

# **Loans to Japanese Borrowers**

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\*The ideas expressed here do not represent the opinions of the Board of Governors of the Federal System, or its staff. Part of this project was developed, and much of the early data collected, with Mikari Kashima at the Bank of Japan.

Though the Japanese banking system has been the focus of numerous empirical studies, there is scant empirical evidence on the characteristics of loan contracts between Japanese firms and their banks. This paper incorporates relatively new, contract-specific data on bank loans to large borrowers to help fill this gap. Specifically, we examine how loans to Japanese companies compare with loans to similar non-Japanese companies, and how loans to Japanese borrowers vary according to the nationality of the bank making the loan. We then gauge the value of bank loans to Japanese borrowers by estimating abnormal stock price returns around the announcement of new bank loans.

Roughly two decades have past since Japan began deregulating its financial sector. The period since then has been tumultuous for both banks and their borrowers.<sup>1</sup> During the 1980s, large, high-quality firms migrated from banks to capital markets, forcing banks to lend to a wider scope of customers. Much of the new lending went to small firms and to the real estate sector, substantially increasing banks' credit exposure. Bank earnings declined through the beginning of the period and then fell precipitously after the collapse the Japanese asset price "bubble" around 1990. Today, Japanese banks continue to be plagued by severe asset-quality problems and low profitability. Non-financial firms have fared no better. Over the last ten years, firms have experienced lower growth, profitability, and productivity than their peers in other developed countries. Average bankruptcy rates are currently at a near all-time high and large, listed firms are declaring bankruptcy at rates that are unprecedented by Japanese standards.

Against this background, an analysis of the lending practices of Japanese banks could yield insight into several important questions. First, why have Japanese banks remained so unprofitable? Banks from other developed nations have experienced record profits over the last 10 years as Japanese banks languished. The data collected for this paper allow us to compare the

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<sup>1</sup> Hoshi and Kashyap (2000; 2001, chapters 7 & 8) provide an in-depth overview and analysis of the problems currently afflicting the Japanese financial sector.

pricing of loans to Japanese borrowers with the pricing of borrowers from other countries, controlling for the riskiness of the loan.

Second, how has the nature of lending to large borrowers changed with deregulation? The migration by large borrowers to non-bank financial sources could have induced Japanese banks to offer new types of loans and services to maintain some relationship with their best customers. For instance, banks might now concentrate on methods of financing—such as commitment lending—that are not easily substituted by capital market financing. Loan commitments are the primary mechanism that large non-Japanese banks use to lend to large borrowers and generate much of the non-interest income accruing to these banks.<sup>2</sup> Banks could now also rely on customers that—though large—are riskier prospects than before deregulation. Our data enable us to track the types and (to some extent) riskiness of loans being offered to large borrowers from the 1980s to present.

Third, are bank loans valuable to Japanese borrowers—that is, does a borrower’s stock price react positively to the announcement of a new bank loan in Japan? Ample U.S. evidence indicates that stock markets respond favorably to announcements by firms of new bank loan agreements, leading researchers to argue that bank lending is somehow “special” because announcements of other forms of corporate financing are typically greeted with negative or zero changes in stock prices.<sup>3</sup> Yet, it is a-priori unclear how investors will greet a new bank loan in Japan. On the one hand, given their historically close relationships with borrowers, Japanese banks may be valuable “inside stakeholders” that can efficiently screen and monitor borrowers, in which case a new loan could convey positive information. On the other hand, the mismanagement

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<sup>2</sup> James and Smith (2000) report that out a sample of 15,661 loans to medium and large-sized borrowers made between 1987 and 1997, 84% contain a loan commitment component.

<sup>3</sup> James (1987) finds that announcements of private debt placements generate negative, but insignificant abnormal returns. Wruck (1989) obtains a similar result for private equity placements. Preece and Mullineaux (1994) and Billett, Flannery, and Garfinkel (1994) show that announcements by the borrower of bank-type loans offered by non-bank institutions can generate positive abnormal returns similar to a bank loan announcement.

implicit in a decade of poor loan quality may suggest that Japanese banks are unable to properly screen and monitor new loans. Indeed, a loan renewal may convey *bad* information about a borrower when banks are more likely to refinance their poorest quality loans, a situation that might arise when banks are impaired, as in Japan. Impaired banks avoid costly increases to loan loss provisions by rolling over loans that should be classified as non-performing.

