Are Firm- and Country-Specific Governance Substitutes? Evidence from Financial Contracts in Emerging Markets

Bill Francis, Iftekhar Hasan*, Liang Song

Lally School of Management and Technology of Rensselaer Polytechnic Institute

110 8th Street - Pittsburgh Building, Troy, NY, U.S.A., 12180

* Please address correspondence to Iftekhar Hasan (hasan@rpi.edu) Lally School of Management and Technology of Rensselaer Polytechnic Institute, 110 8th Street - Pittsburgh Building, Troy, NY, U.S.A., 12180, Phone: (518) 276 2525.

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Abstract

We examine how borrowers' corporate governance influence bank loan syndicate structure and contracting terms after controlling for country-level governance. Using data on firm-level corporate governance rankings across several emerging markets, evidence confirms that lenders create smaller and more concentrated loan syndicates to facilitate monitoring and low cost re-contracting in the event of default in response to borrower's weaker corporate governance. Borrowers with better corporate governance obtain more favorable bank loan contracting terms, such as larger amounts, longer maturity, lower interest rate spread, and less collateral requirements. Evidence also reveals that firm-level corporate governance provisions matter more to determine bank loan contracting process in counties with weaker country-level corporate governance such as legal systems. This suggests that firm-specific corporate governance and legal environment are substitutes in writing and enforcing financial contracts. Our findings are robust, irrespective of types of regression methods and specifications.

Keywords: Creditor rights, bank loan, corporate governance, emerging market

JEL Classification Numbers: G20, G34, G38, G31, G30.

I. Introduction

Corporate governance deals with the ways in which providers of finance ensure themselves to get a return on their investments (Shleifer and Vishny, 1997).[1] An extensive theoretical literature (See e.g., Williamson, 1988, Bolton and Scharfstein, 1996, Diamond, 2004) argues that optimal debt policy critically depends on corporate governance. Empirical evidence reveals that country-level governance status such as creditor protection and legal environment (or judicial norms) matters in writing and enforcing financial contracts (See e.g., Qian and Strahan, 2007, Bae and Goyal, 2008, and Esty and Megginson, 2003). However, it is still an open question as to the role of firm-level corporate governance in financial contracting in cross-country settings.[2] Further, it is not obvious what relative importance is portrayed by firm- and country-specific governance factors (or whether they are substitutes or compliments) in determining financial contracts. Such questions are more relevant after the passage of Sarbanes-Oxley (SOX) Act of 2002. While this Act significantly strengthens country-level governance in the U.S., a substantial number of firms with relatively strong firm-specific corporate governance chose to delist from the U.S. markets and opted to list on foreign exchanges.[3,4] This implies that country-level investor protection may not be preferred, at least by some firms, and in some circumstances it may even weaken firm-level corporate governance.[5]

In quest for better understanding of these issues, this paper investigates the influence of firm-level corporate governance provisions on financial contracting after controlling for the

[1] See Shleifer and Vishny (1997) and John and Senbet (1998) for a survey about corporate governance.
[2] There are several U.S evidences about the effect of firm-specific corporate governance on financial contracting (See e.g., Chava et al., 2008, Francis et al., 2008, Roberts and Yuan, 2006 and Sufi, 2007)
[3] The number of companies deregistering after the enactment of SOX jumped from 67 in 2002 (and 43 in 2001) to 198 in 2003 (Leuz, 2008).
[4] Some foreign U.S. cross-listed companies have expressed their intention to delist due to the requirements of Sarbanes-Oxley (WSJ, Sept.17, 2004) and to list in exchanges of other countries, e.g. London and Luxemburg, instead. (WSJ, Apr 17, 2006).
[5] For example, DeFond and Francis (2005) argue that several provisions in SOX weaken firms' corporate governance mechanisms.

country-level governance in cross-country settings. In effect, this reveals whether the relationship between borrowers' corporate governance and bank loan contracts vary across countries with different country-level governance. In the process, the paper also reflects on the possible substitutability between borrowers' corporate governance and country-level governance. We focus on bank syndicated loan market because it provides an important and unique empirical setting to examine the impact of corporate governance on financial contracting from an incomplete contracting perspective. First, bank loans are a major source of corporate funding and small changes in loan rates significantly influence firms' cost of capital.[6] Thus, it is economically important to test the question whether corporate governance and legal environment are substitutes in determining the setting of bank loan contracts. Second, bank loan contracts are complex contracts that depend not only on interest rates, maturity, collateral, and ownership, but also on a number of heterogeneous covenants (Qian and Strahan, 2007). While we cannot examine every aspect of such contracts, our multidimensional approach however allows us obtain more insight about the relative role of firm's corporate governance and legal environment, a key country-level governance variable, on financial contracts.[7] Third, as inside lenders and delegated monitors, banks have access to proprietary information and can provide effective monitoring (Diamond, 1984 and Fama, 1985). Therefore, customized bank loan contracts are more informative than equities and public bonds and can more comprehensively and precisely reflect firms' corporate governance situations and legal environments in borrowers' countries. Finally, we focus on the firms in emerging economies due to their wide variations in firm-level corporate governance standards that are not fully determined by country characteristics. For example, Doidge (2007) shows that 39% of the variance in emerging market firm governance

[6] Bank loan financing dominate corporate funding market compared to equity and public debt financing (Houston and James, 1996, Chava et al. 2008 and Graham et al., 2008).
[7] For example, Esty and Megginson (2003), Esty (2004), and Sufi (2007) focus only on loan ownership.

ratings like Credit Lyonnais Securities Asia (CLSA) ratings can be explained by country-level dummy variables.[8] In contrast, more than 70% of the variance in corporate governance rating of developed market firms such as S&P scores and FTSE ISS index can be explained by legal environments.

Using firm-level corporate governance rankings across 14 emerging markets, the paper attempts to determine the loan syndicate size (number of banks involved in a single loan), loan amount, loan maturity, loan interest rate spread, and the secured status of a loan. While the firm-level corporate governance index, followed by country-level governance factors, macroeconomic dynamics, firm and loan characteristics are considered as relevant independent variables, a substantial focus is given on the interaction terms between firm-level corporate governance and country-level governance proxies.

The results support the view that both firm-level corporate governance provisions and country-level creditor protections do matter in areas of writing and enforcing financial contracts and that borrower's corporate governance and the legal environment of respective countries are substitutes in determining bank loan contracting. Several broad conclusions can be drawn from the findings. First, the lenders create smaller loan syndicates to facilitate monitoring and low cost re-contracting in response to borrowers' poor corporate governance. Because the existing literature (See e.g., Esty and Megginson, 2003; Qian and Strahan, 2007) shows that lenders create larger loan syndicates when the borrower's country has higher legal risk in order to diversify the default risk and make strategic default more costly, our results suggest that lenders do not consider the risks due to poor firm-level corporate governance in the same way as those due to poor country-level creditor protection. Second, the evidence reveals that well-governed

[8] Credit Lyonnais Securities Asia is a private investment research organization, who issued corporate governance rating in a report entitled "Saints and sinners: Who's got religion", April 2001.

firms obtain loans with more favorable contracting terms, e.g., larger amounts, longer maturity, lower spread, and less probability to be secured. These results suggest that banks do value borrower's corporate governance while writing bank loan contracts. Corporate governance enhances loan availability as lenders are more willing to provide credit on favorable terms. Finally, the results show that firm-level corporate governance provisions matter more to determine loan contracts in counties with weaker legal systems. Because the results are based on the interaction term treating governance and legal environment as symmetric variables, an alternative interpretation is that a good legal environment matters more for firms with weak governance. This suggests that corporate governance and legal environment are substitutes in writing and enforcing bank loan contracts.

This research contributes to the literature in important ways. This is the first empirical attempt to link firm-level governance standards with financial contracting, in cross-country settings and thus complements the existing papers in the literature that focus solely on the bank loan contracting and country-level governance.[9,10,11] Additionally, our paper show the first empirical evidence that firm-level and country-level governance are substitutes in determining financial contracts.[12]

The paper proceeds as follows. Section II describes related literature and develops hypotheses. Section III describes the CLSA corporate governance survey and summarizes our

[9] This result is consistent with the findings in U.S. market. For example, Francis et al., (2008), Chava et al., (2008), Roberts and Yuan, (2006) and Sufi, (2007) find the strong effects of agency problem and information asymmetry on bank loan contracting.

[10] Black (2001) and Black et al. (2006) reveal that corporate governance of Russian companies is strongly related to implied value ratios. Love and Rachinsky (2007) show that there is a significant relationship between governance and bank performance in Russia and Ukraine. Klapper and Love (2004) find that better corporate governance is highly correlated with better operating performance.

[11] For example, Qian and Strahan (2007) and Bae and Goyal (2008) examine the syndicated loan market and show that strong creditor protection is associated with more favorable bank loan contracting terms. Esty and Megginson (2003) investigate project loan market, and argue that in countries with weak creditor rights and legal enforcement, lenders create larger and more diffuse syndicates to deter strategic defaults.

