

Lender Laws and International Lending

Mehdi Beyhaghi, Rui Dai, Anthony Saunders, John K. Wald*

April 25, 2018

Abstract

Prior research has focused on the impact of creditor rights in a domestic loan context. The separate impact of lender country creditor laws and borrower country creditor laws in the \$7 trillion multinational syndicated loan market has yet to be evaluated. We find that stronger lender creditor rights are associated with a lower cost of borrowing after correcting for borrower country laws. These findings are robust to accounting for the borrower's endogenous choice of lender, for a borrower's foreign assets, and for loan guarantees provided by the borrower's parent company or major shareholders. We also find that stronger lender property rights imply larger and longer maturity loans.

Keywords: Multinational Loans, International Banking, Creditor Rights, Property Rights

JEL Codes: F34, G15, G21

* Beyhaghi and Wald are from The University of Texas-San Antonio. Dai is from Wharton Research Data Services. Saunders is from Stern School at NYU. We thank Tobias Berg, Zhen Cai, Mariassunta Giannetti, Fredrik Eidam, and Sascha Steffen for their helpful suggestions and comments. Address correspondence to: Anthony Saunders, Leonard N. Stern School of Business, New York University, 44 West Fourth Street, Suite 9-91, New York, NY 10012. E-mail asaunder@stern.nyu.edu. Phone: (212) 998-0711.

I. Introduction

Existing research has examined how the legal environment of borrowing firms determines the cost, maturity, and other features of a loan contract (see, for example, Djankov, McLiesh, and Shleifer, 2007; Qian and Strahan, 2007; Bae and Goyal, 2009). The borrowing firm's legal environment is characterized by the extent of creditors' rights under bankruptcy laws and by the degree of the enforceability of contracts in the country of the borrower. We extend this literature by focusing on multinational loans, and examining how the lender's legal environment, rather than just the borrower's, impacts loan characteristics.

The total amount outstanding of multinational loans to nonbank sectors has increased fourfold (Figure 1) from \$1,708 trillion in 1995 to \$7,338 trillion in 2017 according to the Bank of International Settlements. While prior literature has mainly focused on the importance of borrowing firms' domestic legal environment in debt contracting, we find that multinational lenders generally prefer not to have a contract governed by the law of a foreign borrower's jurisdiction and that creditors prefer their own legal forum (Lopucki, 1999; Sherman, 2005, Mellor and Marsh, 2016). The reason is that not only do local courts have a tendency to favor local firms (whether creditor or borrower), but also as Mellor and Marsh (2016) state "lawmakers friendly to the borrower could change the law in a way detrimental to the lender."

Moreover, most multinational loan contracts include a forum selection provision which specifies that in the event of a dispute, borrowing firms' selection of forum will be limited to those agreed upon in the loan contract. Not surprisingly, the lender's home forum is among one of the few options.¹ For example, the following clause is from a loan agreement signed in 2004 between Brasil Telecom S.A., "a corporation duly incorporated and existing under the laws of the Federative Republic of Brazil" having its principal executive offices in the city of Brasília as the borrower and Sumito Mitsui Banking Corporation from Japan as the lead arranger. The lending syndicate members include a group of Japanese and US lenders:

"Submission to jurisdiction: The Borrower hereby irrevocably agrees that each of the Tokyo District Court, the courts of the State of New York and the courts of the United States of America in New York shall have jurisdiction to hear and determine any suit, action or proceedings, and to settle any dispute, which may arise out of or in connection

¹ For a practitioner discussion of which jurisdiction applies, see Sharman (2005) and Mellor and Marsh (2016). We provide some examples of the typical language included in debt contracts in the appendix.

with this Agreement and, for such purpose, irrevocably submits to the jurisdiction of such courts.”

In multinational loan contracts, the “choice of law” provision is frequently used to mitigate costs of potential litigation by preemptively specifying the governing law in the loan contract. Our research finds that over ninety-percent of multinational loan contracts choose either New York Law or English law to govern these contracts. The reason is that New York Law and English law are considered “sophisticated, stable and predictable, which lenders like.” (Mellor and Marsh, 2016). The preference of New York Law or English law as the contract law does not place the lender in a disadvantageous position, especially since the choice of governing law in the contract is accompanied by the forum selection clause, which limits the borrowing firm’s choice of forum for adjudication of contract disputes, but does not put any limitation on lender’s choice of forum. If the borrower fails to provide timely disclosure or if the borrower violates a covenant, the lender can initiate legal proceedings alleging contractual violations in the lender’s forum, notwithstanding the forum selection clause.² Thus, contract laws can provide lenders with a home-court legal advantage. We therefore expect that because the laws of the lender’s jurisdiction affect contract renegotiation or covenant violations, they will have an impact on loan characteristics. Indeed, once a firm files for bankruptcy, the loan’s contractual provisions are superseded by bankruptcy law, and thus the legal environment, in which the bankruptcy proceedings occur.³ If the lender’s legal environment matters primarily because bankruptcy proceedings occur in the lender’s home country, we expect that those laws related to bankruptcy outcomes, i.e., creditor rights laws, are also related to loan pricing and other loan characteristics at time of original loan contracting.

