed from the bank lending the greatest amount to the firm.

**Main Bank Experience Director:** If followed by “no.,” the number of directors at the firm with experience working at the bank lending the greatest amount to the firm; if followed by “dum.,” a dummy variable equal to 1 if the firm has any such directors.<sup>8</sup>

**Any Bank Experience Director:** If followed by “no.,” the number of directors at the firm with experience working at any bank; if followed by “dum.,” a dummy variable equal to 1 if the firm has any such directors.

**Dominant Shareholder:** A dummy variable equal to 1 if any shareholder holds 25 percent or more of the firm’s stock.

**Total Bank Loans:** The amount of a firm’s bank loans, in million yen.

**Total Main Bank Loans:** The amount of a firm’s loans from the bank lending the greatest amount to the firm, in million yen.

[Insert Table 2 about here.]

#### C. Preliminary observations:

1. Industry mix. -- The firms in the two lists represent a variety of industries. The 324 1978 firms most commonly came from the machinery industry -- 14.8 percent (48 firms). The textile industry followed with 13.6 percent (44 firms), the chemical industry with 9.0 percent (29 firms), and the steel industry with 8.6 percent (28 firms). Of the 1,584 total listed firms that year,

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<sup>8</sup> For details on the determination of board composition, see Miwa & Ramseyer (2003c, 2003d).

10.3 percent were in machinery, 5.4 percent in textiles, 10.4 percent in chemicals, and 4.0 percent in steel.

By 1984, the industry mix had shifted a bit, but only a bit. Of the 134 troubled 1984 firms, 15.7 percent were in textiles (21 firms). The trading industry followed with 13.4 percent (18 firms), steel with 12.7 percent (17 firms), and chemicals with 11.9 percent (16 firms). Seventy of these firms had suffered three consecutive loss years, 26 firms had had four, and 38 firms had had five or more.

2. Subsequent performance. -- As a crude measure (we make no adjustments for stock splits or dividends) of how the firms performed after their brush with distress, consider stock price. More specifically, consider the stock price trajectory of the 101 1984 troubled firms that survived through 2001.<sup>9</sup> According to this suggestive evidence, these firms first fell into trouble in the early 1970s. Indeed, half of the 1984 firms were on our list of 1978 troubled firms. They then recovered (after all, those that did not recover disappeared from our stock price data), and their stock price thereafter tracked the market index.

For example, suppose we partition the firms by whether their stock traded above or below the group median (110 yen) in 1970 (Figure 1; all stock prices are as of the end of the calendar year). The two groups converge by the end of the decade. Apparently, in 1970 the market could not predict which firms would fall into worse distress by 1984. Suppose, however, that we partition the two groups by the group median (252 yen) in 1984 (Figure 2). Even by 2001, the two groups do not converge. Instead, starting at their 1984 benchmark they grew at roughly equivalent rates.

Finally, suppose we partition the group by the group median (100 yen) as of 2001 and add the market index (TOPIX) (Figure 3). Note first that the groups converge back in time as they approach 1970. The market in 1970, again, did not anticipate their relative 1984 performance. Second, note that by 1984 the groups badly underperform the index, and partition themselves into groups that track their relative 2001 performance. Last, note that after the mid-1980s the two groups and the index move in similar directions. Apparently, after 1984 both the better and the worse performing troubled firms recovered, and grew at market rates.

[Insert Figures 1, 2 and 3 about here.]

3. Testable hypotheses. -- According to the conventional wisdom, main banks implicitly agree to rescue troubled borrowers. Typically, the main banks do so by lending them funds they otherwise would not lend. Even when a loan is not otherwise financially advantageous, main banks lend.

From this, several implications follow:

Firm failures. Very few listed firms will fail. If all (or most) large firms have a main bank, and if main banks agree to rescue their distressed borrowers, then few listed firms should disappear.

If (as occasionally claimed in the literature) the presence of directors from a firm's main bank (or the fraction of its loans from the main bank) proxies for the strength of the firm's ties with its main bank, then firms with more directors from their main bank (or borrowing more from their main bank) should be less likely to fail than other firms.

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<sup>9</sup> As of late 2001, one, Koma Stadium, had a stock price in the 8,800 yen range (the price of the others totaled 14,733), so we exclude it from our database.

Main bank loan share. When financially troubled, firms will borrow heavily from their main bank. Banks do not all agree to rescue borrowers. Rather, only the main bank does. If so, then the fraction of a firm's loans coming from the main bank should rise during times of financial distress.

If the presence of directors from a firm's main bank (or the fraction of its loans from the main bank) proxies for the strength of a distressed firm's ties with its main bank, then the fraction of a firm's loans coming from the main bank will rise most dramatically at firms with more directors from their main bank (or with a greater fraction of their loans from their main bank).

Total loans. Firms will continue to borrow during times of distress. Either the main bank will itself lend the troubled firm the funds it needs (the most common conventional hypothesis), or by implicitly guaranteeing the firm's debts it will facilitate loans elsewhere (an occasional alternative hypothesis).

Main bank switch rates. The most troubled firms will rarely switch their main bank affiliation. Holding an implicit insurance contract with this main bank, the more seriously troubled firms will seldom abandon the relationship.

#### D. Bank Rescues:

1. Firm failures. -- Firms fail in Japan, even big exchange-listed firms. The notion that main banks save all large troubled firms is simply false. Of the 320 troubled firms in 1978, 10.3 percent vanished immediately, and 20.9 percent had not recovered six years later: i.e., 33 firms disappeared (e.g., by liquidation, by merger, or simply by de-listing the stock) within a year, and 67 remained sufficiently underperforming to appear on the 1984 list. Of the firms that disappeared, 14 disappeared by merger, 9 through various bankruptcy-related legal proceedings, and 10 simply delisted (not all delisted firms failed, of course).

In Table 3, we explore some of the possible determinants of firm failure. Toward that end, we use the 1984 sample and regress on several variables a dummy variable equal to 1 if the firm was still listed on the TSE in late 2001. Because the conventional wisdom does not specify when strong main-bank ties most matter, we use as our independent variables not just (i) those from 1984 (col. 3), but (ii) those from the years before the onset of distress (1978 and 1981, cols. 1 & 2), and (iii) those from the years after the distress (1987, col. 4) as well.

According to the literature, the stronger a main bank's ties to a firm, the more likely the bank will save it. In fact, according to Table 3 the more a firm depended on its main bank for its debt in 1984 or 1987 (the higher was **Main Bank Loan Share**), the lower the odds that it would still exist in 2001. The number of potential main bank representatives on the firm's board (**Main Bank Experience Director**) and the presence of a dominant shareholder (**Dominant Shareholder**) had no observable relation to the odds that the firm would survive.

If main-bank-tied firms tended to disappear, might they have disappeared because the main bank rescued them through a merger? In Table 4, we take the disappeared firms and regress on the same variables a dummy variable equal to 1 if the firm was a party to a merger. Again, we compare the results obtained with independent variables from four years. Once more, the strength of a firm's ties to its main bank shows no observable connection to the possibility of merger. If main banks engineer mergers, it does not appear in the data.