[12] Klapper and Love (2004) find that both firm-level and country-level governance are crucial to firm performance.

firm- and country-level data. Section IV reports the methodology and results. Section V concludes. Appendix A contains explanations and sources of all the variables that we use in the paper.

II. Related Literature and Hypothesis Development

Banks are the most important credit suppliers and outside monitors for firms in most economies around the world (Demirguc-Kunt and Levine, 2001, Love and Fisman, 2003 and Love et al., 2007), especially in emerging markets due to their immature capital markets and weak laws or institutions. As discussed in the introduction, the common theme in the existing literature on syndicated bank lending at the international context, is that creditor protection (Qian and Strahan, 2007), and judicial efficiency (Bae and Goyal, 2008) are key to lending decisions, lending structure, and pricing. Similar themes are observed in project finance loans (Esty and Megginson, 2003).

Virtually all of this research has only focused on the relation between country legal environment and bank loans. However, "many provisions in country-level investor protection laws may not be binding" (Klapper and Love, 2004). Firms can change their corporate charters and bylaws to either opt-out or adopt additional provisions not provided by their legal code (Easterbrook and Fischel, 1991). In the bank syndicated loan market, which is a market dominated by large multinational banks serving large borrowers, many of these loans include a "choice of law" clause. Under this term, the laws in the borrower's country can be superseded by that in the U.S. or the U.K. (Qian and Strahan, 2007). Therefore, it is likely that firms within the same country will offer varying degrees of protection to their creditors and banks will write varying loan contracts, accordingly.

Differences in firm-level governance standards are crucial in affecting firms' contracting environment because they can reduce firms' credit risk by disciplining managers' behavior and decreasing agency cost (Francis et al., 2008). Stricter governance mechanisms can also reduce the information asymmetry between borrowers and lenders by establishing an effective and efficient information disclosure mechanism (Sufi, 2007). Because default risk and information risk are important components in bank loan contracting (Bhoraj and Sengupta, 2003), and corporate governance can effectively lower those risks, banks should value firm-level corporate governance in creating lending syndicate structure and writing loan contracting terms.

A. Corporate governance and loan syndicate size

The existing literature has established that there is a negative relationship between country-level legal indices and bank loan syndicate size (Esty and Megginson, 2003; Qian and Strahan, 2007). They suggest that more lenders involved in a single loan can diversify banks' loan portfolios by spreading the credit risk among the participating banks. Moreover, it is more costly for borrowers to voluntarily or strategically default if lenders create a larger lending syndicate. In Chowdhry's (1991) model, banks can threaten to withhold future lending if there is a possibility that the borrowers will default strategically. Thus, as syndicate size increases, borrowers will face the threat that a greater number of lenders will avoid providing credit in the future. This threat is more credible for emerging market firms because of their high dependence on external finance to fund their capital expenditures. If firm-level governance standards have the same effect on bank loan syndicate structure as country legal environment, differences in firm-level corporate governance will be negatively associated with bank loan syndicate size.

However, the credit risk brought by poor firm-level corporate governance is more uncertain compared to those by legal risk because it is not easy for lenders to detect it, ex ante. In contrast, it is easier for lenders to understand legal risk in a specific country. For example, in 2000 when a bank wanted to make a loan to Enron, it was easy for them to know there is little legal risk because the U.S. had the highest creditor protection in the world. At the same time, however, it was hard to discover that Enron had a very high credit risk due to its poor corporate governance at that time. Moreover, firm-level corporate governance is a more direct measure of the risk related to misappropriation of cash flow by managers than legal environment. Monitoring is more important when borrowers have poor corporate governance.

The theoretical loan syndicate literature, e.g., Bolton and Scharfstein (1996), and Gertner and Scharfstrin (1991), argue that smaller groups of banks are effective in the renegotiation and collective decision-making processes when borrowers have a high likelihood of financial distress. They also argue that smaller syndicates can reduce free-riding problems in banks' monitoring process. Consistent with this argument, Lee and Mullineaux (2004) show empirically that lending syndicates are smaller and more concentrated when borrowers' credit risk is relatively high in the US. Good corporate governance can decrease firms' credit risk by disciplining managers' misconduct and by establishing an effective and efficient information disclosure mechanism. Thus, lenders create smaller loan syndicates to facilitate low cost re-contracting in the event of default and monitoring.

To summarize, there are both benefits and costs for lenders to create either large or small lending syndicates. Lenders will adjust syndicate structure in response to the level of borrower's corporate governance. In this paper, we examine which effect will be dominant when lenders

respond to the credit risk due to borrowers' poor corporate governance given a certain legal risk in emerging markets.

Hypothesis 1A: All else equal, lenders create smaller loan syndicates when the borrower has weaker corporate governance.

Hypothesis 1B: All else equal, lenders create larger loan syndicates when the borrower has weaker corporate governance.

B. Corporate governance and loan amount

Stiglitz and Weiss (1981) argue that as credit risk increases, lenders reduce loan amounts to some borrowers instead of increasing loan interest rates. Jappelli and Pagano (1993) argue that alleviated information asymmetry would increase the willingness of lenders to provide credit. Empirically, Bae and Goyal (2008) find that banks respond to country-level poor enforceability of contracts by providing less credit. Dennis and Mullineaux (2000) show that if firms are not able to disclose enough information, banks will refuse to lend. Because establishing good corporate governance can decrease firms' credit risk and opaqueness, we conjecture that banks will provide less credit to borrowers with poor corporate governance.

Hypothesis 2: All else equal, lenders reduce loan amounts when the borrower has weaker corporate governance.

C. Corporate governance and loan maturity

Debt maturity is an effective contracting tool, and that lenders prefer to issue short-term debt because short-term debt allows lenders to review their lending decisions more frequently (Diamond, 2004). Contracting problems between debt and equity holders make managers have an incentive to undertake more risky projects and/or to under invest in low risk but positive NPV projects (Dennis et al., 2000). Diamond's (1991) theory shows that debt maturity is a nonmonotonic function of risk ratings. Low and high risk firms use short-term debt since low

risk firms are able to roll over their debt and high risk firms may be refused long-term debt by banks. Intermediate risk firms use long-term debt since these firms avoid short-term debt to minimize refinancing risk. Firms in our sample are all from emerging markets, therefore, they might be riskier compared to those in the developed countries. Thus, we expect our results to follow Diamond's (1991) argument for intermediate to high risk firms: borrowers with low firm-level corporate governance are perceived to be very risky and are limited primarily to short-term loans. The hypothesis to be tested is as below:

Hypothesis 3: All else equal, lenders give loans with shorter maturity when the borrower has weaker corporate governance.

D. Corporate governance and loan interest rate spread

Loan interest spreads also respond to the variation in borrower's corporate governance. Freixas and Rochet (1997) argue that default risk is the major lending risk faced by banks, and is the most important determinant of loan pricing. In addition, Barry and Brown (1984), and Easley and O'Hara (2004) suggest that information disclosure lowers information risk and reduces the cost of capital. As a result, we expect that well-governed firms will have a lower loan spread because corporate governance can effectively decrease default risk and information risk.

Hypothesis 4: All else equal, lenders increase loan interest rate spread when the borrower has weaker corporate governance.

E. Corporate governance and loan secured status

Collateral requirements are common provisions in loan contracts. The existing research explains that information asymmetry (Bester, 1985; Chan and Kanatas, 1985), and/or agency (Boot et al., 1991) problems between borrowers and lenders, lead to the use of collateral arrangements. Berger and Udell (1990) and Jimenez et al. (2006) find that lenders are more

likely to secure their loans with collateral when borrowers are riskier. Lenders can better control borrower risk if they know they will be able to seize collateralized assets in default (Qian and Strahan, 2007). Thus, we hypothesize that lenders use more collateral when borrowers have higher risk due to their poor corporate governance.

Hypothesis 5: All else equal, lenders are more likely to require collateral to secure loans when the borrower has weaker corporate governance.

F. Relative importance of corporate governance and legal environment

The final hypothesis is whether firm-specific governance related provision matters more or less in countries with weak legal enforcement in bank loan contracting. Klapper and Love (2004) argue that one possibility is that in countries with weak law enforcement, firm-level governance standards could be less effective than in countries with good enforcement since these corporate governances are not enforceable. Bergman and Nicolaievsky (2007) argue that firms in a country with poor financial development have less incentive to adopt good corporate governance because that firm will obtain less funding from local funding source and hence will benefit less from any governance related reduction in the cost of capital. Thus, corporate governance is a complement of legal environment.

On the other hand, financial globalization can increase firm-level incentives for good governance because firms with good corporate governance may have access to foreign funding. This should reduce the importance of the country determinants of cost of capital (Doidge et al., 2007). Creditors may reward more to firms, which establishes good corporate governance, in counties with weak legal systems. This suggests that corporate governance can in some sense substitute for legal environment.