In this paper, we analyze empirically the effects of lenders’ home laws on loan contracts, while controlling for borrowers’ laws, to determine the extent to which the lenders’ legal environment impacts the pricing, maturity and the size of the loans at time of issuance. To our knowledge the impact of lender’s laws in the context of cross-border lending has yet to be

² The forum selection clause restricts the choice of the borrower and not the lender regarding the geographic location in which any lawsuit to adjudicate a dispute between the parties must be brought. The lender generally has the initial choice of forum. Also, the home court will apply the local law (not New York or English law) to determine the enforceability of the forum selection clause.

³ Home court advantage in legal proceedings is often explained by greater familiarity, lower costs, and a potential bias by courts for local firms (see, Thiel, 2000). For a discussion of the optimal structure of international bankruptcy laws, see LoPucki, 1999; Westbrook, 2000; or Tung, 2001.

examined despite the multi-trillion size of the market. Our data is extensive and covers loans between borrowers from 172 countries and lead lenders from 118 countries.

To date, prior literature has shown that effective enforcement of contracts and laws in the borrower's jurisdiction, for within country debt transactions, imply a lower cost of debt for the borrower (Qian and Strahan, 2007; Bae and Goyal, 2009). Initially, we reproduce the results from Qian and Strahan (2007; henceforth QS) and Bae and Goyal (2009; henceforth BG), two of the main studies in this literature, over the same sample period used in their papers (1994–2003) using the same measures of borrower's country legal environment. In replicating their results, we find similar economic and statistical magnitudes for the borrower country's legal environment. We go further in this paper and add measures of the lender's country legal environment as additional explanatory variables to the original models in the context of multinational debt transactions, and find that lender country measures have significant additional effects on loan price and non-price terms. The results are robust when (i) we extend the original sample in QS and BS to 1981–2016, (ii) when we exclude US loans from the sample, (iii) when we exclude non-US dollar loans,⁴ (iv) when we use alternative measures of the legal environment,⁵ and (v) when the country of syndication (book building) is different from the country of the borrowing firm.⁶

However, while our preliminary results strongly suggest that lender's legal environment characteristics matter in the design of multinational loan contracts, we believe that regressing contract characteristics on a set of explanatory variables including lender's characteristics is not sufficient to fully evaluate the questions posed in this study. The reason is that a borrower has a

⁴ For \$US denominated loans it is also observed that lenders indicate the laws of the United States as acceptable governing laws regardless of the location of the borrower or the lender. The bankruptcy system of the United States claim jurisdiction over the assets of a filing borrower wherever located, including assets located in other nations (Lopucki, 1999). Moreover, even if bankruptcy proceedings are in a different country, the US courts may allow creditors to use any US assets under Section 304 of US bankruptcy code. We run tests on a sample of multinational loans including and a sample of multinational loans excluding \$US loans.

⁵ Our creditor rights index is based on the original index used by Djankov, McLiesh, and Shleifer (2007). Data is publicly available on Andrei Shleifer's website. Our results are maintained when we use different time periods, or when we use alternative measures of creditor rights such as World Bank's legal rights index or the Time to Resolve Insolvency index, which measures the duration from the moment of default to the point at which the fate of the defaulted firm's assets is determined, or when we use. The details are provided in the data section.

⁶ Across all multinational loans in our sample, the country of loan syndication is different from the borrowing firm's country for about 10% of the loans. Of this percentage about half of the books are built in the lender's country. While the choice of country of syndication is different from the choice of governing law, to ensure that our results are not affected by this sample, we rerun our tests by excluding loans syndicated in the lender's country, and also separately by excluding loans syndicated in any country other than the borrower's and find similar results. We do not report these results in this paper.

choice on which lender, from which country, and under which jurisdiction to borrow from. That is, a borrower has the choice of lender (subject to the lender's willingness to lend) from a country with a specific legal environment. To investigate what determines a borrower's choice, we explore various aspects of a borrower's decision including (i) the general choice of a particular lender out of all available lenders, by assuming that the borrower had the ability to pick any lender, domestic or foreign, that is active in the borrower's home country in the year that the borrower has borrowed; (ii) the decision in choosing a foreign lender over a domestic lender using all the domestic and multinational actual loans received by the borrower; (iii) the choice of a particular jurisdiction that the lender is from; and (iv) the choice of a particular country that the lender is from.

The last two aspects consider the possibility that the borrower is more concerned about the jurisdiction or the country that the lender is from rather than the specific lender. We find that in choosing a lender, variables such as the lender's reputation, measured as lender's share in the global loan market over the past five years, the lender's share in the borrower's loan market over the past five years, and the lender's prior relationship with the borrower play roles in borrower's choice of a lender. We also find that in choosing a foreign lender, the geographical distance between the borrower and the lender, whether the country of the lender and the country of the borrower share a common border, or whether two countries had a colonial relationship significantly affects the borrower's choice. We also find that the size of a loan and a loan's maturity, as measures of borrower's demand for credit, and borrower's characteristics such as size, leverage, and tangibility are important in the decision to choose a foreign versus domestic lender.