In fact, the distinction between a liquidation and a merger is a distinction without substance anyway. On the one hand, that a firm is liquidated says nothing about what happens to its assets or employees. If its assets have economic value, another firm will buy and use them. If its employees

have skills specific to those assets, then the firm that buys the assets will have an incentive to hire the employees as well.

On the other hand, that a firm is merged likewise says nothing about what happens to its assets or employees either. If the acquiring firm cannot use the merged firm's assets as productively as another firm could, it will sell them. If it does not find the merged firm's employees cost-effective, it will discharge them. Fundamentally, whether a firm is liquidated or merged says nothing about what happens either to its assets or its employees.

[Insert Table 3 about here.]

[Insert Table 4 about here.]

3. Main bank loan share. -- (a) 1978 firms. According to the conventional accounts, in agreeing to rescue troubled firms the main bank implicitly promises to lend the firms additional funds as necessary. By contrast, the 1978 data show no willingness on the part of the main bank to shoulder any substantial additional part of the loans to the troubled firms. In 1974, the main banks in the dataset had lent an average of 24.2 percent of the debt of the firms involved. By 1977, that fraction had risen -- but only to 24.7 percent.

Even that evidence misleads, for at the most seriously troubled 1978 firms the main banks dramatically cut their exposure. Among the 324 troubled 1978 firms, 87 (26.9 percent) were insolvent. From 1974 to 1977, the main banks reduced the amount they lent to 19 of the insolvent firms (21.8 percent). They cut the fraction of the insolvent firms' loans they were willing to finance at 44 (50.6 percent)

(b) 1984 firms. To see the phenomenon more clearly, consider Table 5. There, we trace the loan patterns at the firms in the 1984 dataset during the years before and after 1984. In the first line of each panel, we give the relevant figures for the dataset as a whole. In the next lines, we partition the dataset by the size of a firm's borrowings, and include the relevant figures for each subset (see the notes to the Table for the partitioning standards). Largely for informational purposes, in Panel A we give the per-firm average total bank loans, in Panel B the per-firm average growth in bank loans, and in Panel C the per-firm average main bank loans.

Note that the per-firm mean figures of Panels B and C will sometimes reflect outlying data points caused by events that nothing to do with bank rescues. A merger between two large firms, for example, will increase the mean per-firm borrowing (as between Maruzen Oil and Daikyo Oil during the 1984-87 period; both were in the largest quartile). A firm can similarly increase the mean when it buys another firm, then borrows heavily to build the new business (as when the Daiei general merchandising store bought Maruko and expanded it into Daiei Finance during 1987-90).

In any event, consider Panel D, where we trace the change in the distribution of bank loans between the firm's main bank and the other banks. During the 1970s, these firms had borrowed 18 to 20 percent of their funds from their main bank. As they hit hard times in the early 1980s, the main bank cut the amounts it lent them. From 18.1 percent in 1981, by 1983 and 1984 it reduced the amount it shouldered to under 17 percent. Only as the firms began to recover did they increase the fraction again (and note the cautionary results in Table 7 Panels C and D).

Or turn to Table 6. We give the number of firms (partitioned by loan size as in Table 5) where the main bank raised or cut the fraction of the firm's debt it shouldered. Focus on the most troubled period for these firms: 1981-84. Note that for the firms with the most outstanding debt, the main bank raised the share it financed at only 3 firms, but cut it at 10. For the group with the second largest amount of debt, it raised its share at 17, but cut it at 23. Only with the next smaller-

debt group did the main bank increase the share it financed more often than it cut it, but then only by 13 to 12.

[Insert Tables 5 and 6 about here.]

(c) OLS regressions. In Table 7, we use the 1984 data set to compare the factors that contribute to increases in the share of a firm's debt the main bank finances during the periods before and after distress. Unfortunately, as noted earlier the conventional literature does not specify when main-bank ties matter most. As a result, we use data from four separate time windows. In Panel A, we examine the period leading up to distress: we first use the increase in **Main Bank Loan Share** over 1981-84 as our dependent variable and independent variables from 1981, then pair the increase over 1978-84 with independent variables from 1978. In Panel B, we examine the period after the distress: we take our independent variables from 1984, and use as our dependent variable first the **Main Bank Loan Share** increase over 1984-87 and then the increase over 1984-90.

For the first two columns of each panel of Table 7, we use either (i) the number of directors with experience at the main bank or (ii) a dummy variable equal to 1 if the firm has any such director, as one of the independent variables. For the last two columns, we use either (x) the number of directors with experience at any bank or (y) a dummy variable equal to 1 if the firm has any such director. Note that **Main Bank Loan Share** and **Main Bank Experience Director** are not strongly correlated. Among the 67 firms with no ex-main-bank directors in 1984 the average main bank loan share was 26.3 percent, while among the 62 firms with at least one ex-main-bank director it was 31.4 percent; the difference between the two means is not significant at even the 10 percent level (two-tailed test). The correlation coefficient between **Main Bank Loan Share** and **Main Bank Experience Director (no.)** for 1984 is 0.11.

Because of the ambiguity in the conventional accounts, we include regression results both for the period leading up to (and including) the distress and for the period thereafter. Unfortunately, those conventional accounts do not specify when the main bank supposedly rescues. By 1984, however, the firms in our sample already would have experienced at least three consecutive loss years. A main bank that intended to rescue such a firm should have begun to lend it extra funds by then, and for that reason we focus on the years leading up to 1984.<sup>10</sup>

The results for this pre-1984 period appear in Panel A of Table 7: changes in a firm's **Main Bank Loan Share** during the three or more loss years and the years leading up to those years. Suppose as often asserted that (i) the share of a firm's debt a main bank finances and (ii) the number of directors from the main bank on a firm's board both proxy for the strength of the firm's ties to the main bank. Suppose further that bank rescues take the form of loans by a main bank to a troubled firm that other banks would not willingly make. If main banks rescue the troubled firms closest to them, then these hypotheses imply that a firm's **Main Bank Loan Share** and **Main Bank Experience Director** will be positively associated with increases in its **Main Bank Loan Share** as it enters troubled times.

According to Panel A, main banks do not rescue their troubled clients. The coefficients on **Main Bank Loan Share** are significantly negative for 1978-84, and insignificant for 1981-84. The coefficients on **Main Bank Experience Director** are uniformly insignificant. If anything, the

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<sup>10</sup> Additionally, note that by 1984 Japanese asset prices had begun to boom, raising the value of mortgageable assets at most firms, lowering the default risk they presented -- and reducing the implication that any loan to a firm represented a "rescue." Indeed, as Figures 1-3 show, by 1984 the stock prices of the firms in this sample had already begun to rise.

closer the ties a firm maintains with its main bank, the more the bank will cut the share of the firm's debt it finances as the firm enters distress.