That firm-level governance is more valuable in countries with weak legal environment can be caused by another reason, that establishing good governance mechanisms can reduce more agency costs in countries where investor protection is low. This argument is based on that controlling shareholders have more incentives to expropriate from other investors in countries with weaker legal environments (Doidge et al., 2004) and agency costs are greater in countries with weaker rule of law (Nenova, 2003). Thus firm-level governance standards are more valuable in countries with weaker legal systems. In this paper, we try to test whether borrowers' corporate governance and legal environment are substitutes or complements in determining financial contracts in bank syndicated loan market. The hypotheses are formalized as below:

Hypothesis 6A: Borrowers' corporate governance and legal environment are substitutes in determining bank loan contracting.

Hypothesis 6B: Borrowers' corporate governance and legal environment are complements in determining bank loan contracting.

There is no doubt that lenders could also use other means such as putting more covenants in response to borrower's poor corporate governance. Because of data limitation in emerging markets, we leave this for future research.

III. Data

A. Sample

Our key variable, firm-level corporate governance data is from CLSA, a corporate governance rating report, which includes corporate governance rankings on 495 companies in 25 countries. The governance information was collected in late 2000. The CLSA corporate governance questionnaire includes 57 qualitative, binary (yes/no) questions, designed to avoid subjectivity.

We use three country-level legal efficacy measures to capture the effectiveness of a country's legal system. To cover the existence of creditor protection laws, we include Creditor Rights (La Porta et al., 1998), which is the sum of dummy variables identifying no automatic stay on assets, secured creditors being paid first, restrictions for going into reorganization, and management not staying in reorganization. To cover the effectiveness of their implementation, we include Judicial Efficiency, which is an index constructed by the International Country Risk Guide (2000). To cover the overall legal environment, we include Legality, which is an aggregate index of the strength of the legal system and institutional environment constructed as a weighted average of five components: Judicial Efficiency, Rule of Law, Corruption, Risk of Expropriation, and Risk of Contract Repudiation constructed by (Berkowitz et al., 2003). We also include Log (GDP Per Capita) to capture economic development, and GDP Growth to control business cycle. To control overall country default risk, we use the most recent Institutional Investor country credit rating prior to loan origination. Esty and Megginson (2003) argue that these ratings are forward-looking estimates of sovereign risk. In our robustness tests, we also include the ratio of total domestic bank credit to GDP into our regressions to control country financial development, and legal origin to control for omitted variables.

To get bank loan data, we further hand-merged the firm-level governance standards with *Dealscan* database by firm name. To get enough observations, we begin our sample with loans originated in 2000 and include loans originated through 2005. Another motivation to cover longer time periods is to a certain extent, to avoid reverse causality problem.[13] The reason is that our firm-level corporate governance data is from the year 2000 and we can safely argue that our firm-level governance standards is not determined by firms' ex post borrowing behavior.

[13] Roberts and Yuan (2006) argue that a feedback mechanism from bank loan terms on corporate governance is less likely since loan contract terms are well defined ex ante.

Specifically, it is possible that firms faked their corporate governance in 2000 to get better bank loan contracting terms in the same year. However, it is hard to believe that firms did the same thing in 2000 to get a better deal in 2005. To do so, we implicitly assume corporate governance doesn't change a lot over time or that bank lending decisions will consider firms' corporate governance situation of several years ago.

Dealscan provides data on which banks are lending to which firms each year, and to observe various terms of the loans at origination, including the price of the bank borrowing, loan spread, which is measured as the *Dealscan* data item all-in spread drawn (AIS drawn),[14] whether the loan is secured, the maturity of the loan, the number of lenders involved, whether the lender is an arranging bank or agent bank, as well as the names of the borrower and lender(s). Loans in our sample are all senior ones, except for some of them for which we do not have enough information to identify. Very few loans in our sample have a non-missing value of firm rating, so we do not control it in our regression.

We exclude bank borrowers from our sample because of their different borrowing behaviors, compared to industrial firms, firms in Eastern Europe, China, because of unavailable legal indices, and firms in countries with less than two firms. Our sample reduced to 697 loans in 139 firms in the following counties: Brazil, Chile, Hong Kong, India, Indonesia, Korea (South), Malaysia, Pakistan, Philippine, Singapore, South Africa, Taiwan, Thailand, and Turkey.

In order to include firm-level accounting data, we further hand-matched our sample data with the *Worldscope* database, based on the firm name. To make sure the financial data reflect borrower's situation before loan contracting, and that it is in the information set of the lenders, we use the financial data one year earlier than the year the loan was originated. Only half of our

[14] AIS drawn is the amount the borrower pays in basis points over LIBOR or LIBOR equivalent for each dollar drawn. This measure adds to the borrowing spread any annual fees paid to the bank group.

sample observations have matched accounting information in *Worldscope*. *Worldscope* includes balance sheet and income statement information for large, public traded firms across a wide range of countries. We use these financial data to construct measures of firm size (log of the total asset), leverage (total debt divided by assets.), profitability (net income divided by assets), and tangibility (PP&E divided by assets).

B. Summary Statistics

Having described the data and defined the key variables, we now present summary statistics. The distribution of our firm-level corporate governance across countries is shown in Table I, Panel A. As shown, our sample is not equally distributed all over the world, most firms are in Asia, and a few are located in Latin America and Africa. In our sample, borrowers are not concentrated in a few countries, and there is no evidence that loans in a few outlier countries drive our results. Overall, mean corporate governance is 53.35, and ranges from a country average of 25.82 in Pakistan to 64.63 in South Africa. There is also great variation within countries; for example, the corporate governance ranking of firms in Malaysia varies from 23.25 to 80.92. These summary statistics highlight the firm-level variations in corporate governance even within countries. These results suggest that firms still have some flexibility to increase their corporate governance even if their country has higher legal risk.

Summary statistics and sample distributions for country-level indices are shown in Table I, Panel B. In the whole sample, average GDP Growth is 4.27 percent, which is quite high. This is consistent with the fact that emerging economies are developing at a very fast speed, and probably need a lot of external financing. There is a very high correlation among Creditor Rights, Judicial Efficiency, and Legality. However, the variation of the variable Creditor Rights is very

small compared to Judicial Efficiency and Legality, which will cause the regression to have a less statistical detecting power to find the relationship between Creditor Rights and bank loan contracting terms.

Insert Table I about here.

From Table II, the average lender number of a single loan in the full sample is 6.33, and the standard deviation is 6.80, reflecting the significant variation in loan syndicate size across loans. There is also a big variation in loan maturity, the sample average is 58.45 months, and the standard deviation is 38.78 months, with the lowest average of 2 months in India and the highest in Singapore. The country-average loan size is $153 million; in our sample, reflecting loans are all big loans and our results will reflect the effects of firm-level corporate governance differences on financial contracting between large banks and large borrowers. This will influence the generality of our results. However, Qian and Strahan (2007) argue that individual country-level studies, instead of cross-country comparisons, would offer a better way to understand financial contracting for small and private firms since those small and private firms are more likely to be influenced by social and cultural relationships that are difficult to observe and capture in international context (Petersen and Rajan, 1994).

Insert Table II about here.

IV. Methodology and Results

The summary statistics presented in the previous section show significant differences in loan and borrower characteristics across countries. We next begin a more formal investigation, and use regression analysis to examine the effect of firm-level governance standards on the bank loan contracting. Because our sample is relatively small, when we control firm characteristics, we report each regression results with and without controlling firm characteristics. Klapper and

Love (2004) argue that two Latin American counties in our sample (Brazil and Chile), are different from the rest of the sample because in 2000 they both enacted new laws, offering greater protection to investors. Thus, we include a dummy variable for firms located in Latin America. We also control loan characteristics other than the dependent variable, loan type dummy variable, and year effect in the regressions. To control macroeconomic factors' effect, we include measure of economic development (Log (GDP Per Capita)), business cycle (GDP Growth), and sovereign risk (Log (Sovereign Rating)) into the regressions.

To capture unobserved heterogeneity on the industry level, we included industry dummies. To preserve the degrees of freedom in our small sample, we used one-digit SIC code as industry dummy since many industries will have only one firm in them when we use two-digit the SIC code. We do not include either country-level or firm-level fixed effects in our regression since there is no time variation in the key firm-level corporate governance variables and legal indices, and because we have one loan per firm in most cases. Thus, inclusion of either firm-level or country-level fixed effects would make it impossible to identify how the firm-level corporate governance indices and the interactions between firm-specific governance mechanisms and country-level laws governing investor protection affect loan terms.

A. Bank Loan Syndicate Structure

We first test the relationship between the borrower's corporate governance and loan syndicate size and how this relationship varies in countries with different country-level governance. In the regression, each observation represents a single loan. In columns 1, 2, and 3 of Table III, we use OLS regressions, and the dependent variable is the natural logarithm of the number of lenders in a single loan. In the other columns of Table III, we use Poisson and Tobit

regressions, respectively, to test the same specification as the first three columns. The dependent variable is the number of lenders in a single loan.