We analyze data from two samples of Japanese bank loans. The first sample is obtained from Loanware, an archive of loan deals from around the globe. The sample contains 874 loans to Japanese borrowers dating back to 1980, though nearly two-thirds of the observations come from the last three years in the sample, 1999-2001. Loanware is primarily marketed as a source of information for banks that want to participate in loan syndicates. The second sample contains 110 public loan announcements made by large Japanese firms. These announcements are gleaned from news articles and company press releases over the period 1999 to 2001.

Though highly detailed in nature, there are several reasons why our data might not properly represent the typical loan to a Japanese business. First, data on loans to large firms are likely to differ from loans made to small and medium-sized firms, which today represent a growing share of the business at Japanese banks. Second, the Loanware data likely overstate—even for large firms—the importance of syndicated lending in Japan, which has grown in popularity but still represents a small fraction of total lending in the country [footnote]. Similarly, syndicated loans dominate the set of loan announcements. Third, Japanese loans are underrepresented in Loanware relative to other developed countries. The 874 Japanese loans are a small fraction of the 120,000 deals available in the database. Fourth, the methods Loanware uses to collect loan information makes it hazardous to draw conclusions based on time series patterns in the data. For instance, the larger quantity and improved accuracy of observations in the latter years of the database likely reflects both improvements in disclosure that have led to better sampling and changes in the global structure of bank lending. Separating these two effects will be challenging. Despite these drawbacks, we believe the data provide an important glimpse at the

nature of loans to Japanese borrowers. Indeed, a separate goal of this paper is to identify some of the pitfalls in using these types of data.

#### [SUMMARY OF RESULTS]

The rest of the paper proceeds as follows. Section 2 provides a description of the Loanware database and compares the representation of Japanese borrowers in the data set to borrowers from some other developed nations. Section 3 compares contract characteristics of Japanese borrowers to borrowers in other developed nations. Section 4 reports the results of the analysis of stock price reactions to loan announcements. Section 5 concludes.

## **2. Overview of Loanware**

Loanware is a global database that tracks loan contracts on medium and large-sized borrowers. It is used primarily by banks interested in participating in loan syndicates, or for obtaining detailed information on particular segments of the syndicated loan market. Dealogic, a company owned jointly by Euromoney Publishers and Compusoft Software, maintains the Loanware database. A typical record in Loanware includes the borrower's name, industry, nationality, and a variety of credit ratings; the loan type, amount, maturity, purpose, pricing and fee information, and whether or not the loan is secured with collateral; the identity of bank(s) arranging the loan, and the identity other banks participating in the loan. Records are created for each "tranche", or part of a loan, and any one loan deal, or "facility" in Loanware parlance, can contain multiple tranches.<sup>4</sup> The information currently fed into *Loanware* can come from a variety of sources, including government filings, company annual reports, and public news releases, but Dealogic obtains most of the data—particularly for borrowers outside the U.S—directly from the banks arranging the loan deals. These banks compete for positioning in "league tables" and therefore have a strong incentive to document as many deals as possible. For loan data predating

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<sup>4</sup> The Dealogic terminology differs from that of its competitor, Loan Pricing Corporation, which maintains the Dealscan database. In Dealscan, a "facility" refers to an individual component of the loan (i.e., a Loanware "tranche"), not the entire loan deal.

the early 1990s, Dealogic relies on information from stories in archived editions of *Euromoney* and *Euroweek*. For that reason, the pre-1990s data should be treated with extra caution. Loanware contains some “traditional” bilateral loan observations, but syndicated loans clearly dominate the database.

Table 1 reports the distribution across years of the 874 loans to Japanese borrowers on Loanware through 2001. The table also reports similar distributions for borrowers from France, Germany, the U.K., and the U.S., and for the entire Loanware universe. In subsequent tables, we will use the combination of observations from the four countries—France, Germany, U.K., and U.S.—to create a benchmark for comparison with Japanese borrowers.