Throughout our analysis we estimate our models using both an OLS framework as well as a two-stage least squares (2SLS) framework, in which the lender's characteristics are endogenously determined and we use instruments for lender's characteristics that we calculate in a first stage regression. Controlling for the endogeneity of the choice of a lender's country we find that effect of the lender's creditor rights is even larger on the loan spread than found with an OLS setup.

Consistent with multinational loan bankruptcy proceedings being held in the lender's jurisdiction affecting outcomes, we find that stronger creditor rights in the lender's own country imply lower spreads on multinational loans, and this result is robust to controlling for borrowing

firm's characteristics, loan characteristics, and borrower country laws. The coefficients on creditor rights in our tests imply while the impact of lender laws on the cost of debt is economically as well as statistically significant, borrower creditor rights continue to matter regardless of the lender's jurisdiction.⁷ We further investigate if laws other than bankruptcy laws also matter. Bae and Goyal (2009) show that the borrower's country's property right's index, which is a general measure of enforceability of contracts, is also priced in domestic loan contracts. To that end we include in our multinational loan tests measures of country property rights laws and other measures of legal environment such as freedom from corruption, political safety and financial safety for both borrowing firm's and lender's countries. We find that borrowing firm's country laws outside bankruptcy, especially property rights have a significant effect on loan contracts. We also find that lender's country's property rights are associated with longer maturities and larger loan amounts.⁸

We further analyze the role of guarantees in loan agreements. The most typical type of guarantee is known as an "internal guarantee", whereby a lender requires the loan to be guaranteed by the borrower's parent firm or a borrower's group member.⁹ For the purpose of our multinational loan contracting study, a loan guarantee could affect our conclusions if the guarantor is incorporated in a different country than the country of the borrower. We hypothesize

⁷ To explain why borrower laws matter more Mellor and Marsh (2016) state "a US lender seeking to enforce a loan agreement against a foreign borrower could do so in one of two ways. Assuming the borrower has submitted to the jurisdiction of New York courts, the lender could file suit in New York against the borrower, obtain a judgment from a New York court, and then seek to have that judgment enforced against the assets of the borrower in the borrower's home country. In the alternative, the lender could seek to enforce the loan agreement directly in the courts of the foreign jurisdiction. In either case, there is reliance on the laws, institutions and legal process in the borrower's home jurisdiction."

⁸ In general, a creditor rights index corresponds to the legal rights that lenders have in reorganization and liquidation procedures, and to the favorability, from the lenders' perspective, of the laws that determine who controls the insolvency process, and who has rights to the property of a bankrupt firm. Property rights on the other hand measures the enforceability of laws in a country. Our property law index is constructed based on the following risk attributes of a country: contract viability/expropriation, profits repatriation, payment delays, corruption, and law and order. More details can be found in Section III.

⁹ Here we mean an explicit guarantee, which is a legally binding commitment of the guarantor to pay an amount to the creditor in case the borrower defaults under its obligations to the creditor. There may also be implicit (soft) guarantees by the borrower's parent company in forms of comfort letters/letters of intent, which is basically a declaration rather than a legally binding commitment whereby the guarantor declares it will refrain from taking actions that would jeopardize its subsidiary's financial stability, or in form of keep-well agreement, which is a declaration by the parent company that it will provide its subsidiary with additional capital to prevent it from defaulting. According to PriceWaterhouseCoopers' 2013 global survey, "Navigating the Complexity," comfort letters/letters of intent and keep-well agreements generally lack legal enforceability, especially in multinational loan agreements (survey available at <https://www.pwc.com/gx/en/tax/transfer-pricing/assets/full-report-2013.pdf>). An explicit guarantee can be in the form of a downstream guarantee, which is issued by a parent firm to lenders for the benefit of a subsidiary firm, or an upstream guarantee, which is issued by a subsidiary firm to lenders of a parent firm, or a cross-guarantee, issued by another firm (or firms) in the group of the borrowing firm.

that a multinational loan is less risky for a lender if the loan has a guarantor in the same country of the lender. To test this hypothesis, we collect guarantor information provided by Dealscan. Dealscan provides the identity of loan guarantors and the country of their incorporation. As expected most guarantees are provided by the borrowing firm's parent company or the borrowing firm's major institutional shareholder. Our results indicate that the existence of a guarantee per se does not decrease loan spreads. This finding is consistent with Berger and Udell (1990) and Santos and Winton (2008), who find that lenders are more likely to require guarantees if they think the firm is riskier.¹⁰ However, we find that a guarantee decreases loan spreads only if the guarantee is provided by a firm that is in a lender's country. The coefficients for lender and borrower laws stay qualitatively the same when we add controls for loan guarantees.