The results for Panel B present more of a puzzle. During the years after distress, the firm's **Main Bank Loan Share** continues to be negatively associated with increases in that variable: in all specifications, the greater the share of a firm's debt the main bank finances, the more it cuts that exposure during the years after distress. At first glance, however, the coefficient on **Main Bank Experience Director** seems to support the bank-rescue hypothesis: for both the 1984-87 and the 1984-90 periods, the coefficient is positive and weakly significant at the 10 percent level.

We say "at first glance," because the result appears neither statistically robust nor economically very large. Consider the first of the regression results using 1984-87 data. Statistically, the significance here of the **Main Bank Experience Director** variable hinges on the simultaneous inclusion of **Main Bank Loan Share**. If we drop the latter, the t-statistic on the director variable drops to 0.71. By contrast, **Main Bank Loan Share** remains significant regardless of whether we include **Main Bank Experience Director**. Even if we drop the latter, the t-statistic on the loan share variable stays at 2.64.

Economically, the number of main bank directors has relatively little impact on the change in the main bank's loan share over 1984-87. By the conventional wisdom, a firm with close main bank ties would both borrow a higher fraction of its debt from its main bank (larger **Main Bank Loan Share**) and name more directors from its main bank (larger **Main Bank Experience Director**). Yet according to Panel B, the negative coefficient on loan share more than offsets the positive coefficient on the director variable.

To illustrate, compare a firm with median values for each of the relevant variables in 1984 with a firm with stronger-than-median ties to its main bank. The firm with median values for all variables would have found that its predicted **Main Bank Loan Share** (given in percent) increased during 1984-87 by 3.571 percentage points.<sup>11</sup> Now suppose this firm had stronger-than-median main bank ties reflected in a 1984 **Main Bank Experience Director** value one standard deviation above the median. Over 1984-87, its predicted **Main Bank Loan Share** would have risen by an additional 2.121 points, for a predicted increase of  $(3.571 + 2.121 =) 5.692$ .

By contrast, however, suppose that our otherwise-median firm instead had strong main bank ties reflected in a 1984 **Main Bank Loan Share** one standard deviation above the median. Over 1984-87, its **Main Bank Loan Share** would have lagged that of the median firm by 6.298 points. Because the median firm had a predicted increase in its **Main Bank Loan Share** of 3.571, our firm with strong main bank ties would have had a predicted 1984-87 fall of  $(3.571 - 6.298 =) -2.727$ .

Finally, suppose that our firm had strong main bank ties reflected in loan share and director values that both lay one standard deviation above the median. Because the negative effect of the loan share variable more than offsets the positive effect of the director variable, over 1984-87 this firm's **Main Bank Loan Share** would have lagged that of the median firm by  $(6.298 - 2.121 =) 4.177$ . Given that the median firm had a predicted increase of 3.571, our main-bank-tied firm would have had a predicted 1984-87 fall of  $(3.571 - 4.177 =) -.606$ . Hence the conclusion: main banks do not try to save the firms closest to them.

[Insert Table 7 about here.]

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<sup>11</sup> The mean increase in **Main Bank Loan Share** is 1.663 for 1981-84 and 1.495 for 1984-87. Neither is statistically significantly different from 0.



4. Total bank loans. -- Faced with evidence that main banks do not increase their debt share at distressed firms, readers may suggest that main banks nonetheless help firms by inducing other banks to loan funds they otherwise would not lend. During their 1981-84 loss years, these troubled firms did increase their debt by 5 percent. During the next 3 years (1984-87) they increased it by only 1 percent, however, and during the height of the 1987-90 economic boom they actually cut their debt (Tab. 5, Pan. B).

TSE-listed firms as a whole increased their loans far more aggressively. During 1980-85, they increased the amounts they borrowed by 61 percent, and during 1986-90 by another 98 percent. As noted earlier, the distressed firms were most commonly in the machinery, textiles, chemicals, steel, and trading industries. In these industries (textiles fall within light industry, and steel within metals), the TSE firms raised their bank loans by the following fractions:<sup>12</sup>

	<u>Machinery</u>	<u>Light ind.</u>	<u>Chemicals</u>	<u>Metals</u>	<u>Trading</u>
1980-85:	22 %	101 %	23 %	101 %	142 %
1986-90:	84 %	72 %	25 %	142 %	335 %

Now consider Table 8, where we regress the increase in total loans (in percent) before and after the 1984 distress on the same independent variables. The only significant result concerns the number of directors with banking experience: the greater the number of such directors before the onset of distress, the lower the growth in the firm's total loans during the ensuing years (Panel A). The point relevant here, however, is simpler: the results show no evidence that strong main bank ties (whether by the main bank's share of the firm's loans, or its personnel on the firm's board) increase a firm's ability to borrow either before or after the onset of distress.

Summary measures confirm the absence of any mechanism by which main bank affiliation raises total loans. Of the 131 firms in our 1984 database with below-median **Main Bank Loan Share** in 1981, the amount of outstanding loans fell during 1981-84 at 13; of the firms with above-median **Main Bank Loan Share**, outstanding loans fell at 23. Of the firms with a below-median number of **Main Bank Experience Directors** in 1981, the amount of outstanding loans fell during 1981-84 at 18; of those with above-median **Main Bank Experience Directors**, outstanding loans similarly fell at 18.

[Insert Table 8 about here.]

5. Main bank switch rates. -- If main banks offered implicit insurance against distress, then those firms closest to insolvency should maintain the most stable main bank relationships. Healthy 35 year-olds do, after all, sometimes switch their life insurance policy. Terminally ill 80 year-olds do not. By hypothesis, the distressed firm has paid the bank its implicit insurance premia for years. At the very time at which it might collect on that policy, it will not cancel the policy and search for another carrier.

If distressed firms do switch main banks, they do so either because the main bank already reneged on its implicit insurance coverage, or because it never offered it in the first place. And if main banks regularly renege, of course, no rational firm will pay the premia, while if firms do not pay the premia no rational bank will offer the insurance. If distressed firms regularly switch main banks, firms and banks must not be contracting for insurance.

Firms do indeed switch. Indeed, if anything (the difference is modest), distressed firms switch more readily than healthier firms. Of the 320 firms in the 1978 database, 77 (24.1 percent) had switched their main bank during the preceding 3 years. Among the 87 insolvent firms in the

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<sup>12</sup> Based on the database constructed for Miwa & Ramseyer (2003d).

group, 32 (36.8 percent) had switched. Among TSE firms as a whole, 29.2 percent changed their main bank affiliation during 1980-85; 20.8 percent changed during 1986-90. Among the firms in the bottom profitability decile, 29.8 percent changed their main bank during the first half of the decade; 26.3 percent changed during the second.

6. Dominant shareholders. -- According to the corporate governance literature, the presence of a dominant shareholder can mitigate the conflict of interest between managers and shareholders. To be sure, a dominant shareholder may aggravate the conflict among the shareholders or between shareholders and creditors. Yet he should generally reduce the conflict between shareholders and managers, and in so doing should raise firm performance.