To test firm-level corporate governance effect, we add our key variable governance index to the regressions. The always significant positive coefficients of governance show that lenders create larger loan syndicates when borrowers have stricter corporate governance. The results suggest that lenders try to reduce the loan size to facilitate monitoring and low cost re-contracting in response to borrower's poor corporate governance. We also include an interaction term between firm-level corporate governance and country-level indices. The negative coefficients of the interaction term mean that the firm-specific governance provision matters more in countries with weak legal enforcement.

Considering the following example, suppose that in the country with lowest value of legality index, the borrower's corporate governance changes from the maximum value to the minimum value of our sample, with all else equal. Lenders on average reduce the loan syndicate size by about 3 banks. In contrast, in the country with median value of legality index, the borrower's corporate governance changes from the maximum value to the minimum value of our sample, with all else equal. Lenders on average reduce the loan syndicate size by about 1 bank. These results are economically significant compared to the sample mean value of bank loan syndicate size (6.33 banks)

Insert Table III about here.

To control firm characteristics' effect on the loan syndicate size, we include measure of firm size (log (Total Assets)), firm leverage (Debt to Total Assets), firm tangibility (PP&E to Total Assets), and firm profitability (Net Income to Total Assets) into the regressions, which are shown in Table IV. Our sample is reduced from 697 to 341 observations. Compared to Table III,

our results, when we control Judicial Efficiency and Legality, do not qualitatively change. We only get marginal significant results when we use Creditor Rights to measure legal risk. The reason might be that small variation of the variable Creditor Rights decreases our regressions' statistical detecting power. This problem is even worse in our smaller sample. Esty and Megginson (2003) argue that Creditor Rights is a problematic measure in some countries. This result also suggests that enforcement of laws is more important than existence of laws to determine bank loan contracting, which is consistent with Bae and Goyal (2008).

Insert Table IV about here.

In unreported results, we find that lenders respond to the borrower's weaker corporate governance by including fewer arranging banks and agent banks. Arranging banks are leading banks in the lending syndicate, and play a more important role as monitors compared to providing banks. Agent banks take a certain responsibility in the lending syndicate such as keeping collateral. These results suggest that lenders try to avoid a free-riding problem, and facilitate the monitoring process. We also find that lenders include fewer foreign banks in the lending syndicate in response to the borrower's poor corporate governance. The reason is that it is more difficult for foreign banks to monitor borrowers because of distance and culture issues. This result is consistent with Mian (2006), who argues that foreign lenders are less able to build a long relationship with the borrowers, and hence, they are more likely to resort to formal legal procedures to resolve defaulted loans than are domestic lenders. Overall, we show that the variation in borrower's corporate governance matters a great deal on how the loans are structured.

B. Bank Loan Contracting Terms

A bank loan is a very complex contract that depends on not only interest rates, maturity, collateral, and ownership, but also a host of complex and heterogeneous covenants (Qian and Strahan, 2007). We cannot consider every aspect of such contracts since some of the variables in emerging markets are not available. In this paper, we only focus on loan size, loan maturity, loan interest rate spread, and the secured status of the loan.

As shown in Table V, lenders increase loan amounts when borrowers have superior corporate governance and this relationship is stronger in countries with higher legal risk. When we control firm characteristics, this result does not change qualitatively. In the country with lowest value of legality index, suppose that the borrower's corporate governance changes from the maximum value to the minimum value of our sample, with all else equal. Lenders on average reduce loan amount by about $6.68 million. In contrast, in the country with median value of legality index, suppose that the borrower's corporate governance changes from the maximum value to the minimum value of our sample, with all else equal. Lenders on average reduce the loan syndicate size by about 1 bank, reduce loan amount by about $1.39 million. This is comparable to the result that there is a $ 57 million loan amount increase if a borrower moves from a country in the sample with the weakest protection of property rights, to a country with the strongest protection of property rights, as reported by Bae and Goyal (2008).

Insert Table V about here.

In Table VI, the results show that lenders shorten loan maturity in response to borrower's poor corporate governance mechanism, even controlling borrower characteristics. Comparing extreme cases, in the country with lowest value of legality index, a loan to the firm with the lowest corporate governance mechanism would have a maturity that is four months shorter than a

loan to the firm with the highest corporate governance, all else held equal. In contrast, in the country with median value of legality index, if the borrower's corporate governance changes from the maximum value to the minimum value of our sample, all else held equal; a loan to the firm with the lowest corporate governance would have a maturity that is three months shorter than a loan to the firm with the highest corporate governance.

When the borrower has poor corporate governance, smaller loan maturities suggest that lenders shorten loan maturity to review their lending decisions more frequently and restrict flexibility of borrowers to expropriate banks (Diamond, 1993). In the existing literature, Bae and Goval (2008) show that the average loan maturity will increase by 2.5 years in moving from a country with the weakest protection of property rights to the strongest protection of property rights. Thus, the effect of borrower's corporate governance on loan maturity is relatively small, although it is still economically significant. This result is consistent with Qian and Strahan's (2007) argument that banks' loan maturity is especially sensitive to the legal environment.

Insert Table VI about here.

As shown in Tables VII and VIII, when we control Judicial Efficiency and Legality, the results imply that well-governed firms receive the loans at a lower spread, and with less probability to be secured. In the country with lowest value of legality index, suppose that the borrower's corporate governance changes from the maximum value to the minimum value of our sample, with all else equal; lenders on average decrease loan spread by 5.8 basis point, and increase the probability to request the collateral by 6 percent. In contrast, in the country with median value of legality index, suppose that the borrower's corporate governance changes from the maximum value to the minimum value of our sample, with all else equal; lenders on average

decrease loan spread by 1.2 basis point, and increase the probability to request the collateral by 2 percent.

These results are comparable to the result that the average loan spread will decline by 67 basis points in moving from a country with the weakest protection of property rights to the strongest protection of property rights (Bae and Goyal, 2008). These results further suggest that borrower's corporate governance has substantial micro-level effects on their cost of loan finance. The higher loan spreads on the borrower with poor corporate governance suggest that lenders require additional compensation when there is greater credit risk due to borrower's poor corporate governance. Due to the same issues discussed above, the problematic measure of creditor rights and the marginal important role of the existence of laws, we only obtain marginal significant results when we control creditor rights. However, the sign of the coefficients are consistent with those we expected. Our results still hold when we control for firm characteristics.

Insert Table VII about here.

Insert Table VIII about here.

Taken together, the results from Tables III, IV, VI, VII and VIII demonstrate that firm-level governance standards have a significant impact on loan ownership as well as on the price and nonprice terms of loan contracts. In the presence of weak firm-level governance standards, creditors are more likely to create smaller loan syndicate, reduce loan amounts, lend on a shorter-term basis, impose reduced collateral requirement, and charge higher rates. Further, firm-specific and country-level governance are substitutes in determining bank loan contracting.

Several borrower characteristic variables have the predicted signs. Loan syndicate size increases with borrower's profitability. Larger companies and companies with more tangible

assets receive the loans with larger amounts, while highly levered firms borrow smaller amounts. Both loan spread and secured status are inversely related to borrower's profitability.

As we mentioned before, firm-level differences in corporate governance have relatively small effect on bank loan contracting, compared to country-level creditor protection. Thus, our results do not support the argument that firm-level governance standards are the dominant determinant in bank loan contracting. Legal infrastructure is still the most important factor in the bank loan contracting process. Moreover, compared to the existence of the creditor protection laws, enforcement of these laws is more important to determine bank loan terms. This finding is consistent with Bhattacharya and Daouk (2002, 2005), and Bae and Goyal (2008).

V. Robustness Tests

This section explores whether our results hold when alternative regression specifications are examined. In unreported results, the following alternatives are considered :[15]

1. We exclude all bilateral loans (loans between a single bank and a borrower), to make sure these observations do not bias our result concerning the relationship between loan syndicate size and the borrower's corporate governance. We show the similar result that lenders create smaller loan syndicate when the borrower has weaker corporate governance.

2. Although we estimate regressions that treat the independent variables as exogenous, some of them, particularly the loan characteristics, are likely to be endogenous. To solve this problem, we also estimate a series of simultaneous equation regressions with up to three dependent variables (loan size, loan maturity, and loan amount). The regressions produce similar results in terms of sign, magnitude, and significance of the coefficients, but are not shown in this paper.

[15] Although not reported, these results are available upon request.

We also estimate the regressions with just borrower's corporate governance, macro and legal risk variables, which are most likely to be exogenous. Again the results are similar.

3. The borrower's country financial development might affect the terms of the bank loan. To measure financial development, we include the ratio of total domestic bank credit to GDP into our regressions. Because the WDI database does not provide this variable for Taiwan, our sample is reduced to thirteen countries. The results do not change qualitatively.

4. There are other aspects of legal protection and institutional efficiency besides the variables we have controlled for in our regressions. For example, Stulz and Williamson (2003) find that culture plays an important role to determine creditor protection. Since, La Porter et al. (1998) argue that almost all of these variables are highly correlated with legal origin. We also add legal origin as a control variable to capture the effect of possible omitted variables. We obtain similar results.