Next, we analyze the role of a borrowing firm's foreign assets being present in the lender's country on the cost of its debt. When the borrower has assets in the lender's jurisdiction, the assets of the borrower can be seized by the lender based on an order from the bankruptcy court in the lender's jurisdiction.¹¹ To that end, we examine whether, after controlling for borrower and lender laws, having assets in the lender's country has an additional effect on the loan spread. We manually match borrowers in our sample with foreign asset data from Wordscope's Geographic Segment Data. Among all the firms matched with WorldScope, 24% have foreign assets and 9% have foreign assets in the lender's jurisdiction. We find that having foreign assets per se does not decrease loan spreads. In fact, we find that if the borrower of a multinational loan has foreign assets in a country other than the lender's, there is an increase in loan spreads. This finding is consistent with an increase in the complexity and difficulty of the lender receiving payment in default and with an increase in the cost of multi-country monitoring. When we add a separate indicator for whether the borrower has assets in the lender country, we find that having assets in the country of the lender decreases spreads. Our findings are generally consistent with Houston, Itzkowitz, and Naranjo (2017) who, using a sample of 6,266 borrowers

¹⁰ The overall effect of guarantees on cost of borrowing is insignificant or mixed because a guarantee provides extra safety for loans that are more risky.

¹¹ In the United States, an "ancillary case" can be commenced to prevent the piecemeal distribution of foreign-owned assets to U.S. lenders where the foreign owner is otherwise already the subject of a foreign insolvency proceeding. An ancillary case is a much milder version of chapter 7 or 11 proceeding. The right to maintain an ancillary case by the foreign country is, however, not automatic. A U.S. bankruptcy court will either dismiss or permit an ancillary case to proceed pursuant to its analysis. For the purpose of our study, we expect that when a borrower has assets in the lender country, the lender jurisdiction becomes more important.

from 35 countries over 1998–2009, show that borrowing firms are likely to approach foreign lead lenders from countries in which the firm has assets located in those countries. The reason is that the borrowing firms expect to obtain better rates from these lead lenders. Additionally, our foreign asset analysis shows that our main results, that lender creditor laws matter, are not due to the sample of borrowers who have foreign assets in their lender’s country. The coefficients for borrower and lender country laws remain qualitatively the same whether or not we control for borrower foreign asset location, thus implying that lender laws matter even when the borrower does not have assets in the lender’s country.

We extend the analysis of borrowing firm’ assets further by focusing on the issue of collateral and by distinguishing between the subset of loans that are secured and the subset of loans that are unsecured. A reading of the practitioner literature that addresses collateral issues in different countries reveals that the degree to which a lender can have claim on secured borrower collateral varies from country to country.¹² For a given country, however, creditor rights are expected to be more important when collateral is pledged by the borrowing firm as the security for the payment of a loan. With an unsecured loan, the borrowing firm has not pledged specific collateral; therefore the degree to which creditor rights matter for such loans is less clear than when a loan is secured against specific assets. Collateral is expected to increase recovery for lenders and decrease any “loss given default,” and subsequently the required spread on the loan. Our results show that consistent with our prediction, lender creditor rights are more important for secured loans. The coefficients for lender laws, in our spread regressions, are significant at the 1% level across all specifications and choice of controls for the subset of the sample with secured loans. Interestingly for the subset of loans that are unsecured, we find that the coefficient for lender laws is insignificant in the model setup that we control for borrower characteristics. The results confirm our prediction that creditor rights matter more for the lender when collateral is specified with the loan contract.

The use of all-in-drawn spread as our measure of borrowing cost is consistent with the prior literature in this area and enables us produce results comparable with QS and BG.

¹² See for example, Deloitte’s Guide to Cross-Border Secured Transactions, available on www.deloitte.com, that includes country-specific information provided by local lawyers from 27 jurisdictions across Europe, South America and South-East Asia. Also, see The International Comparative Legal Guide to: Lending & Secured Finance, available on the website of the Loan Trading and Syndication Association (LSTA) that provides an overview of common issues in lending and secured finance laws and regulations in 42 jurisdictions. Also, see VedderPrice’s The Practical Lender guide on Cross-Border Lending, available on www.vedderprice.com that discusses the issues related to security, by focusing on the laws of Canada, Mexico, and the United States.

However, we recognize that loan spreads may not be a complete measure of the total borrowing cost (Berg, Saunders, and Steffen, 2016; and Berg, Saunders, Steffen, and Streit; 2017). Therefore, in additional tests provided in the Internet Appendix we follow the method proposed by Berg et al. (2016) which highlights the importance of fees in international loan contracts, and we calculate a proxy for the total cost of borrowing (TCB) for loan observations with fee data.¹³ Due the scope of this study with borrowers from 172 countries, we use a modified version of the proxy introduced by Berg et al. (2016). The results incorporating fees into borrowing costs are generally consistent with our main findings, i.e., the results show the importance of lender country's contract jurisdiction on the total cost of borrowing.