U.S. borrowers dominate the Loanware universe, accounting for over half of all the observations. U.K. borrowers are also well represented, comprising about 7% of the total universe. The relative preponderance of observations from the U.S. and U.K. reflects the popularity of syndicated borrowing in these two countries. By comparison, according to the Bank for International Settlements (BIS), claims on U.S. and U.K. borrowers represented XX% and YY% of the global total, respectively [GET FROM BIS]. With the exception of the years 2000 and 2001, Japan has the fewest borrowers in the data set of the five countries listed in Table 1, but over the entire sample period Japanese borrowers are about as well represented as German borrowers. Total claims on borrowers these two countries represent ZZ% (Japan) and KK% (Germany). The fact that these two countries have large banking systems, yet contribute relatively few borrower observations to the data set, likely reflects the countries’ strong reliance on bilateral loans rather than syndicated loans.

Table 1 also reports the yearly proportion of Japanese loans in which the lead arranging bank is foreign. A foreign bank has its primary headquarters or a parent bank located outside of Japan. The pattern in the table hints the “evolution” in the collection of Japanese loans by Loanware. In the early part of the sample, foreign lenders arrange nearly all of the loans. Apparently, Japanese banks were reluctant to divulge information on their (mostly) bilateral bank

relationships. Japanese-led loans begin to appear in 1988 and constitute at least half of the sample thereafter. But the Japanese-led loan records fail to identify most their borrowers by name until after 1997, suggesting banks provided information conditional on borrower anonymity. After 1997, this practice ceases and all borrowers are identified by name. Around 1997, Dealogic changed its reporting policy and required that the borrower be identified as a condition for having a loan deal count towards a bank's league-table score.

[Bridge/Summary here?]

### **3. Comparing Japanese loan contracts to benchmark contracts**

We now turn to examining specific characteristics of Japanese loan contracts. In Table 2, we compare the Japanese loan contracts to contracts from French, German, U.K., and U.S. borrowers. We will often refer to the latter group as the “benchmark” borrowers. We look at annual values of five separate characteristics related to the loan contract or the borrower, (1) the median Moody's current issuer rating for the borrower, (2) the median loan amount, in millions of U.S. dollars, (3) the median loan maturity, in years, (4) the proportion of loans that are secured with collateral, and (5) the median loan premium (including facility and usage fees), measured in basis points above LIBOR in the currency in which the loan is denominated. The values of these characteristics are based on fields directly available in Loanware.

Not all borrower records contain complete information for every characteristic. The bottom of Table 2 lists the number of observations and percentage of all records available for each characteristic over the sample period. Only 32.3% of the Japanese borrower records contain a Moody's rating, while 19.5% contain LIBOR pricing information. Similarly, 21.5% of the benchmark borrowers have a Moody's rating and 55.8% contain LIBOR pricing information.<sup>5</sup>

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<sup>5</sup> A firm must, at minimum, have had outstanding long term debt to be rated to have a current Moody's issuer rating. Although Loanware contains information on other credit ratings, the current Moody's long term field contains, by far, is the most populated. Some records also contain pricing information that use benchmarks other than LIBOR, including other interbank offer rates, such as TIBOR (Tokyo), HIBOR (Hong Kong), or EURIBOR (Euro market), or a bank prime rate. However, these observations are relatively infrequent.

Such censoring could bias some of our measures. For instance, estimates of borrower credit quality are likely to be biased upward since borrowers with a Moody's rating have issued public debt on an international market and are therefore likely to be of a higher credit quality than non-rated borrowers. Nevertheless, conditional on their availability, our measures have the advantage of being consistently measured across borrowers in all countries, which provides a meaningful means for comparison.

Japanese borrowers in the sample are rated to be less risky, on average, than borrowers from the four other developed nations.<sup>6</sup> The average of the median Moody's ratings for Japanese borrowers over the entire sample period is Baa1, compared with an average between Baa2 and Baa3 for the benchmark countries. A rating of Baa3 is the lowest rating a firm can receive and still be considered "investment grade." The relative difference in risks between borrowers in Japan and the benchmark countries holds for most years in sample. For instance, the median benchmark borrowers over the years 1990-2001 are rated "junk" while the median Japanese borrower is still rated investment grade. Japanese loans also tend to be larger, on average, than loans in the other countries.