So theory suggests. Yet our troubled firms include disproportionately many with a dominant shareholder. Among TSE Section 1 firms as a whole, 20.3 percent had a dominant (25 percent or more) shareholder in 1980, and 20.4 percent in 1985. Among our troubled 1978 firms, 39.0 percent had a dominant shareholder (1977 data), while among our troubled 1984 firms 38.9 percent did (1984 data). At least in this sample, dominant shareholders seem unable to raise firm performance. Yet according to main bank theorists, what dominant shareholders cannot do, banks routinely perform.

Return to Tables 7 and 8, where we ask whether dominant shareholders facilitated loans. Our account of SHI's travails suggests that dominant shareholders might do so by guaranteeing the troubled firm's loans. If they do, however, the results do not appear in Tables 7 and 8. The coefficients on **Dominant Shareholder** are uniformly insignificant.

Simple summary statistics illustrate how dominant shareholders seem not to increase the ability of firms to raise funds. Of the 51 firms in our 1984 database with a dominant shareholder in 1981, 15 firms (29.4 percent) cut the amount they borrowed over 1981-84; of the 83 firms without a dominant shareholder, the amount of total loans fell at 21 firms (25.3 percent).

### III. The Logic of Bank Rescues:

Bankers do not spend their careers running industrial firms. They run banks. Through their work, they do not learn to build cars or sell detergents. They learn how to operate a heavily regulated financial intermediary. They may indeed have been among the best students in their college class. But they will need more than IQ to run a firm. Just as bureaucrats could not successfully run the Eastern European economy, bankers cannot run Japanese firms.

Talent is not expertise. "The biggest problem with having a bank control management," complained one businessman, "is that bankers can't stop thinking like bankers. Sure, they can cut personnel and inventory. But they don't seem to realize that even in the middle of all the cut-backs, you've got to plan for the future and invest in the right facilities" (Ginko kanri, 1978: 87). As Mansaku Takeda (1978: 41), senior consultant to the Daiichi Kangyo Bank, put it, "banks are places to oversee loans. There's no reason think a banker has any talent for running a firm, and there're precious few examples of firms that did better because a banker came to run them. ... Sure, bankers may be smart. But whether they have any managerial talent is another issue."

Despite the broad claims about bank monitoring and intervention in Japan, bankers accomplished much less. As one late-1970s account (Ginko kanri, 1978: 83) put it, bankers primarily intervened in firms with excessive investments. There, they did not need to run the firm. Instead, they needed only to arrive, to sell, and to leave.

Consistent with their slasher role, according to the same 1970s account bankers primarily intervened either where the industry had long-term excess capacity, or where a strong company

CEO had ruled autocratically. Newspapers called the late 1970s recession a “structural depression,” and the structural changes fundamentally shifted Japanese comparative advantage. In many industries, firms were unlikely ever to recover their earlier levels: sugar, some steel sectors, aluminum, shipbuilding, textiles, chemicals, paper, for example. Where the CEO had ruled autocratically, the firms had often gambled heavily in markets like real estate, or built unnecessary plant capacity. Whether the firm was caught in a structural transformation or had gambled and lost, it needed someone with a talent for numbers to come, sell unneeded assets, and leave. That, bankers could do.

Given their limited ability, Japanese bankers avoid operating troubled debtors if possible. Like bankers elsewhere, they instead pull their loans when they can. So SHI and Hanasaki found, of course. When they needed extra money, the banks did not offer loans and volunteer to run the firm. Rather, they refused the money, and pushed the firms toward bankruptcy. Whatever the pretext, explained one 1970s bank officer, “if a firm is in such bad shape that a bank will have to run it, banks will want to pull their loans if they can” (id.: 84).

By simple logic, if any entity were to “rescue” a firm, it would not be a bank. Instead, it would be an industrial firm, and probably a business partner. First, such a firm would be more likely to have the expertise to overhaul the firm. Because such a firm’s executives ran an industrial operation themselves, they would know better than bankers how to revamp the troubled firm. If from a business partner, they would even know the industry.

Second, the industrial firm would also have a stronger incentive to intervene than a bank. If A “rescued” firm B, necessarily A will increase B’s stock price. An industrial firm could internalize that increase by buying B stock and holding it as a subsidiary or internal division. A bank cannot. By law, a Japanese bank can hold only 5 percent of a firm.

When a rescue does occur in Japan (and tens of thousands of firms simply fail every year), the typical chronology begins with an industrial firm that knows the distressed firm’s business. Mazda, for example, could make good cars but needed to focus on marketing. The trading firms that handled its account stood to lose business if it folded, and for that reason helped shift its managerial focus. To finance the transition, a troubled firm will often need funds, and for that purpose may ask its banks for a loan. Mazda needed money, and obtained it from its banks.

At root, the notion that Japanese bankers rescue firms parallels the notion that Japanese bureaucrats guided the economy. Traditionally, both banks and the government recruited smart college graduates, but IQ alone will not let a graduate build a car. If bankers from the Sumitomo Bank really knew enough to turn around Mazda, they would have done better to build the cars themselves. They did not build their own cars, of course, for the same reason they did not engineer Mazda’s transformation: they did not know how.

#### IV. Conclusions

Despite the elaborate theory on point, our data on troubled firms from both the 1970s and the 1980s provide no support for claims that Japanese main banks rescue troubled firms -- and if they do not rescue ex post, they do not implicitly agree to rescue ex ante. That should not surprise -- for at the point of insolvency, banks and firms have fundamentally conflicting interests. The firm’s employees and shareholders will welcome additional funds. The bank will not. It will not want to chase bad money with good, and even less will it want to chase the bad money only with its own good money, while the firm’s shareholders and other lenders enjoy its obvious charity.

The stories about the “main bank system” are good stories -- but at root they are only stories, and too good to be true, at that. The elaborate Japan-specific theoretical permutations they fostered

may be attractive in the abstract, but bear no relation to bank-firm relations in fact. As in other countries, conflicts of interest matter in Japan. They affect the structures firms adopt, the management strategies they pursue, and the deals they negotiate. A bit less modern theory and a bit more attention to basic conflicts of interest, and we would understand a good bit more about Japanese business.

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Periodicals:

Ekonomisuto: March 7, 1978; March 18, 1978; April 23, 1978; May 2, 1978; June 3, 1978; June 27, 1978;

Shukan daiyamondo: Jan. 10, 1976;

Nikkei bijinesu: Dec. 19, 1977

Chuo koron: Winter 1978 (spec. management prob. issue).