By examining the importance of lenders' laws, this study also adds to the law and finance literature, which has examined how different laws are related to various aspects of investments across countries. (see, for instance, La Porta, Lopez-de-Silanes, Shleifer, and Vishney, 1997, 1998; Demirguc-Kunt and Maksimovic, 1998). The importance of creditor rights laws on credit availability is discussed by Djankov, McLiesh, and Shleifer (2007). Qian and Strahan (2007) provide an analysis of creditor rights in the borrowing firm's country on loan spreads, maturities, and loan amounts. Esty and Megginson (2003) consider the effects of creditor rights and legal enforcement on lending syndicate size and concentration. Bae and Goyal (2009) show the importance of property rights laws in determining loan spreads and other terms. All these studies focus on laws in the borrowing firm's jurisdiction.

A more recent literature has addressed other determinants of cross-border loan characteristics. For instance, Giannetti and Yafeh (2012) show that greater cultural distance between lenders and borrowers is associated with higher loan spreads and smaller loan sizes. Brown (2016) considers the effect of the similarity of accounting systems in borrower and lender countries on lending relationships, by focusing on differences in accounting regimes.

The remainder of this paper is structured as follows: Section II details the construction of our data set. Section III explains the country-level measures of contracting environment quality. Section IV outlines our approach to addressing the endogeneity issue relating to borrowers choice of lender. Section V presents our empirical findings, and section VI concludes.

¹³ By design, term loans have 100% drawdowns at initiation while lines of credit drawdown rates are at the discretion of the borrower. Berg et al. (2016) also investigate the roles of cancellation fees (fees paid if the syndicated loan is cancelled before maturity) and line of credit utilization fees (fees paid on the entire drawn amount once a certain usage threshold has been exceeded) in calculating the total cost of borrowing. They find that these fees constitute less than 1% of the total cost of borrowing for the average borrower.

II. Data

We follow previous international loan studies (Qian and Strahan, 2007; Bae and Goyal, 2009) in using Loan Pricing Corporation's Dealscan data on global corporate loan issuance. DealScan primarily covers syndicated loan issuance, that is, loans originated and managed by one bank or a small group of banks (also known as lead lenders, or loan organizers), and funded by a wider group of creditors. According to Gadanecz and Von Kleist (2002) the majority of cross-border loans are issued in the form of syndicated loans.¹⁴

We start with the sample of all corporate loan deals in Dealscan that are initiated between June 15, 1981 and May 24, 2016 (220,732 loans). Dealscan contains loan deals between a borrower and either a syndicate of lenders or a single lender. The majority of loan deals in Dealscan include only one loan facility (tranche), however, there are loan deals that are composed of multiple individual loan facilities that can differ based on type (term loan versus line of credit), size, security, maturity, spread, covenants, and other loan characteristics. Around 27% of loan deals have more than one loan facility (tranche), and for deals with multiple facilities we keep only the largest facility.¹⁵ Next we drop loan observations for which borrower or lender identity or the country identities for borrower or lender are missing or facility-level information for the loan deal is missing (4.3% of the sample), and this leaves us with a sample of 211,231 loans.

In a loan syndicate, the lead lender is the originator of the lending relationship with the borrower and is the primary provider of funds to the borrower. The lead lender is responsible for

¹⁴ By comparing the total amount of actual loan drawdowns and repayments, which is reported in Bank of International Settlement (BIS) country-level consolidated banking statistics, with the outstanding stocks of syndicated loans, Gadanecz and Von Kleist (2002) estimate that about 50% of outstanding cross-border bank loans to Latin America and developing Europe, and 100% of those to Asia and the Africa-Middle East region are in the form of syndicated loans. Dealscan also reports many single-lender loans. While Dealscan covers the majority of cross-border loans, we note that the Dealscan data is biased towards larger and multinational deals, especially in developing countries. Dealscan coverage of domestic deals (where lenders and borrowers are from the same country) in developing countries is likely to be incomplete.

¹⁵ Our goal is to analyze the effect of borrower country and lender country characteristics on the terms of the contract. Because all loan facilities in the same loan deal have the same borrower and lead lenders and share the same deal-level characteristics, we choose one facility per loan deal to avoid populating the sample with observations on multi-facility deals. An alternative procedure would be to aggregate information across facilities at the deal level using the weighted average of the facility amount. However, this method is inaccurate because it potentially averages spread and maturity over different types of facilities, such as term loan and revolving loan facilities.

negotiating with the borrower, designing the contract, and finding other syndicate participants. For loans with only one lender, we identify that lender as the lead. For loans with multiple lenders, we identify the lead lender if Dealscan's lead_lender_credit variable equals 'Yes.' Based on this criterion, 63,781 loans (30% of the sample) have more than one lead lender. For loans classified as having more than one lead, we consider the actual lead to be the lender who is also classified as the agent lender. If there are still multiple lead lenders left, we consider the lender with the largest share in the loan as the lead.¹⁶ This still leaves us with 52,418 loans with more than one lead lender. From this sample, 31,209 loans have lead lenders from more than one country (less than 15% of the total loan sample).¹⁷ In our main analysis we run tests including all loans with multiple lead lenders as well as tests where we exclude these loans.