The average maturity of the Japanese loans is slightly longer than the benchmark loans over both the entire 1980-2001 period and over the 1990-2001 subperiod. However, in recent years, the median maturity of Japanese loans has dropped to one year, which is substantially below the 3-5 year median among the benchmark countries. There are several potential explanations for the change in Japanese loan maturities. First, the fraction of loans made under commitment increased drastically in the late 1990s (a point which we return to below), and loan commitments tend to be of a shorter maturity than traditional term loans. Still, the median maturity of loan commitments in the benchmark countries (not shown) is greater than one year. Second, Basel Accord rules exempt the undrawn portion of one-year (or less) loan commitments

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<sup>6</sup> We calculate average Moody's ratings by converting the ratings to a linear integer scale (i.e., Aaa = 1, Aa1 = 2, . . . , C = 21).

from capital charges—that is, the undrawn portion of the commitment receives a zero-weight in calculating risk-weighted assets. Because Japanese banks have been capital-constrained since the late 1990s, they have a strong incentive when offering loan commitments, to offer them at a one-year maturity. Third, Japanese banks might offer shorter maturity loans to manage their exposure to poorly performing borrowers. Requiring an annual renewal would aid a bank’s ability to monitor a troubled borrower and allow the bank to quickly reject a borrower that is judged too impaired to continue. Alternatively, short-maturity loans make it easier to rollover loans to troubled borrowers, thus avoiding being forced to classify the loans as non-performing. Such “evergreening” practices are reportedly common among Japanese banks.

Japanese loans are also much less likely to be secured with collateral than the benchmark loans. This feature of the sample is surprising given that Japanese banks have tended historically to emphasize collateral value when making loans. One potential explanation for the finding might be that Japanese banks rely on buildings and land for collateral, whereas the collateral backing the types of loans in Loanware—inventory, receivables, etc.—are uncommon in Japan. Under this scenario, Japanese banks would rely on other contract characteristics (such as the maturity of the contract) to manage risk.

Finally, the interest premium charged on Japanese loans above LIBOR tends to be much smaller, on average, than the premium charged on benchmark loans. These differences are especially apparent after 1990, where the average Japanese loan premium of 80 basis points is less than half the 164 basis point benchmark loan premium. The difference in the amounts charged on the loan could be due to differences in risk. The average benchmark Moody’s credit rating of Ba1 is two notches lower than the average Japanese rating of Baa2, and the benchmark loans are smaller and more likely to be secured, which could indicate that the loans made to benchmark borrowers are riskier.

On the other hand, the differences in loan prices could also reflect differences in *how* loans are priced in Japan after controlling for the riskiness of the borrower. Japanese banks have a

reputation for foregoing adequate risk pricing in favor of competing to gain – or retain – market share. There is anecdotal evidence to suggest that Japanese banks deserve this reputation. In the 1980s, international banks complained that Japanese banks could price more aggressively because Japanese regulators allowed their banks to maintain relatively low levels of regulatory capital. More recently, Japanese banks, and the analysts that follow them, have cited intense domestic competition, combined with the implicit government guarantee to allow no more banks to fail, as the primary reason that banks have not improved their ability to adequately risk-price loans. In addition, banks may keep prices low to weak borrowers, either because strong relationship commitments hinder the ability to terminate the loan, or because the bank wants to keep the loan “performing” to avoid having to hold reserves against losses on the loan. Overall, the fact that banks have been so unprofitable for so long—and that profit outlooks for the near future are so dismal – suggests that Japanese banks are pricing loans below profitable levels.

The case would be more striking if loan pricing differences existed between Japanese and foreign bank on loans to Japanese borrowers. Table 3 provides summary statistics of the loan characteristics of Japanese borrowers, sorted by whether the lead arranging bank was Japanese or foreign. Interestingly, the statistics in the table suggest that foreign lenders tend to lend to observationally less risky borrowers than Japanese banks. Borrowers from non-Japanese banks are rated higher by Moody’s and have larger loans with longer terms to maturity. Moreover, there is less dispersion, as measured by standard deviation, in the risk characteristics across the non-Japanese loans, compared with the Japanese loans. But foreign banks charge *higher loan premiums*, on average, than Japanese banks do. The median spread of LIBOR for non-Japanese banks is 75.0 basis points during the 1990-2001 period compare with 47.5 basis points for Japanese banks. Pricing by non-Japanese banks also exhibits more dispersion than Japanese banks. Foreign loan prices have a standard deviation of 72.4 basis points compared with only 48.6 basis points in the prices of Japanese banks. Additionally, non-Japanese banks also tend to require collateral much more often than the Japanese banks.