Toyo keizai: June 8, 1974; May 13, 1978; May 27, 1978; Nov. 4, 1978; Feb. 24, 1979; Apr. 20, 1979

Table 1: Loans and Loan Shares to Eidai Industries

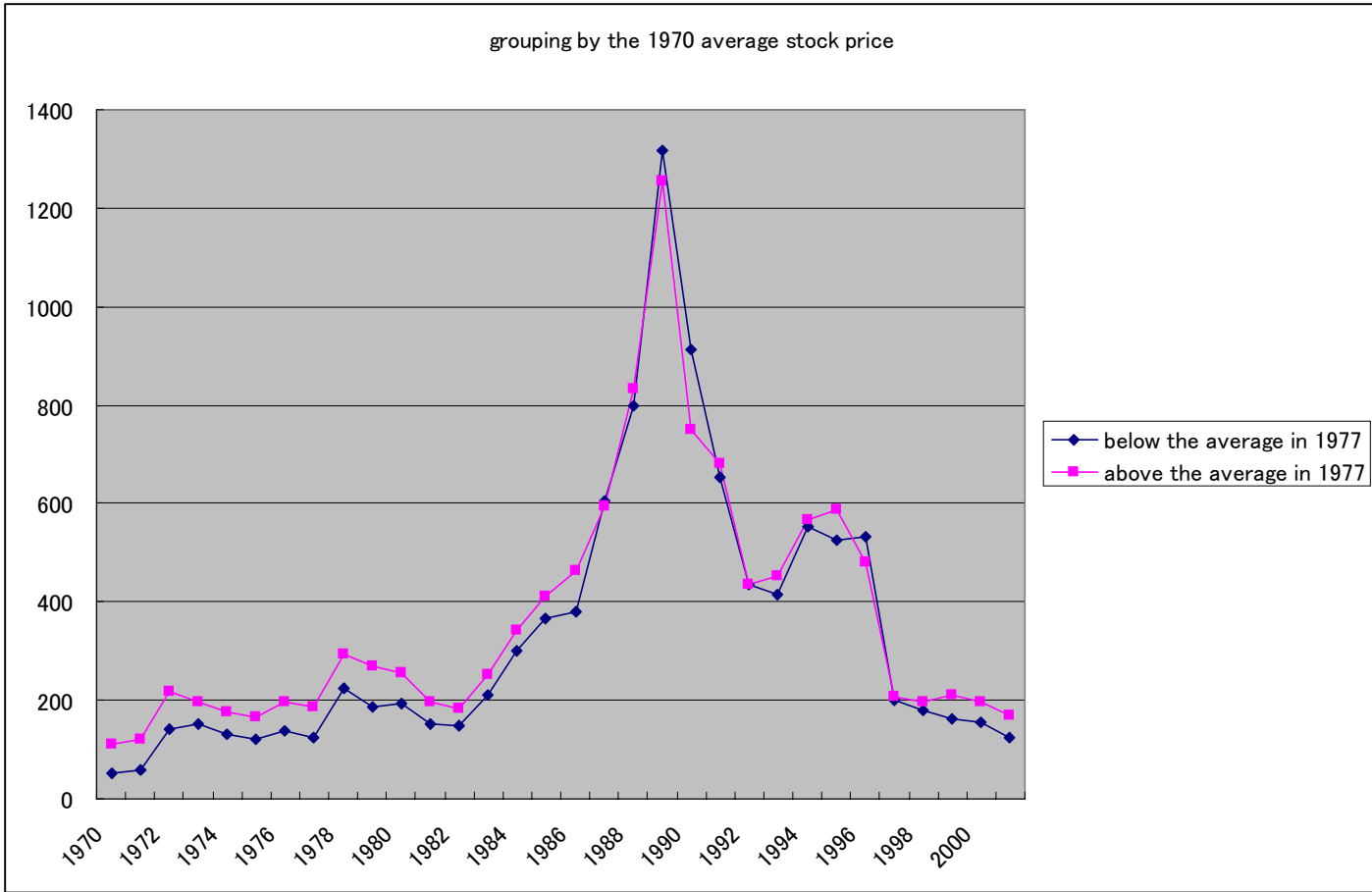
	1971	1972	1973	1974	1975	1976	1977
A. <u>Loan share (%)</u> :							
Daiwa Bank	18.0	10.6	12.4	18.0	21.9	27.8	33.8
Mitsubishi Trust	10.3	10.4	10.1	12.6	12.0	12.2	11.9
DKB	6.7	6.6	5.9	6.4	6.8	7.3	7.9
Bank of Tokyo	2.6	7.3	8.6	11.1	11.8	16.5	21.4
Fuji Bank	1.0	5.6	8.0	7.7	7.7	7.6	8.7
Total of top 5	38.7	40.5	45.1	55.8	60.2	71.3	83.7
B. <u>Total Loans (billion yen)</u> :							
	19.4	39.5	57.2	70.4	73.1	81.3	90.0

Notes: Figures are for the end of December of each year.

Source: Yoshiro Miwa, Firms and Industrial Organization in Japan (Houndmills: Macmillan, 1996), p. 114.