VI. Conclusion

It is well established that country-level creditor rights and judicial efficiency affect the design of financial contracts in international context (Bae and Goyal 2008; Esty and Megginson, 2003; Qian and Strahan, 2007). There is also similar effect of firm-level corporate governance on writing financial contracts in the U.S. market (Chava et al., 2008, Francis et al., 2008, and Sufi, 2007). To date, however, there are no studies that examine whether banks value borrowers' corporate governance in cross-country settings and whether legal environment and corporate governance are substitutes or complements in writing and enforcing financial contracts.

This paper investigates the relationships between the differences in firm-level governance mechanisms and the setting of bank loan contracts controlling country-level creditor

protection in emerging economies, and explores how these relationships differ in different legal environments. Using firm-level corporate governance rankings across 14 emerging markets, the paper reports that: (1) lenders create smaller loan syndicates when the borrower has poor corporate governance. The reason is that smaller loan syndicates can facilitate monitoring and low cost re-contracting in the event of default; (2) borrowers with stricter corporate governance standards receive more favorable bank loan contracting terms such as larger amounts, longer maturity, lower interest rate spread, and less probability to be secured; (3) borrowers' corporate governance and legal systems are substitutes in determining bank loan contracting.

We recognize a number of caveats worth highlighting. First, our results do not attempt to imply that firm-level corporate governance is the dominant factor in bank loan contracting. Legal infrastructure is still most important in terms of writing the bank loan contract. Moreover, enforcement of the laws is more important than existence of the laws to determine the bank loan contracting process. This finding is consistent with Bhattacharya and Daouk (2002, 2005), and Bae and Goyal (2008). Firms can only independently improve their own corporate governance to a certain degree to get more favorable bank loan contracting terms. Second, our results reflect how the borrower's corporate governance affect the setting of bank loan contracts for only relatively large firms, particularly, those appearing at the same time in Dealscan, Survey by CLSA, and Worldscope.[16]

Our results also have important policy implications. From the perspective of policy makers, it is important to distinguish between improving firm-level corporate governance, and improving country-level institutional factors. Both views have their advocates. However, it is

[16] Also, our sample is relatively small because of data limitation and more work needs to be done before claiming any strong generalization of our results.

very difficult to reform the legal system in a short time. Firms can improve their own corporate governance, and quickly improve their financing environment. Thus, it is very important to know the role of the borrower's corporate governance on the bank loan contracting process and how this relationship is moderated by the existing legal environment. This will help policy makers to take measures to facilitate the financing markets.

Appendix A. Brief Descriptions of All the Variables and Their Sources

Variables	Description	Sources
Governance	Measuring firm-level corporate governance	CLSA report
Legal Efficacy		
Judicial Efficiency	Measuring the effectiveness of law implementation	International Country Risk Guide (2000)
Creditor Rights	An index aggregating different creditor rights. The index is formed by adding "1" when: (1) the country imposes restrictions, such as creditors' consent or minimum dividends to file for reorganization; (2) secured creditors are able to gain possession of their security once the reorganization petition has been approved (no automatic stay); (3) secured creditors are ranked first in the distribution of the proceeds that result from the disposition of the assets of a bankrupt firm; and (4) the debtor does not retain the administration of its property pending the resolution of the reorganization. The index ranges from zero to four.	LLSV (1998)
Legality	An aggregate index of the strength of the legal system and institutional environment constructed as a weighted average of five components: Judicial Efficiency (identical to our first index), Rule of Law, Corruption, Risk of Expropriation, and Risk of Contract Repudiation	LLSV (1998)
Legal Origin	Identifies the legal origin of the company law or commercial code of each country	LLSV (1998)
Firm Characteristics		
Log (Total Assets)	Measuring firm size	Worldscope
Debt To Total Assets	Measuring firm leverage	Worldscope
Net Income to Total Assets	Measuring firm profitability	Worldscope
PP&E to Total Assets	Measuring firm tangibility	Worldscope
Macroeconomic Factors		
Log (GDP Per Capita)	Measuring a country's overall economic status	Datastream
Percentage change in GDP	Percent change in GDP in two adjacent years, measuring business cycle of a country	Datastream
Log (Country Credit Rating)	Measuring a country's overall credit risk	Institutional Investors
Credit Provided by Banks	Domestic credit provided by banking sector (% of GDP)	WDI
Loan Characteristics		
Log (Loan Maturity)	Natural log of the loan maturity. Maturity is measured in months.	Dealscan
Log (Loan Size)	Natural log of the loan facility amount. Loan amount is measured in millions of dollars.	Dealscan
Log (Number of Lenders)	Natural log of total number of lenders in a single loan.	Dealscan
Log (Number of Arrangers)	Natural log of total number of arranging banks in a single loan.	Dealscan
Log (Number of Agents)	Natural log of total number of agent banks in a single loan.	Dealscan
Log (Number of Foreign Lenders)	Natural log of total number of foreign lenders in a single loan.	Dealscan
Dummy Loan Secured	Equal 1 if the loan is secured, otherwise zero	Dealscan
Log (Loan Price)	Loan price is measured as all-in spread drawn in the Dealscan database. All-in spread drawn is defined as the amount the borrower pays in basis points over LIBOR or LIBOR equivalent for each dollar drawn down.	Dealscan

REFERENCE

Bae, K. and V. K. Goyal (2008). "Creditor Rights, Enforcement, and Bank Loans" *Journal of Finance, (Forthcoming).*

Barry, C. B. and S. J. Brown (1984). "Differential Information and the Small Firm Effect." *Journal of Financial Economics* 13(2): 283-294.

Berger, A. N. and G. F. Udell (1990). "Collateral, loan quality, and bank risk." *Journal of Monetary Economics* 25(1): 21-42.

Bergman, E. and D. Nicolaievsky (2007). "Investor Protection and the Coasian View" *Journal of Financial Economics* 84, 738–771.

Berkowitz, D., K. Pistor, and J. Richard (2003). "Economic Development, Legality, and the Transplant Effect." *European Economic Review* 47(1): 165-195.

Bester, H., (1985). "Screening vs. Rationing in Credit Markets With Imperfect Information." *American Economic Review* 75, 850–855.

Bhattacharya, U., and H. Daouk. (2002). "The World Price of Insider Trading" *Journal of Finance* 57: 75-108

Bhattacharya, U., and H. Daouk. (2005). "When No Law is Better than a Good Law" *Working Paper Indiana University and Cornell University*

Bhojraj, S. and P. Sengupta (2003). "Effect of Corporate Governance on Bond Ratings and Yields: The Role of Institutional Investors and Outside Directors." *Journal of Business* 76(3): 455-476.

Black, B. (2001). "The Corporate Governance Behavior and Market Value of Russian Firms" *Emerging Markets Review* 2(2): 89-108.

Black, B., I. Love and A. Rachinsky (2006). "Corporate Governance Indices and Firms' Market Values: Time Series Evidence from Russia" *Emerging Markets Review*, 7 (4): 361-379.

Bolton, P. and D. S. Scharfstein (1996). "Optimal Debt Structure and the Number of Creditors" *Journal of Political Economy* 104(1): 1-25.

Boot, A, A. V. Thakor, and G. F. Udell, (1991). "Secured Lending and Default Risk: Equilibrium Analysis, Policy Implications and Empirical results." *Economic Journal* 101, 458–472.

Chan, Y. S. and G. Kanatas, (1985). "Asymmetric Valuation and the Role of Collateral in Loan Agreements." *Journal of Money, Credit and Banking* 17, 85–95.

Chava, S., D. Livdan and A. K. Purnanandam, (2008). “Do Shareholder Rights Affect the Cost of Bank Loans?” *Working Paper.*

Chowdhry, B., (1991). “What is Different about International Lending?” *Review of Financial Studies* 4(1): 121-148.

Easley, D. and M. O’Hara (2004). "Information and the Cost of Capital" *Journal of Finance* 59(4): 1553-1583.

Defond, M. L. and J. R. Francis (2005). "Auditing research after Sarbanes-Oxley” *Auditing: A Journal of Practice and Theory* 25: 5-30.

Demirguc-Kunt, A. and R. Levine (2001). "Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets, and Development." *MIT Press, Cambridge, MA.*

Dennis, S. and D. J. Mullineaux (2000). "Syndicated Loans" *Journal of Financial Intermediation* 9: 404-426.

Dennis, S., D. Nandy, and I. Sharpe (2000), “The Determinants of Contract Terms in Bank Revolving Credit Agreements”, *Journal of Financial and Quantitative Analysis*, 35(1): 87-110.

Diamond, D. W. (1984). "Financial Intermediation and Delegated Monitoring." *Review of Economic Studies* 51(3): 393-414.

Diamond, D. W. (1991). "Monitoring and Reputation: The Choice between Bank Loans and Directly Placed Debt" *Journal of Political Economy* 99(4): 689-722.

Diamond, D. W. (1993). “Seniority and Maturity of Debt Contracts” *Journal of Financial Economics* 33, 341-368.

Diamond, D. W. (2004). "Committing to Commit: Short-term Debt When Enforcement is Costly" *AFA Presidential Address, Journal of Finance* 59:1447-1480.