The results in Table 3 suggest that non-Japanese banks charge higher prices and are able to vary their prices more to Japanese customers than Japanese banks. Why are foreign banks not priced out of the Japanese market? There are two potential explanations. First, high quality Japanese borrowers may be willing to pay a premium for loan approval from a high quality bank. Billett, Flannery, and Garfinkel (1995) show that borrower stock price reactions to loan announcements are positively related to the quality of the lending bank, as measured by the bank's credit rating. Indeed, some Japanese banks are precluded from borrowing from their own country's banks. Internal guidelines at Sony Corporation, the large Japanese electronics maker, actually prohibit the company from borrowing from any bank with a Moody's bank financial strength rating of "C," which is well above the highest-rated major Japanese bank (Dvorak, 2001). Second, the Japanese market could be segmented into firms that foreign banks are willing to lend to, i.e., high-quality firms, and firms that only Japanese banks are willing to finance, i.e., unprofitable firms with pessimistic future prospects. Somewhat perversely, interest rates in the Japan-only market could be lower than the high-quality market because the poor quality firms that are kept alive in the Japan-only market are unable to pay high interest rates.

First, Table 4 attempts to estimate the price differences while holding other risk variables constant. Using the sample of loans to Japanese borrowers, we regress the loan premium on a set of control variables, plus a foreign bank dummy variable that equals one when the lead arranging bank is non-Japanese and zero for loans Japanese banks. The idea is to see whether the foreign bank dummy is significantly negative after controlling for characteristics related to the riskiness of the loan. Our control variables start with the four other characteristics listed in Table 2: Moody's current issuer credit rating (converted to a linear integer scale), the U.S. dollar loan amount, the loan maturity, and a dummy variable set equal to one if the loan is secured. We then add a dummy variable set equal to one when the borrower is a non-financial corporation, a dummy variable set equal to one when the type of loan is a loan commitment, and three time

dummies that separately identify the periods 1980-84, 1985-89 (the intercept captures the impact of the 1995-2001 period).

Our regression specification is problematic for two reasons. First, it is likely that we omit relevant firm-specific variables that proxy for the riskiness of the borrower. For example, we include no measure of the firm's size (though loan amount will be positively correlated with firm size), stock market measures of risk such as beta, or any firm-level leverage measure. Second, the contract-specific characteristics included as right-hand side variables are likely to be correlated with the regression error term because the values of the contract variables are determined simultaneously with loan price. Correct estimation would require that we use instrumental variables. For now, we simply recognize that our estimates are likely to reflect simultaneity biases and note that they should be interpreted with caution.

The first two regressions include all 169 observations that have pricing information on the borrowers. In these regressions, the foreign bank dummy is statistically significant and indicates that, holding the other variables constant, foreign banks charge Japanese borrowers about 25 basis points more above LIBOR than Japanese banks. If we exclude observations that do not have ratings information, the pricing differences between foreign and Japanese banks become much smaller and statistically indistinguishable from zero. In fact, the average loan premium on loans to Japanese borrowers with a loan rating is *higher* than for borrowers not rated, despite the conjecture that un-rated borrowers are likely to be more risky.