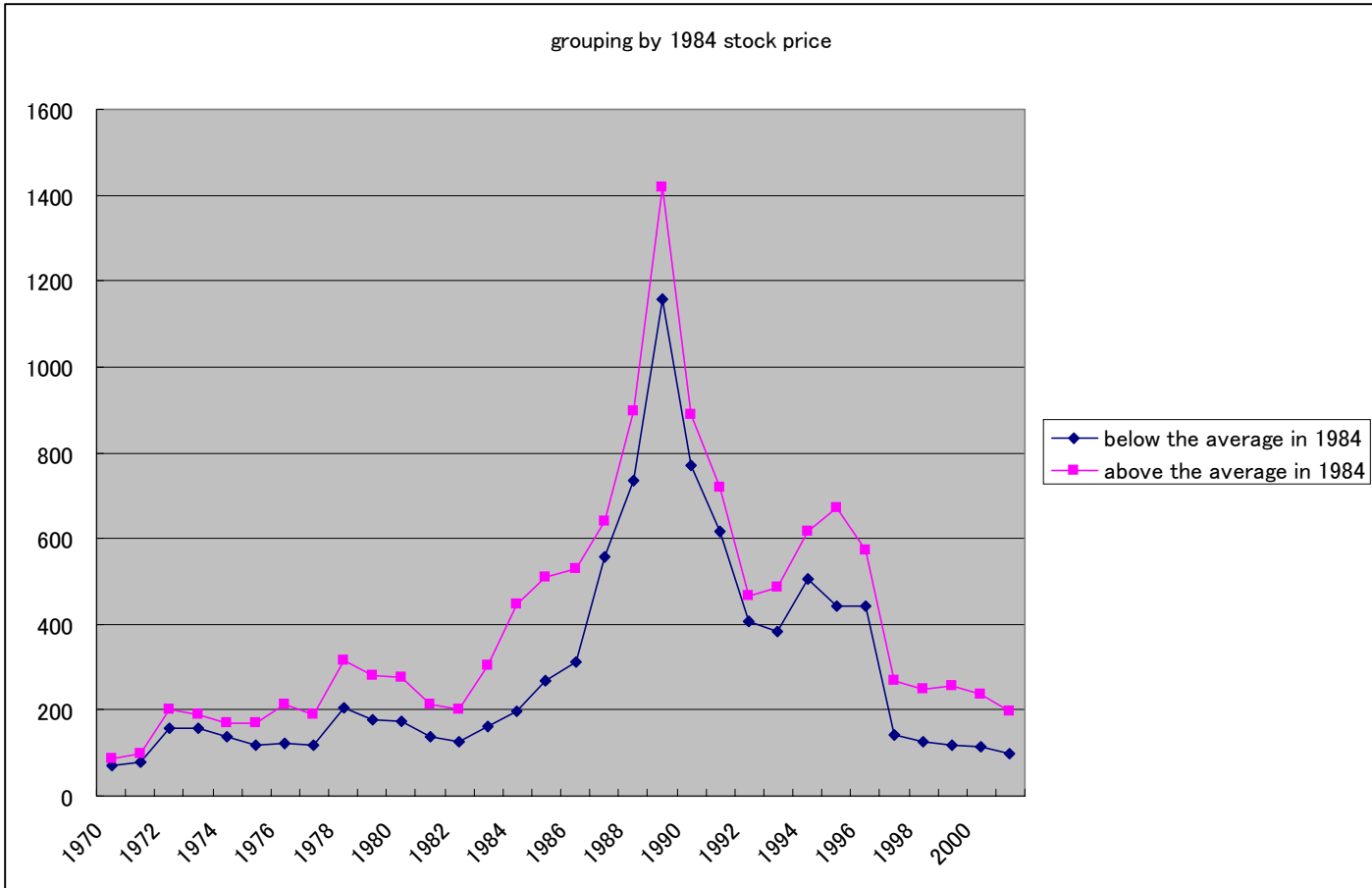


Figure 1: Firms Partitioned by 1970 Stock Prices



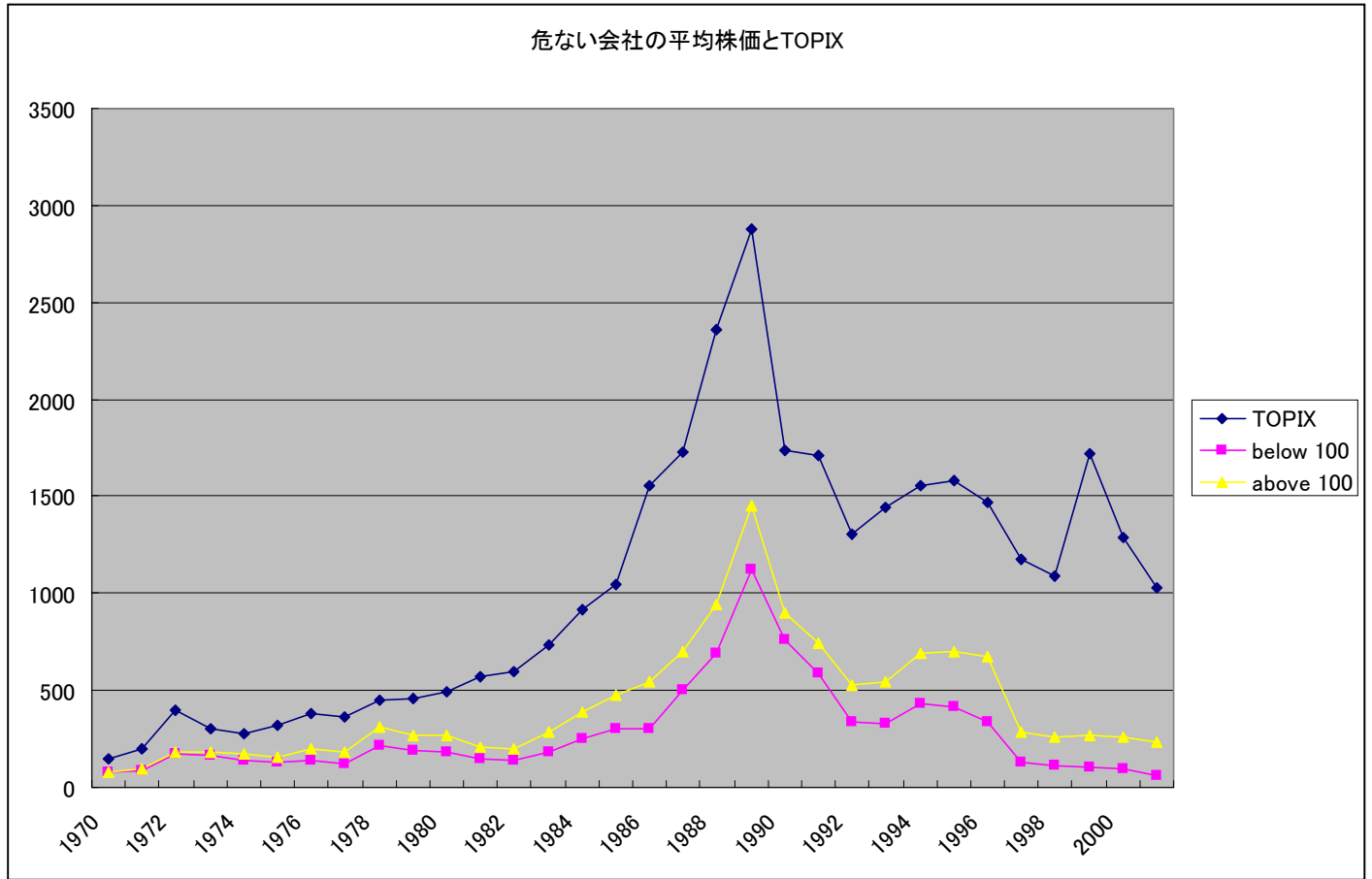
Notes: Firms are those in the 1984 database, as described in the text. They are partitioned by whether they were above or below the median for the group as of 1970. The figure gives the mean price for the firms in the group as of the end of each year.

**Figure 2: Firms Partitioned by 1984 Stock Price**



Notes: Firms are those in the 1984 database, as described in the text. They are partitioned by whether they were above or below the median for the group as of 1984. The figure gives the mean price for the firms in the group as of the end of each year.

Figure 3: Firms Partitioned by 2001 Stock Price, with Market Index



Notes: Firms are those in the 1984 database, as described in the text. They are partitioned by whether they were above or below the median for the group as of 2001. The figure gives the mean price for the firms in the group as of the end of each year.

**Table 2: Selected Summary Statistics**

	n	Min	Mean	Max	.
A. <u>1978 Troubled Firms:</u>					
MB Loan Share 77	324	1	24.710	91.9	
MB Exper Director 78	323	0	.703	7	
Any Bank Exper Dir 78	323	0	1.217	7	
Dominant S/h 78	323	0	.390	1	
Total Bank Loans 77	320	28	18559	236671	
B. <u>1984 Troubled Firms:</u>					
MB Loan Share 84	129	5.794	28.736	100	
MB Exper Director 84	131	0	.855	4	
Any Bank Exper Dir 84	131	0	1.489	9	
Dominant S/h 84	131	0	.389	1	
Total Bank Loans 84	131	0	39775	509676	

Sources: Toyo keizai tokei geppo, April 1978; Shukan toyo keizai, Aug. 11, 1984; Toyo keizai, ed., Kigyo keiretsu soran [Firm Keiretsu Overview] (Tokyo: Toyo keizai, as updated).