We define a loan as a multinational loan if the borrower and at least one of the lead lenders are incorporated in different countries.¹⁸ Of the sample of 211,231 loans there are 42,782 multinational (cross-border) loans with unique lead lender countries, 31,209 multinational loans with multiple lead lender countries, and 137,240 domestic loans (where the borrower and all lead lenders domicile are in the same country). Unlike prior studies, we exclude domestic loans from our main analysis as the borrowing firm's and the lender's legal jurisdictions for these loans are the same.¹⁹

To augment the Dealscan data on borrower risk, we match our loan-level data to firm-level data from WorldScope. WorldScope includes balance sheet and income statement information for large publicly traded firms across a wide range of countries. We use these financial data to construct measures of firm size (the log of total assets in US dollars), profitability (EBITDA divided by assets), leverage (total debt divided by assets), asset tangibility (property, plant, and equipment, or PP&E, divided by assets), and market-to-book ratio (total market value of equity plus total debt divided by assets).²⁰

¹⁶ Loan share information is missing for most of the observations in Dealscan.

¹⁷ The majority of these loans (around 69%) have one lead lender from the borrower's country and one or more lead lenders from other countries.

¹⁸ For example a US subsidiary of a German firm is considered a US firm for our analysis. There are cases where a foreign parent provides guarantee for a loan. In robustness tests we consider this possibility.

¹⁹ It should be noted that our results are robust to including domestic loans in the total loan sample.

²⁰ The use of these firm characteristics is standard in the international finance literature and consistent with Qian and Strahan (2007) and Bae and Goyal (2009). We also control for firm's industry (2-digit SIC), year of observation, and country-level macroeconomic characteristics.

Our matching algorithm is similar to the algorithm used by Chava and Roberts (2008), who focus only on matching US public borrowers on Dealscan loans to Compustat. In doing so, we first apply a fuzzy-name matching algorithm to merge Dealscan borrowers with WorldScope companies, and then verify the matched records manually. In addition, we use geographic location information and stock tickers to eliminate the companies that have nearly identical names but that are domiciled or traded in different locations. Our matched sample contains 11,659 Dealscan companies matched with WorldScope records (equivalent to 19,489 loans). Of this number we keep only loans with borrower financial data available for the fiscal year preceding the loan active date and with nonmissing positive asset values (13,813 loans). Table 1 provides a comparison of our WorldScope-matched sample size with previous studies' samples on multinational loans. We provide analyses using both the full sample of multinational loans as well as the smaller subset of loans matched with WorldScope. Of the subset of loans matched with WorldScope, 5,028 loans are multinational loans, and 8,784 are domestic loans. As mentioned earlier we care about the country of borrower incorporation. In the original 211,231 loan sample, there are borrowers from 172 countries and lenders from 118 countries. After matching borrowers with WorldScope, there are borrowers from 92 countries and lenders from 62 countries.

III. Country-level Measures of Loan Contracting Environment

Variation in laws and institutions affects the risk of lenders and the cost of debt for borrowers. As our main country-level factors we consider (i) creditor rights, a measure of the laws that provide legal protection of creditors, and (ii) property rights, a measure of the enforceability of laws. Because the main focus of this paper is to investigate whether the lender country contracting environment matters in addition to the borrower country contracting environment on loan contract terms, we investigate how the existence and quality of these rights in both borrower and lender countries affect loan contracts. We explain how the creditor rights index and the property rights index are constructed for each country below, and we use alternative measures of the countries' legal environments in robustness tests. The creditor rights indices and the property rights indices for both borrower and lender countries are time-varying.

The creditor rights index is based on Djankov, McLiesh, and Shleifer (2007) as a measure of the legal rights of creditors against defaulting borrowers in a given country. This index is

based on four provisions. The first provision is related to the absence of an automatic stay on the assets of the borrower in reorganizations, that is whether secured creditors are able to seize their collateral once a reorganization petition is approved. The second provision is the requirement that creditor consent must be sought when a borrower files for reorganization. The third provision relates to the priority of creditors in the disposition of assets of the bankrupt firm upon filing for reorganization, that is, whether secured creditors are paid first out of the proceeds of liquidating a bankrupt firm. The fourth provision is the removal of borrower management from managing the activities of the firm upon filing for reorganization. In other words, the management of the borrower continues to run the business while in reorganization. The creditor rights index varies from 0 (weak creditor rights) to 4 (strong creditor rights) depending on how many of these provisions exist in a country's bankruptcy code.

The creditor rights index as defined by Djankov et al. (2007) ends in 2003 and we use the 2002 values for the remaining years of our sample. We think this approach is reasonable because there are very small variations in a sample country's creditor rights index over time. Out of 3,350 country-year observations in the work of Djankov et al. (134 countries over a 25 year period from 1978 to 2002) only 28 times did the creditor rights index for a country change from one year to the next (less than 1% of the data provided by Djankov et al.)²¹. In alternative regressions we use only the portion of our loans that are initiated before 2003 and observe that our results are robust to this specification. Also, we use the World Bank's legal rights index as an alternative measure. The legal rights index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending, and this index is available from 2005 to 2016 and ranges from 0 to 10 for 2004-2012 and 0 to 12 for 2013-2016. Since the creditor rights index ranges from 0 to 4, we divide the legal rights index by 2.5 for 2004-2012 and by 3 for 2013-2016, and use these values for the years 2005 to 2016 to create an extended creditor rights index. Since 2004 is not covered by either index, we use the 2003 creditor rights values for this year (the results don't change if we use the 2005 legal rights index instead). Moreover, we also use another alternative measure of creditor rights from Djankov, Hart, McLiesh, Shleifer (2008), which is based on the time to resolve a hypothetical insolvency case. Our results are qualitatively unchanged with these alternative measures.