Doidge, C., G. A. Karolyi, and R. M. Stulz (2007). “Why Do Countries Matter So Much For Corporate Governance?” *Journal of Financial Economics* 86(1): 1-39.

Doidge, C., G. A. Karolyi, and R. M. Stulz, (2004). “Why are Foreign Firms Listed in the US worth More” *Journal of Financial Economics* 71(2): 205-238.

Easterbrook, F. H. and D. R. Fischel (1991). "The Economic Structure of Corporate Law." *Harvard University Press, Cambridge, MA.*

Esty, B. C. and W. L. Megginson (2003). "Creditor Rights, Enforcement, and Debt Ownership Structure: Evidence from the Global Syndicated Loan Market" *Journal of Financial and Quantitative Analysis* 38(1): 37-59.

Esty, B. C., (2004). "When Do Foreign Banks Finance Domestic Projects? New Evidence on the Importance of Legal and Financial Systems" *Working Paper, Harvard Business School.*

Fama, E. F. (1985). "What's different about banks?" Journal of Monetary Economics 15(1): 29-39.

Francis, B., I. Hasan, M. Koetter, and Q. Wu (2008). "The Effectiveness of Corporate Boards: Evidence from Bank Loan Contracting" *Working Paper Rensselaer Polytechnic Institute*

Freixas, X. and J. Rochet (1997). "Microeconomics of Banking." *The MIT Press.*

Gertner, R., and D. S. Scharfstein (1991) "A Theory of Workouts and the Effect of Reorganization Law." *Journal of Finance* 46: 1189-1222.

Graham, J. R., S. Li and J. Qiu (2008). "Corporate Misreporting and Bank Loan Contracting." *Journal of Financial Economics* 88(3): 44-61.

Houston, J. and C. James (1996). "Bank Information Monopolies and the Mix of Private and Public Debt Claims." *Journal of Finance* 51(5): 1863-1889.

Klapper, L. F. and I. Love (2004). "Corporate Governance, Investor Protection, and Performance in Emerging Markets." *Journal of Corporate Finance* 10(5): 703-728.

Jappelli, T., and M. Pagano (1993). "Information Sharing in Credit Markets." *Journal of Finance* 48, 1693–1718.

Jimenez, G., V. Salas and J. Saurina (2006). "Determinants of Collateral." *Journal of Financial Economics* 81(2): 255-281.

John, K. and L. W. Senbet (1998), "Corporate Governance and Board Effectiveness" *Journal of Banking and Finance*, 4: 371-403.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. W. Vishny (1998). "Law and Finance" *Journal of Political Economy* 106(6): 1113-1155.

Lee, S. W. and D. J. Mullineaux (2004). "Monitoring, Financial Distress and the Structure of Commercial Lending Syndicates" *Financial Management* 33(3):107-131.

Leuz, C., A. Triantis and T. Y. Wang (2008)." Why Do Firms Go Dark? Causes and Economic Consequences of Voluntary SEC Deregistration" *Journal of Accounting and Economics* 45(2-3): 181-208.

Love, I. and R. Fisman (2003). “Trade Credit, Financial Intermediary Development and Industry Growth” *Journal of Finance* 58(1):353-374.

Love, I., L.A. Preve and V. Sarria-Allende (2007) "Trade Credit and Bank Credit: Evidence from Recent Financial Crises" *Journal of Financial Economics* 83(2): 453-469.

Love, I. and A. Rachinsky (2007)."Corporate Governance, Ownership and Bank Performance in Emerging Markets: Evidence from Russia and Ukraine" *Working Paper.*

Mian, A., (2006). “Distance Constraints: The Limits of Foreign Lending in Poor Economies.” *Journal of Finance* 61: 1465-1505.

Nenova, T., (2003). “The Value of Corporate Voting Rights and Control: A Cross-country Analysis.” *Journal of Financial Economics* 68(3): 325-351

Petersen, M. A. and R. G. Rajan (1994). "The Benefits of Lending Relationships: Evidence from Small Business Data" *Journal of Finance* 49(1): 3-38.

Qian, J. U. N. and P. E. Strahan (2007). "How Laws and Institutions Shape Financial Contracts: The Case of Bank Loans." *Journal of Finance* 62(6): 2803-2834.

Roberts, G. S. and L. E. Yuan (2006). "Does Institutional Ownership Affect the Cost of Bank Borrowing?" *Working Paper.*

Shleifer, A. and R. W. Vishny (1997). "A Survey of Corporate Governance." *Journal of Finance* 52(2): 737-783.

Stiglitz, J. E., and A. Weiss (1981). "Credit Rationing in Markets with Imperfect Information", *American Economic Review* 71: 393-410.

Stulz, R., and R. Williamson (2003). "Culture, Openness and Finance", *Journal of Financial Economics* 70: 261-300.

Sufi, A. (2007). “Information Asymmetry and Financing Arrangements: Evidence from Syndicated Loans” *Journal of Finance* 62(2): 629 – 668.

Williamson, O. E. (1988). “Corporate Finance and Corporate Governance” *Journal of Finance* 43(3): 567-591.

Table I

Summary Statistics for Firm-Level and Country-Level Variables

This table presents summary statistics of firm-level corporate governance and country-level indices in the full sample and by borrower country. Panel A reports number of firms, mean, median, standard deviation, minimum and maximum of firm-level corporate governance; Panel B reports country-level indices including Creditor Rights, Judicial Efficiency, Legality, average value from 2000 to 2005 of GDP Growth, Log (GDP Per Capita) and Log (Sovereign Rating). The details of definitions and sources of all the variables are reported in Appendix A.

Summary statistics

Panel A: Firm-level governance indices

	No. of firms	Mean	Median	Standard deviation	Minimum	Maximum
All Sample	139	53.35	55.22	13.82	19.40	85.97
BRAZIL	13	59.48	60.72	6.98	45.07	68.22
CHILE	5	62.91	60.53	3.82	60.40	69.25
HONG KONG	15	53.45	57.18	13.78	30.90	80.02
INDIA	16	52.21	49.30	8.80	40.43	74.67
INDONESIA	2	30.87	25.75	7.24	25.75	35.98
KOREA (SOUTH)	10	41.60	39.68	6.13	35.10	55.82
MALAYSIA	18	53.43	60.00	13.86	23.25	80.92
PAKISTAN	2	25.82	25.82	1.44	24.80	26.83
PHILIPPINES	10	39.30	48.65	14.73	19.40	64.35
SINGAPORE	18	64.43	64.48	11.54	45.37	85.97
SOUTH AFRICA	5	64.63	54.72	8.14	54.72	75.97
TAIWAN	14	54.56	55.22	9.51	44.32	74.52
THAILAND	8	53.00	60.50	17.76	28.33	79.02
TURKEY	3	45.14	53.71	15.15	28.02	56.77

Panel B: Country-level indices

	Creditor Rights	Judicial Efficiency	Legality	GDP Growth (Percentage)	Log (GDP Per Capita)	Log (Sovereign Rating)
All Sample	2.86	6.30	13.93	4.27	8.18	4.05
BRAZIL	1	5.75	14.09	3.23	8.16	3.72
CHILE	2	7.25	14.70	4.43	8.55	4.16
HONG KONG	4	10.00	19.41	3.72	10.11	4.20
INDIA	4	8.00	12.80	6.22	6.32	3.87
INDONESIA	4	2.50	9.16	4.08	6.87	3.27
KOREA (SOUTH)	3	6.00	14.23	5.13	9.43	4.14
MALAYSIA	4	9.00	16.67	5.17	8.39	4.06
PAKISTAN	4	5.00	8.98	4.53	6.32	2.99
PHILIPPINES	0	4.75	8.51	3.95	6.87	3.80
SINGAPORE	4	10.00	19.53	4.67	10.05	4.44
SOUTH AFRICA	3	6.00	14.51	2.90	8.14	3.92
TAIWAN	2	6.75	17.62	4.13	9.55	4.32
THAILAND	3	3.25	12.94	4.50	7.69	3.90
TURKEY	2	4.00	11.84	3.05	8.08	3.65

Table II

Summary Statistics for Loan Contract Terms

This table presents summary statistics of loan contracts terms for sample firms. Number of observations, mean, standard deviation, minimum and maximum of debt contract terms including number of lenders, loan maturity and loan size are reported for loans in the full sample and by borrower country. The sample includes loans originated between 2000 and 2005. We drop loans to banks. The details of definitions and sources of all the variables are reported in Appendix A.