**Table 3: Determinants of Survival:  
Probit Regression Results**

*Dependent Variable: TSE Listed in 2001*

	<i>Independent Variables From --</i>			
	1978	1981	1984	1987 .
MB Loan Share	-.010 (1.17)	-.014 (1.71)	-.015 (2.22)	-.024 (3.04)
MB Exper Director (no.)	-.095 (0.78)	.141 (1.16)	-.060 (0.54)	-.116 (0.74)
Dominant S/h	-.118 (0.44)	.040 (0.16)	.079 (0.29)	-.118 (0.44)
Total Bank Loans (x10 <sup>4</sup> )	-.025 (1.31)	-.030 (2.15)	.027 (1.78)	-.013 (1.00)
Pseudo R <sup>2</sup>	0.03	0.04	0.06	0.00
n	131	132	129	121

Notes: The data set is the 1984 firms, as explained in the text. In each case, we give the coefficients, followed by the absolute value of the z-statistics (calculated with robust standard errors) in parentheses. The regressions include a constant term, not reported here.

Sources: See Table 2.

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**Table 4: Determinants of Merger:  
Probit Regression Results -- Disappearing Firms Only**

*Dependent Variable: Disappeared Through Merger*

	<i>Independent Variables From --</i>			
	1978	1981	1984	1987 .
MB Loan Share	.005 (0.37)	-.014 (1.27)	-.005 (0.47)	.018 (1.13)
MB Exper Director (no.)	.636 (1.37)	.751 (1.78)	.433 (1.46)	-.289 (0.50)
Dominant S/h	1.200 (1.74)	1.341 (1.80)	1.272 (1.64)	.960 (1.26)
Total Bank Loans (x10 <sup>4</sup> )	.060 (1.71)	.041 (1.02)	.033 (1.22)	.000 (1.51)
Pseudo R <sup>2</sup>	0.18	0.17	0.13	0.18
n	32	33	29	20

Notes: The data set is the 1984 firms, as explained in the text. In each case, we give the coefficients, followed by the absolute value of the z-statistics (calculated with robust standard errors) in parentheses. The regressions include a constant term, not reported here.

Sources: See Table 2.

**Table 5: Bank Loans at the Troubled Firms**

A. <u>Total bank loans (per firm average):</u>								
	1972	1978	1981	1983	1984	1987	1990	1996
All firms	16182	32055	37876	41870	39775	40153	38972	48608
<i>By amount of bank debt</i>								
Very large	88730	191977	250569	271031	255853	266234	229873	273926
Large	14396	24914	24952	27497	26552	27088	25705	29946
Small	3528	6592	6224	7189	7202	10841	19069	35020
Very small	2096	3658	3021	2745	2562	3199	7008	10362
B. <u>Per firm average growth in total bank loans (100+%):</u>								
	1972-78	1978-84	1981-84	1984-87	1987-90	1990-96		
All firms	198	124	105	101	97	125		
<i>By amount of bank debt</i>								
Very large	216	133	102	104	86	119		
Large	173	107	106	102	95	116		
Small	187	109	116	151	176	184		
Very small	175	70	85	125	219	148		
C. <u>Total main bank loans (per firm average):</u>								
	1972	1978	1981	1983	1984	1987	1990	1996
All firms	3219	5823	6874	7056	6692	7351	8021	9955
<i>By amount of bank debt</i>								
Very large	12539	29394	39084	38514	36063	41613	43458	56535
Large	4440	5837	5906	5855	5561	6632	6092	6161
Small	1049	1563	1543	2015	2147	2335	2755	4952
Very small	508	967	891	979	943	1056	1523	2457
D. <u>Main bank loan share (%):</u>								
	1972	1978	1981	1983	1984	1987	1990	1996
All firms	19.9	18.2	18.1	16.9	16.8	18.3	20.6	20.5
<i>By amount of bank debt</i>								
Very large	14.1	15.3	15.6	14.2	14.1	15.6	18.9	20.6
Large	30.8	23.4	23.7	21.3	20.9	24.5	23.7	20.6
Small	29.7	23.7	24.8	28.0	29.8	21.5	14.4	14.1
Very small	24.2	26.4	29.5	35.7	36.8	33.0	21.7	23.7

Notes:

\* The firms are the 134 stock-exchange listed firms listed in the August 11, 1984 issue of Shukan toyo keizai as having had negative after-interest profits for three years in a row.

\* Debt sizes: Very large -- Firms with over 100 billion yen in bank debt as of March 1984 (15 firms); large -- firms with 10-100 billion yen in bank debt (40 firms); small -- firms with 5-10 billion yen in bank debt (25 firms); very small -- firms with less than 5 billion yen in bank debt (54 firms).

\* The average main bank loan share is calculated from the group loan amounts as a whole, rather than as an average of the per firm loan shares.

Sources: See Table 2.

**Table 6: Number of Firms with Increase or Decrease  
in Main Bank Loan Share,**

	1972-78	1978-81	1981-84	1984-87	1987-90	1990-96
VL group						
Increase	6	8	3	10	9	8
Unchanged			2			
Decrease	9	7	10	3	4	4
L group						
Increase	15	23	17	22	24	21
Unchanged		1		2	1	1
Decrease	22	16	23	12	11	12
S group						
Increase	9	14	13	12	12	14
Unchanged				1		
Decrease	15	11	12	9	9	5
VS group						
Increase	33	31	27	27	18	28
Unchanged		2		3	1	1
Decrease	14	15	22	19	30	18

Note: The firms are the 134 stock-exchange listed firms listed in the August 11, 1984 issue of Shukan toyo keizai as having had negative after-interest profits for three years in a row.

The firms are partitioned by debt size: very large -- firms with over 100 billion yen in bank debt as of March 1984 (15 firms); large -- firms with 10-100 billion yen in bank debt (40 firms); small -- firms with 5-10 billion yen in bank debt (25 firms); very small -- firms with less than 5 billion yen in bank debt (54 firms).

For each cell, we give the number of firms where the change in **Main Bank Loan Share** increased, decreased, or remained unchanged during the period at issue.

Sources: See Table 2.