²¹ Data available on Andre Shleifer's website: <https://scholar.harvard.edu/shleifer/publications?page=3>

Bae and Goyal (2009) argue that the borrowing firm's legal environment such as the enforceability of laws in that country (property rights) also matter. We construct an annual property rights index for 140 countries over 1981–2016 based on three country-level indices (viability, corruption, and law and order) from the International Country Risk Guide database (ICRG). We combine these indices into an additive index of property rights protection. The index is similar to that used by Bae and Goyal.²² The property rights index in this paper varies from 0 (poor property rights) to 24 (strong property rights) which is the sum of each component.²³

In alternative regressions, we use others measures that reflect laws that affect debt outcomes, other than bankruptcy laws, in a country. These measures include a country's overall index of political safety, a composite index made up from the following components: government stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, military in politics, religious tensions, law and order, ethnic tensions, democratic accountability, and bureaucracy quality. We also use a measure of financial safety that is a composite index made from rankings of the following variables: foreign debt as a percentage of GDP, exchange rate stability, net international liquidity as months of import cover,

²² Bae and Goyal (2009) also use ICRG data on corruption, risk of repudiation, and risk of expropriation of private investment. In addition to these risk indices, our property rights index also includes ICRG data on other risk factors important to foreign lenders including payment delays, and law and order.

²³ The components of this index are as follows:

- Viability (Investment Profile in ICRG) is the sum of three subcomponents: Contract Viability/Expropriation, Profits Repatriation, and Payment Delays. Contract viability/expropriation is the risk of unilateral contract modification or cancellation and, at worst, outright expropriation of foreign owned assets. Profits Repatriation is a measure of the extent to which profits can be transferred out of the host country (impediments include exchange controls, excessive bureaucracy, a poor banking system, etc.). Lastly, payment delays measures the risk associated with receiving and exporting payments from the country (impediments include poor liquidity, exchange controls, an inadequate banking system, etc.).
- Corruption is a measure of corruption within the political system that threatens foreign investment by distorting the economic and financial environment, reducing the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability, and introducing inherent instability into the political process. The most common form of corruption met directly by business is financial corruption in the form of demands for special payments and bribes connected with import and export licenses, exchange controls, tax assessments, police protection, or loans. Such corruption can make it difficult to conduct business effectively, and in some cases may force the withdrawal or withholding of an investment. ICRG indicates that its corruption measure is more concerned with actual or potential corruption in the form of excessive patronage, nepotism, job reservations, 'favor-for favors', secret party funding, and suspiciously close ties between politics and business.
- Law and Order: This risk component is composed of two measures. The "law" sub-component assesses the strength and impartiality of the legal system, and the "order" sub-component assesses popular observance of the law. Thus, a country can enjoy a high rating in terms of its judicial system, but a low rating if it suffers from a very high crime rate and the laws are routinely ignored without effective sanction (for example, widespread illegal strikes). Law and order measures factors not captured in the above two indices.

foreign debt service as a percentage of exports of goods and services, current account as a percentage of exports of goods and services. Additionally, we use the corruption index as an alternative measure of property rights as corruption is sometimes considered the most stark measure of contract enforceability. These indices are from by The International Country Risk Guide (ICRG).

IV. Borrower's Choice of a Particular Lender

Finally, the non-random choice of a lender by a borrower can lead to erroneous conclusions regarding the relation between borrower characteristics and loan characteristics due to “selection bias.” The reason is that a borrower might choose lenders, from whom the borrower expects to receive a loan with better terms. Therefore, contract characteristics are not merely based on borrower characteristics, but also based on the lender choice set that the borrower had when the borrower applied for the loan. In our study we are interested in understanding how a lender's legal environment can affect loan contract characteristics. In the context of our study, the mentioned “selection bias,” can affect our results if the borrower purposely choose a lender from a specific jurisdiction, and this choice benefits the borrower more than other choices.

We analyze a borrower's choice from several aspects. These aspects include borrower's choice of a particular lender out of all potential lenders, borrower's choice of foreign versus domestic lenders, borrower's choice of a lender's country, and borrower's choice of a lender's jurisdiction.

We select several variables that we believe impact borrower's choice of lender in the global loan market. Some of these variables are based on studies in the international economics and trade literature.²⁴ Others are based on studies in the literature on international banking and the literature on the syndicated loan market. Table 2 describes our main variables along with their primary sources. In general, we consider two groups of lender related variables. The first group is at the lender level, and the second group is at the lender's country level.