		Number of lenders				Loan Maturity (month)				Loan Size ($millions)			
	No. of loans	Mean	Standard deviation	Min	Max	Mean	Standard deviation	Min	Max	Mean	Standard deviation	Min	Max
All Sample	697	6.33	6.80	1.00	33.00	58.45	38.78	2.00	360.00	153.00	240.00	0.04	2500.00
BRAZIL	49	9.92	5.89	1.00	26.00	35.24	20.64	6.00	84.00	174.00	181.00	23.00	1200.00
CHILE	19	11.42	7.60	1.00	31.00	64.42	37.51	30.00	144.00	329.00	297.00	40.00	1390.00
HONG KONG	84	7.51	9.08	1.00	33.00	61.12	30.86	3.00	120.00	285.00	397.00	6.42	1620.00
INDIA	78	6.73	6.66	1.00	32.00	59.92	56.92	2.00	301.00	129.00	150.00	0.14	750.00
INDONESIA	8	5.50	5.13	1.00	16.00	34.13	12.31	21.00	60.00	106.00	47.60	50.00	184.00
KOREA (SOUTH)	58	5.05	4.51	1.00	17.00	40.41	14.39	12.00	84.00	141.00	96.70	7.72	393.00
MALAYSIA	83	3.60	3.56	1.00	16.00	64.70	44.10	3.00	240.00	128.00	157.00	1.05	987.00
PAKISTAN	2	6.00	7.07	1.00	11.00	33.00	38.18	6.00	60.00	16.30	12.30	7.62	25.00
PHILIPPINES	71	5.18	6.21	1.00	27.00	62.46	27.12	9.00	180.00	78.10	221.00	0.98	1850.00
SINGAPORE	64	2.86	2.82	1.00	12.00	53.19	48.77	6.00	360.00	169.00	282.00	5.52	1560.00
SOUTH AFRICA	19	16.68	10.30	1.00	28.00	59.37	29.25	12.00	144.00	261.00	555.00	15.00	2500.00
TAIWAN	89	8.18	7.54	1.00	31.00	56.07	18.73	12.00	120.00	106.00	109.00	5.94	692.00
THAILAND	65	3.63	3.42	1.00	19.00	87.78	43.29	6.00	240.00	98.50	134.00	0.04	877.00
TURKEY	8	9.00	5.86	1.00	19.00	33.00	38.88	12.00	120.00	126.00	75.80	30.00	250.00

Table III

OLS, Possion and Tobit Regression Relating Log (Number of Lenders) to Governance, Loan, and Country Characteristics

We include, but do not report coefficients on loan characteristics such as log (loan amount), log (loan maturity), year indicators, industry indicators (one-digit SIC), indicators on loan type and an indicator for firms located in Latin America. The sample includes loans originated between 2000 and 2005. We drop loans to banks. The details of definitions and sources of all the variables are reported in Appendix A. In computing standard errors, we cluster by borrower country. The table reports coefficients, with t-statistics (z-statistics) in parentheses. Significance at the 10%, 5% and 1% levels is indicated by *, **, and ***, respectively.

	Dependent Variable								
	Log (Number of Lenders)			Number of Lenders			Number of Lenders		
Governance	0.020***	0.037***	0.017***	0.023***	0.041***	0.014***	0.192***	0.323***	0.133**
	(3.21)	(3.66)	(2.66)	(5.86)	(6.87)	(4.16)	(3.17)	(3.54)	(2.58)
Legal Efficacy									
Judicial Efficiency	0.043			0.097***			0.786		
	(0.80)			(3.14)			(1.62)		
Legality		0.054			0.072***			0.742**	
		(1.48)			(3.25)			(2.15)	
Creditor Rights			0.037			0.036			0.420
			(0.37)			(0.68)			(0.50)
Governance * Judicial Efficiency	-0.002**			-0.003***			-0.022***		
	(-2.43)			(-5.77)			(-2.72)		
Governance * Legality		-0.002***			-0.003***			-0.019***	
		(-3.17)			(-6.62)			(-3.21)	
Governance * Creditor Rights			-0.004*			-0.004***			-0.028*
			(-1.70)			(-3.56)			(-1.79)
Macroeconomic Factors									
Log (GDP Per Capita)	0.041	0.108	0.046	0.072**	0.152***	0.074**	0.632	0.919*	0.597
	(0.70)	(1.47)	(0.72)	(2.49)	(4.30)	(2.55)	(1.40)	(1.67)	(1.30)
GDP Growth	-0.018	-0.040	-0.007	-0.027*	-0.042***	-0.014	-0.290	-0.460**	-0.183
	(-0.64)	(-1.55)	(-0.26)	(-1.92)	(-3.13)	(-0.99)	(-1.23)	(-2.04)	(-0.78)
Log (Sovereign Rating)	0.101	0.003	-0.186	0.044	-0.014	-0.189	-1.312	-2.299	-2.591
	(0.32)	(0.01)	(-0.59)	(0.27)	(-0.08)	(-1.28)	(-0.52)	(-0.91)	(-1.09)
Control For									
Loan Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loan Type	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Estimation technique		OLS			POISSON			TOBIT	
Observations	697	697	697	697	697	697	697	697	697
R-squared	0.493	0.492	0.500	0.3597	0.3594	0.3640	0.1194	0.1190	0.1207
Likelihood ratio				-2066.44	-2067.37	-2052.48	-1746.57	-1747.31	-1743.87
Prob. > chi2				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table IV

OLS, Possion and Tobit Regression Relating Log (Number of Lenders) to Governance, Loan, Country Characteristics and Firm Characteristics

We include, but do not report coefficients on loan characteristics such as log (loan amount), log (loan maturity), macroeconomic factors such as log (GDP per capita), GDP growth and log (sovereign rating), year indicators, industry indicators (one-digit SIC), indicators on loan type and an indicator for firms located in Latin America. The sample includes loans originated between 2000 and 2005. We drop loans to banks. The details of definitions and sources of all the variables are reported in Appendix In computing standard errors, we cluster by borrower country. The table reports coefficients, with t-statistics (z-statistics) in parentheses. Significance at the 10%, 5% and 1% levels is indicated by *, **, and ***, respectively.

	Dependent Variable								
	Log (Number of Lenders)			Number of Lenders			Number of Lenders		
Governance	0.040**	0.042**	0.010	0.047***	0.059***	0.015***	0.424***	0.441**	0.098
	(2.17)	(1.99)	(0.95)	(4.94)	(4.82)	(2.60)	(2.85)	(2.53)	(1.18)
Legal Efficacy									
Judicial Efficiency	0.129			0.200***			1.862*		
	(1.00)			(2.92)			(-2.97)		
Legality		0.172*			0.249***			1.833**	
		(1.90)			(4.66)			(2.36)	
Creditor Rights			0.030			0.136			0.699
			(0.17)			(1.36)			(0.46)
Governance * Judicial Efficiency	-0.005**			-0.006***			-0.057***		
	(-2.27)			(-5.11)			(0.36)		
Governance * Legality		-0.003**			-0.004***			-0.028**	
		(-2.05)			(-4.88)			(-2.58)	
Governance * Creditor Rights			-0.004			-0.006***			-0.044*
			(-1.32)			(-3.35)			(-1.66)
Firm Characteristics									
Log (Total Assets)	-0.016	0.045	-0.011	0.004	0.053***	0.002	-0.110	0.354	-0.112
	(-0.50)	(1.15)	(-0.37)	(0.31)	(3.14)	(0.13)	(-0.48)	(1.23)	(-0.54)
Debt To Total Assets	-0.489	-0.709**	-0.321	-0.486***	-0.605***	-0.412***	-5.615**	-6.916***	-4.408
	(-1.61)	(-2.15)	(-0.96)	(-3.17)	(-3.92)	(-2.62)	(-2.18)	(-2.64)	(-1.64)
Net Income To Total Assets	0.197	0.256**	0.213*	0.248***	0.316***	0.228***	2.321**	2.800***	2.210**
	(1.57)	(2.16)	(1.76)	(4.62)	(5.94)	(4.45)	(2.45)	(2.94)	(2.39)
PP&E To Total Assets	0.340	0.165	0.255	0.381***	0.208	0.304**	3.821	2.390	3.421
	(1.28)	(0.61)	(1.03)	(2.73)	(1.51)	(2.28)	(1.65)	(1.02)	(1.55)
Control For									
Macroeconomic Factors	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loan Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loan Type	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Estimation technique		OLS			POISSON			TOBIT	
Observations	341	341	341	341	341	341	341	341	341
R-squared	0.513	0.500	0.513	0.3615	0.3558	0.3607	0.1227	0.1186	0.1221
Likelihood ratio				-1021.27	-1030.33	-1022.64	-887.36	-891.49	-888.03
Prob. > chi2				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table V

OLS Regression Relating Log (Loan Amount) to Governance, Loan, Country Characteristics and Firm Characteristics

We include, but do not report coefficients on loan characteristics such as log (number of lenders), log (loan maturity), macroeconomic factors such as log (GDP per capita), GDP growth and log (sovereign rating), year indicators, industry indicators (one-digit SIC), indicators on loan type and an indicator for firms located in Latin America. The sample includes loans originated between 2000 and 2005. We drop loans to banks. The details of definitions and sources of all the variables are reported in Appendix A. In computing standard errors, we cluster by borrower country. The table reports coefficients, with t-statistics in parentheses. Significance at the 10%, 5% and 1% levels is indicated by *, **, and ***, respectively.