[SOMETHING ON THE EXPLOSION OF LOAN COMMITMENTS]

#### **4. Stock price reaction to loan announcements**

[STILL TO COME]

#### **5. Conclusion**

[STILL TO COME]

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**Table 1: Characteristics of Loanware sample for Borrowers from Japan, France, Germany, U.K., and U.S., 1980-2001**

Year	Japanese borrowers:		Number of loans from:				Number of all Loanware loans
	Number of loans	Proportion arranged by foreign bank	France	Germany	U.K.	U.S.	
1980	5	1.00	16	17	35	59	1,120
1981	7	1.00	22	13	35	133	1,552
1982	9	1.00	38	4	41	139	1,665
1983	11	1.00	30	12	37	134	1,243
1984	10	0.80	32	19	88	255	1,789
1985	3	1.00	26	8	146	270	1,533
1986	10	0.70	40	25	194	271	1,501
1987	6	0.83	61	18	333	736	2,209
1988	11	0.55	82	8	515	1,293	3,186
1989	11	0.45	53	30	576	2,268	4,436
1990	14	0.36	56	24	481	3,132	5,409
1991	3	0.00	43	14	365	3,653	5,891
1992	15	0.60	49	29	405	4,947	7,229
1993	18	0.28	45	26	465	4,394	6,919
1994	17	0.35	59	36	682	5,009	8,062
1995	23	0.35	84	57	585	5,289	8,859
1996	51	0.29	74	55	432	6,584	10,267
1997	41	0.49	103	60	474	7,287	11,492
1998	28	0.89	56	42	388	4,946	10,067
1999	76	0.50	272	123	714	7,977	9,126
2000	173	0.27	241	107	727	5,277	9,065
2001	332	0.11	244	154	649	4,081	7,786
Total	874	0.58	1,726	881	8,367	68,134	120,406

**Table 2: Comparing Loans to Japanese Borrowers with Loans to Borrowers in Benchmark Countries.**

Year	Median Moody's rating of borrower		Median loan amount (millions U.S. \$)		Median maturity (years)		Proportion of loans that are secured		Median loan premium (b.p. over LIBOR)	
	Japanese	French, German, U.K, U.S.	Japanese	French, German, U.K, U.S.	Japanese	French, German, U.K, U.S.	Japanese	French, German, U.K, U.S.	Japanese	French, German, U.K, U.S.
1980	Baa2	Baa1	106	45	8	5	0.40	0.03	--	63
1981	A2	Baa1	10	75	5	5	0.00	0.02	50	55
1982	A3	A2	30	65	3	7	0.33	0.01	88	55
1983	Baa1	Baa1	24	70	4	5	0.00	0.06	50	59
1984	Baa2	Baa1	40	75	4	5	0.10	0.05	80	55
1985	Baa1	A3	25	90	2	5	0.00	0.03	125	34
1986	A3	A2	46	91	4	5	0.00	0.02	100	34
1987	Baa1	Baa1	90	100	4	5	0.00	0.07	75	36
1988	Baa3	Baa2	100	100	4	5	0.18	0.08	50	75
1989	A3	Baa3	74	46	1	5	0.00	0.09	25	150
1990	A2	Baa3	150	31	5	4	0.00	0.10	38	125
1991	A2	Baa2	500	24	9	3	0.33	0.26	--	143
1992	Baa3	Baa2	74	25	12	4	0.00	0.35	40	150
1993	Baa3	Baa3	100	40	12	3	0.11	0.38	50	150
1994	Baa3	Baa3	39	45	10	4	0.06	0.35	138	150
1995	Baa3	Baa3	59	52	7	5	0.00	0.34	48	150
1996	A3	Ba1	17	50	6	4	0.06	0.37	113	165
1997	Baa1	Ba3	33	60	6	4	0.15	0.36	150	161
1998	Baa1	B1	120	63	1	5	0.21	0.38	70	175
1999	Baa2	Ba3	139	73	1	4	0.18	0.39	88	200
2000	Baa1	Ba2	113	100	1	3	0.06	0.30	70	200
2001	Baa2	Baa3	47	100	1	3	0.02	0.27	72	200
Average (1980-2001)	Baa1	Baa3	88.01	64.53	4.94	4.44	0.10	0.20	75.84	117.45
Average (1990-2001)	Baa2	Ba1	115.94	55.24	5.92	3.81	0.10	0.32	79.48	164.06
Available Observations (% of total)	283 (32.3)	16,984 (21.5)	870 (99.5)	78,433 (99.1)	813 (93.0)	62,782 (79.4)	874 (100.0)	79,108 (100.0)	170 (19.5)	44,127 (55.8)