**Table 7: Determinants of Main Bank Share Increase:  
OLS Regression Results**

A. Prior to Distress:

*Dependent Variable: Main Bank Share Increase, 1981-1984 (n = 128)*

81 MB Loan Share	-.080 (0.63)	-.072 (0.57)	-.067 (0.55)	-.051 (0.43)
81 MB Exper Dir (no.)	.718 (0.56)			
81 MB Exper Dir (dum)		.271 (0.10)		
81 Any Bk Exp Dir (no.)			-.407 (0.87)	
81 Any Bk Exp Dir (dum)				-3.396 (1.26)
81 Dominant S/h	-2.973 (1.12)	-3.183 (1.20)	-3.484 (1.34)	-3.973 (1.42)
81 Tot Bank Lns (x10 <sup>4</sup> )	-.196 (2.02)	-.168 (1.91)	-.128 (1.62)	-.118 (1.61)
R <sup>2</sup>	.03	.03	.03	.04

*Dependent Variable: Main Bank Share Increase, 1978-1984 (n = 127)*

78 MB Loan Share	-.268 (2.75)	-.229 (2.42)	-.239 (2.58)	-.230 (2.50)
78 MB Exper Dir (no.)	3.629 (1.40)			
78 MB Exper Dir (dum)		-.284 (0.09)		
78 Any Bk Exp Dir (no.)			1.035 (0.64)	
78 Any Bk Exp Dir (dum)				-.075 (0.02)
78 Dominant S/h	-2.426 (0.98)	-3.956 (1.65)	-3.413 (1.42)	-3.909 (1.51)
78 Tot Bank Lns (x10 <sup>4</sup> )	-.495 (2.95)	-.368 (2.43)	-.478 (2.06)	-.372 (2.64)
R <sup>2</sup>	.12	.07	.08	.07

B. After distress:

*Dependent Variable: Main Bank Share Increase, 1984-1987 (n = 119)*

84 MB Loan Share	-.326 (2.80)	-.320 (2.72)	-.305 (2.62)	-.307 (2.61)
84 MB Exper Dir (no.)	1.894 (1.85)			
84 MB Exper Dir (dum)		3.236 (1.55)		
84 Any Bk Exp Dir (no.)			.189 (0.33)	
84 Any Bk Exp Dir (dum)				.890 (0.42)
84 Dominant S/h	-2.358 (1.18)	-2.822 (1.37)	-3.382 (1.55)	-3.286 (1.56)
84 Tot Bank Lns (x10 <sup>4</sup> )	-.306 (2.54)	-.272 (2.54)	-.243 (2.09)	-.237 (2.34)
R <sup>2</sup>	.26	.25	.24	.24

*Dependent Variable: Main Bank Share Increase, 1984-1990 (n = 118)*

84 MB Loan Share 84	-.702 (4.08)	-.698 (4.17)	-.672 (4.04)	-.676 (4.05)
84 MB Exper Dir (no.)	3.275 (1.97)			
84 MB Exper Dir (dum)		7.260 (1.97)		
84 Any Bk Exp Dir (no.)			1.229 (1.15)	
84 Any Bk Exp Dir (dum)				4.424 (1.22)
84 Dominant S/h	-1.180 (0.36)	-1.637 (0.49)	-2.226 (0.63)	-1.998 (0.57)
84 Tot Bank Lns (x10 <sup>4</sup> )	-.393 (2.04)	-.357 (2.14)	-.358 (1.82)	-.307 (1.90)
R <sup>2</sup>	.38	.38	.36	.36

Notes: The data set is comprised of the 1984 firms, as explained in the text. In each case, we give the coefficients, followed by the absolute value of the t-statistics (calculated using OLS with robust standard errors) in parentheses. The regressions include a constant term, not reported here.

Sources: See Table 2.



**Table 8: Determinants of Total Loan Increase:  
OLS Regression Results**

A. Prior to Distress:

<i>Dependent Variable: Total Loan Increase, 1981-1984 (n = 129)</i>				
81 MB Loan Share	.548 (1.35)	.567 (1.39)	.516 (1.34)	.578 (1.47)
81 MB Exper Dir (no.)	-4.254 (0.91)			
81 MB Exper Dir (dum)		-11.450 (1.12)		
81 Any Bk Exp Dir (no.)			-4.005 (2.08)	
81 Any Bk Exp Dir (dum)				-16.501 (1.56)
81 Dominant S/h	14.745 (1.40)	15.111 (1.44)	13.514 (1.32)	12.608 (1.18)
81 Tot Bank Lns (x10 <sup>3</sup> )	-.025 (0.77)	-.025 (0.85)	-.010 (0.31)	-.022 (0.79)
R <sup>2</sup>	.07	.08	.09	.09

<i>Dependent Variable: Total Loan Increase, 1978-1984 (n = 128)</i>				
78 MB Loan Share	1.056 (1.11)	1.018 (1.09)	1.096 (1.17)	1.039 (1.11)
78 MB Exper Dir (no.)	-3.522 (0.52)			
78 MB Exper Dir (dum)		.464 (0.03)		
78 Any Bk Exp Dir (no.)			-9.283 (2.24)	
78 Any Bk Exp Dir (dum)				-6.772 (0.49)
78 Dominant S/h	16.454 (1.20)	17.943 (1.30)	13.590 (1.04)	15.916 (1.13)
78 Tot Bank Lns (x10 <sup>3</sup> )	.065 (0.92)	.052 (0.73)	.147 (1.88)	.065 (0.95)
R <sup>2</sup>	.05	.05	.08	.06

B. After Distress:

<i>Dependent Variable: Total Loan Increase, 1984-1987 (n = 120)</i>				
84 MB Loan Share	.734 (0.79)	.795 (0.88)	.742 (0.83)	.780 (0.88)
84 MB Exper Dir (no.)	-.906 (0.13)			
84 MB Exper Dir (dum)		-14.612 (0.84)		
84 Any Bk Exp Dir (no.)			-2.427 (0.61)	
84 Any Bk Exp Dir (dum)				-18.303 (0.87)
84 Dominant S/h	34.795 (1.32)	32.101 (1.26)	33.390 (1.27)	30.275 (1.28)
84 Tot Bank Lns (x10 <sup>3</sup> )	.082 (0.82)	.099 (1.03)	.099 (1.00)	.093 (1.07)
R <sup>2</sup>	.03	.03	.03	.03

<i>Dependent Variable: Total Loan Increase, 1984-1990 (n = 119)</i>				
84 MB Loan Share	7.402 (0.95)	7.658 (0.98)	6.965 (0.94)	7.385 (0.97)
84 MB Exper Dir (no.)	-56.786 (1.15)			
84 MB Exper Dir (dum)		-192.754 (1.35)		
84 Any Bk Exp Dir (no.)			-33.083 (1.29)	
84 Any Bk Exp Dir (dum)				-216.075 (1.37)
84 Dominant S/h	248.885 (1.53)	241.822 (1.51)	257.933 (1.50)	224.075 (1.51)
84 Tot Bank Lns (x10 <sup>3</sup> )	.539 (0.86)	.569 (0.93)	.576 (0.94)	.546 (0.93)
R <sup>2</sup>	.06	.07	.06	.07

Notes: The data set is comprised of the 1984 firms, as explained in the text. In each case, we give the coefficients, followed by the absolute value of the t-statistics (calculated using OLS with robust standard errors) in parentheses. The regressions include a constant term, not reported here.

Sources: See Table 2.