	Dependent Variable=Log (Loan Amount)					
	(1)	(2)	(3)	(4)	(5)	(6)
Governance	0.026***	0.046***	0.014*	0.033**	0.063***	0.047***
	(2.91)	(3.38)	(1.77)	(2.16)	(3.06)	(4.12)
Legal Efficacy						
Judicial Efficiency	0.202***			0.245**		
	(2.82)			(1.99)		
Legality		0.199***			0.336***	
		(4.04)			(4.69)	
Creditor Rights			0.376***			1.025***
			(3.11)			(6.12)
Governance * Judicial Efficiency	-0.003***			-0.004**		
	(-2.63)			(-2.27)		
Governance * Legality		-0.003***			-0.004***	
		(-3.43)			(-3.35)	
Governance * Creditor Rights			-0.005*			-0.017***
			(-1.88)			(-4.82)
Firm Characteristics						
Log (Total Assets)	-	-	-	3.073***	3.081***	3.195***
	-	-	-	(5.10)	(5.17)	(5.47)
Debt To Total Assets	-	-	-	-0.424*	-0.490*	-0.520**
	-	-	-	(-1.70)	(-1.95)	(3.53)
Net Income To Total Assets	-	-	-	0.203	0.281	0.699**
	-	-	-	(0.56)	(0.85)	(-2.55)
PP&E To Total Assets	-	-	-	0.209**	0.170**	0.258***
	-	-	-	(2.49)	(2.11)	(2.12)
Control For						
Macroeconomic Factors	Yes	Yes	Yes	Yes	Yes	Yes
Loan Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Loan Type	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	697	697	697	341	341	341
R-squared	0.448	0.457	0.462	0.543	0.567	0.591

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Table VI

OLS Regression Relating Log (Loan Maturity) to Governance, Loan, Country Characteristics and Firm Characteristics

We include, but do not report coefficients on loan characteristics such as log (number of lenders), log (loan amount), macroeconomic factors such as log (GDP per capita), GDP growth and log (sovereign rating), year indicators, industry indicators (one-digit SIC), indicators on loan type and an indicator for firms located in Latin America. The sample includes loans originated between 2000 and 2005. We drop loans to banks. The details of definitions and sources of all the variables are reported in Appendix A. In computing standard errors, we cluster by borrower country. The table reports coefficients, with t-statistics in parentheses. Significance at the 10%, 5% and 1% levels is indicated by *, **, and ***, respectively.

	Dependent Variable=Log (Loan Maturity)					
	(1)	(2)	(3)	(4)	(5)	(6)
Governance	0.011**	0.019**	0.009**	0.010***	0.016***	0.007***
	(2.05)	(2.45)	(2.12)	(2.69)	(3.71)	(2.62)
Legal Efficacy						
Judicial Efficiency	0.023			0.058**		
	(0.51)			(2.20)		
Legality		0.060**			0.046***	
		(2.06)			(2.65)	
Creditor Rights			0.109			0.104**
			(1.49)			(2.59)
Governance * Judicial Efficiency	-0.001*			-0.001***		
	(-1.66)			(-2.61)		
Governance * Legality		-0.001**			-0.001***	
		(-2.35)			(-3.64)	
Governance * Creditor Rights			-0.003*			-0.002**
			(-1.79)			(-2.52)
Firm Characteristics						
Log (Total Assets)	-	-	-	0.031	0.034*	0.033*
	-	-	-	(1.64)	(1.85)	(1.73)
Debt To Total Assets	-	-	-	-0.000	-0.000	-0.000
	-	-	-	(-0.69)	(-0.84)	(-0.27)
Net Income To Total Assets	-	-	-	0.006	0.008	0.009
	-	-	-	(0.72)	(1.10)	(1.16)
PP&E To Total Assets	-	-	-	-0.000	-0.000	-0.001
	-	-	-	(-0.47)	(-0.44)	(-0.89)
Control For						
Macroeconomic Factors	Yes	Yes	Yes	Yes	Yes	Yes
Loan Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Loan Type	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	697	697	697	341	341	341
R-squared	0.339	0.340	0.336	0.773	0.776	0.772

Table VII

OLS Regression Relating Log (Loan Spread) to Governance, Loan, Country Characteristics and Firm Characteristics

We include, but do not report coefficients on loan characteristics such as log (loan amount), log (number of lenders), log (loan maturity), macroeconomic factors such as log (GDP per capita), GDP growth and log (sovereign rating), year indicators, industry indicators (one-digit SIC), indicators on loan type and an indicator for firms located in Latin America. The sample includes loans originated between 2000 and 2005. We drop loans to banks. The details of definitions and sources of all the variables are reported in Appendix A. In computing standard errors, we cluster by borrower country. The table reports coefficients, with t-statistics in parentheses. Significance at the 10%, 5% and 1% levels is indicated by *, **, and ***, respectively.

	Dependent Variable=Log (Loan Spread)					
	(1)	(2)	(3)	(4)	(5)	(6)
Governance	-0.043*	-0.061*	-0.020	-0.169***	-0.232**	-0.044**
	(-1.80)	(-1.82)	(-1.11)	(-4.46)	(-2.67)	(-2.66)
Legal Efficacy						
Judicial Efficiency	-0.562***			-1.558***		
	(-3.18)			(-5.69)		
Legality		-0.378***			-0.981***	
		(-2.96)			(-2.93)	
Creditor Rights			-0.556			-1.340***
			(-1.62)			(-3.46)
Governance * Judicial Efficiency	0.007**			0.025***		
	(2.01)			(4.78)		
Governance * Legality		0.004*			0.016***	
		(1.94)			(2.76)	
Governance * Creditor Rights			0.007			0.029***
			(1.15)			(3.35)
Firm Characteristics						
Log (Total Assets)	-	-	-	-0.060*	-0.052	-0.003
	-	-	-	(-1.88)	(-1.19)	(-0.07)
Debt To Total Assets	-	-	-	-0.237	-0.283	-0.376
	-	-	-	(-0.46)	(-0.46)	(-0.67)
Net Income To Total Assets	-	-	-	-0.378***	-0.283***	-0.092
	-	-	-	(-4.85)	(-3.21)	(-0.86)
PP&E To Total Assets	-	-	-	0.009	-0.386	-1.497***
	-	-	-	(0.02)	(-1.05)	(-3.81)
Control For						
Macroeconomic Factors	Yes	Yes	Yes	Yes	Yes	Yes
Loan Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Loan Type	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	92	92	92	63	63	63
R-squared	0.847	0.836	0.824	0.961	0.944	0.947

Table VIII

Logistic Regression Relating the Secured Status of a Loan to Governance, Loan, Country Characteristics and Firm Characteristics

We include, but do not report coefficients on loan characteristics such as log (loan amount),log (number of lenders), log (loan maturity), macroeconomic factors such as log (GDP per capita), GDP growth and log (sovereign rating), year indicators, industry indicators (one-digit SIC), indicators on loan type and an indicator for firms located in Latin America. The sample includes loans originated between 2000 and 2005. We drop loans to banks. The details of definitions and sources of all the variables are reported in Appendix A. The table reports marginal probabilities, with z-statistics in parentheses. In computing standard errors, we cluster by borrower country. Significance at the 10%, 5% and 1% levels is indicated by *, **, and ***, respectively.

	Dependent Variable=Secured Indicator (One if Loan is Secured)					
	(1)	(2)	(3)	(4)	(5)	(6)
Governance	-0.0008**	-0.0017***	-0.0003	-0.0002**	-0.0010**	-0.0001
	(-2.56)	(-2.60)	(-0.60)	(-2.41)	(-2.32)	(-1.09)
Legal Efficacy						
Judicial Efficiency	-0.0057*			-0.0032***		
	(-1.82)			(-2.84)		
Legality		-0.0024			-0.0015**	
		(-0.93)			(-2.56)	
Creditor Rights			-0.0011			-0.0008*
			(-0.16)			(-1.88)
Governance * Judicial Efficiency	0.0001**			0.0001***		
	(2.13)			(2.59)		
Governance * Legality		0.0001**			0.0001**	
		(2.29)			(2.24)	
Governance * Creditor Rights			0.0000			0.0000
			(0.11)			(1.42)
Firm Characteristics						
Log (Total Assets)	-	-	-	-0.09**	-0.06	-0.07
	-	-	-	(-2.21)	(-1.47)	(-1.40)
Debt To Total Assets	-	-	-	-0.03	0.02**	0.04
	-	-	-	(-0.48)	(2.30)	(1.24)
Net Income To Total Assets	-	-	-	-0.09**	-0.05*	-0.08
	-	-	-	(-2.48)	(-1.68)	(-1.62)
PPE To Total Assets	-	-	-	0.08**	0.02	0.04
	-	-	-	(2.31)	(0.63)	(1.06)
Control For						
Macroeconomic Factors	Yes	Yes	Yes	Yes	Yes	Yes
Loan Characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Loan Type	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	256	256	256	177	177	177
Likelihood ratio	-43.1873	-41.6368	-44.4200	-9.6611	-11.4394	-13.5527
Prob. > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R-squared	0.6692	0.6811	0.6598	0.9037	0.8860	0.8649