**Table 3: Comparing Loans to Japanese Borrowers from Domestic and Foreign Banks**

		Moody's rating of borrower	Loan amount (millions U.S. \$)	Loan maturity (years)	Loan Premium (b.p. over LIBOR)	Proportion secured	Proportion loan commitments
<b>Sample: 1980-2001</b>							
Domestic Lenders							
	Median	Baa2	52.58	1.00	48.75	0.02	0.53
	Mean	Baa2	295.03	3.30	63.16		
	Std Dev	3.0 notches	834.80	3.48	45.91		
	Number of observations	141	594	557	32		
Foreign Lenders							
	Median	Baa1	92.05	3.00	75.00	0.16	0.39
	Mean	Baa1	213.84	3.53	94.41		
	Std Dev	2.4 notches	401.16	3.42	69.26		
	Number of observations	140	275	255	137		
<b>Sample: 1990-2001</b>							
Domestic Lenders							
	Median	Baa2	51.03	1.00	47.50	0.02	0.53
	Mean	Baa2	295.20	3.30	67.65		
	Std Dev	3.0 notches	843.14	3.50	48.64		
	Number of observations	138	577	544	25		
Foreign Lenders							
	Median	Baa1	114.22	2.00	75.00	0.18	0.44
	Mean	Baa1	254.64	3.38	98.14		
	Std Dev	2.5 notches	444.45	3.54	72.44		
	Number of observations	101	213	203	117		

**Table 4: Loan Premium Regressions: Distinguishing Domestic and Foreign Bank Loans to Japanese Borrowers**

Variable	Sample			
	Observations with pricing info	Observations with pricing info	Observations with pricing and ratings info	Observations with pricing and ratings info
Intercept	72.886*** (12.365)	93.125*** (15.436)	108.905*** (20.555)	36.325 (28.163)
Foreign Bank = 1	26.773** (12.978)	24.470* (13.360)	1.423 (15.487)	3.172 (14.474)
Loan Amount (millions US\$)	-0.015** (0.007)	-0.013* (0.007)	-0.022*** (0.007)	-0.010 (0.007)
Moody's Rating (1 = Aaa, 21 = C)				3.775 (43.236)
Maturity (years)	-20.904 (25.159)	-4.424 (23.283)	-11.462 (46.058)	8.755*** (2.485)
Secured = 1		41.638** (17.541)	31.719 (31.875)	24.640 (29.840)
Nonfinancial = 1		14.558 (10.767)	27.201** (11.802)	21.142* (11.157)
Loan commitment = 1		-47.966*** (10.390)	-52.932*** (11.000)	-49.094*** (10.332)
Time Dummies	No	Yes	Yes	Yes
Adj. R-squared	0.044	0.212	0.247	0.343
Number of Observations	169	169	88	88

**Table 5: Proportion of Loanware Observations that are Loan Commitments, 1980-2001**

Year	Japan	France	Germany	U.K.	U.S.
1980	0.00	0.13	0.00	0.09	0.46
1981	0.00	0.23	0.00	0.17	0.32
1982	0.11	0.05	0.00	0.20	0.40
1983	0.27	0.03	0.00	0.22	0.51
1984	0.20	0.19	0.11	0.22	0.40
1985	0.33	0.27	0.00	0.31	0.49
1986	0.10	0.58	0.16	0.35	0.59
1987	0.33	0.62	0.17	0.50	0.56
1988	0.36	0.77	0.00	0.52	0.57
1989	0.55	0.45	0.17	0.38	0.53
1990	0.21	0.23	0.25	0.39	0.56
1991	0.33	0.12	0.43	0.35	0.59
1992	0.07	0.31	0.14	0.33	0.57
1993	0.06	0.42	0.19	0.40	0.68
1994	0.00	0.20	0.17	0.38	0.70
1995	0.13	0.50	0.40	0.42	0.64
1996	0.04	0.43	0.35	0.42	0.64
1997	0.02	0.39	0.47	0.42	0.64
1998	0.50	0.29	0.45	0.45	0.62
1999	0.59	0.39	0.32	0.44	0.59
2000	0.70	0.33	0.40	0.41	0.62
2001	0.63	0.32	0.29	0.40	0.67
Annual Average	0.25	0.33	0.20	0.35	0.56