The main variables in the first group include a lender's overall reputation, which is measured as the lender's or lender's group's²⁵ total market share in the global loan market over

²⁴ See for example the website of Andrew K. Rose (<http://faculty.haas.berkeley.edu/arose/RecRes.htm>) that includes a variety of studies and datasets related to international trade and finance.

²⁵ A lender group is the set of lenders that share the same ultimate parent.

the past five years, as well as lender's reputation in the borrower's country by measuring lender's market share of the total market value of loans in the borrower's country over the past five years. We also create another variable, relationship, which is a dummy variable that is assigned a value of one if the lender or a member of the lender's group had a lending relationship with the borrower over the past five years.²⁶ In addition we employ a dummy variable that indicates whether the lender is domestic or foreign relative to the borrower. In the analysis we include all lenders that exist in the DealScan data. These lenders are from a variety of backgrounds and organizational structures. The benefit of using the four variables mentioned above is that these variables can be consistently calculated for each lender. In addition these variables represent the size, market power, and the institutional knowledge that the lenders have gained in the multinational market.

The main variables in the second group relate to various "distance" measures between the country of the lender and the country of the borrower. These include two measures of distance in jurisdiction: a dummy variable that indicates whether two countries share the same legal origin, and creditor rights distance, defined as the difference between lender's creditor rights "strength" (score) and borrower's creditor rights "strength" (score). Other distance measures include dummies for the existence of a common border between two countries, a common official language, colonial ties, as well as variables that measure geographical distance, and cultural distance. While most of these variables are captured based on empirical studies in international trade and finance (see for example, Glick and Rose, 2015), the cultural distance dummy is used based on the study of Giannetti and Yafeh (2012).

V. Empirical Results

V.A. Summary Statistics

Table 3 provides aggregate country-level statistics using the entire sample of DealScan loan data for 1981–2016. We calculate the total amount of credit acquired by borrowing firms that are incorporated in each country. We also calculate the sum of all the credit extended by lenders based on their country of incorporation. Panel A of Table 3 reports the top 10 countries whose firms have borrowed the largest dollar amount and the largest number of corporate loans

²⁶ See Bharath, Dahiya, Saunders, and Srinivasan (2011) on the importance of lending relationships.

from both domestic and cross-border sources during the sample period. Panel A of Table 3 also reports the top 10 countries whose lenders have supplied the largest dollar amount and the largest number of corporate loans.²⁷ Next, we calculate the net credit position of a given country by calculating the difference between the total amount of credit received and the total amount of credit supplied by borrowers and lenders in the syndicated loan market. This shows whether a country is a net receiver or a net supplier of credit in the international syndicated loan market. Panel B of Table 3 reports the top 10 borrowers and the top 10 lenders based on the net amount of credit position. Countries that are top net receivers of loans in terms of both amount and number of loans are Russia, Australia, Turkey, Brazil, Bermuda and South Korea. Countries that are top net suppliers of corporate credit in terms of both amount and number of loans are Japan, Germany, United Kingdom, Switzerland, France, Netherlands, and Canada.

Table 4 provides the summary statistics for all sample loans in this study. Of 211,231 loans in the initial sample, 72,991 loans are multinational (cross-border) and 137,991 are domestic. The borrowers in our sample are from 172 countries, while the lenders are domiciled in 118 countries. The average loan in our sample has an all-in-drawn spread of 206 bps over Libor. We estimate the total cost of borrowing (TCB) for a smaller sample which has upfront fee data (25,417 rather than 211,231 loans). The average fee, estimated as the difference between TCB and all-in-drawn is 24 bps, and the average total cost of borrowing over Libor for the loans where the data is not missing is 237 bps. The average loan has a time to maturity of 52.5 months, and the average loan amount of approximately US\$260 million. Loans have 5.2 lenders and 1.3 lead lenders on average, while the median loan has 3 lenders and 1 lead lender. 37.2% of these loans are revolvers, 27.6% of loans are secured, 13.4% of loans have financial covenants, and 5.4% of loans have net worth covenants.

Table 4 also reports firm characteristics for the subset of loans that are matched with WorldScope. As reported in Table 1 the number of firms matched with WorldScope (around 13,000) is consistent with other studies. An average borrower has a book value of assets of about 707 million US\$ (log assets of 20.377). The average borrower has a profitability ratio (EBITDA/Book assets) of 0.724%, a leverage ratio (total debt/Book assets) of 28.150%, an asset tangibility ratio (property, plant, and equipment, or PP&E/Book assets) of 33.04%, and a market-to-book

²⁷ To calculate total lending we consider loans originated by lead lenders of each country. If there are lead lenders from multiple countries that participate in a deal we assume the share of each lead lender is the total loan amount divided by the number of lead lenders.

ratio (total market value of equity plus total book value of debt divided by book value of assets) of 1.235.

Table 4 also provides summary statistics for country-level explanatory variables both for borrower countries and for lender countries. These variables help determine the terms of the loan contract including the total amount of credit, the spread, the total cost of borrowing, and the maturity of the loan. Specifically, we focus on the aspects of the legal environment most closely related to creditor protection in both borrower and lender countries as summarized by the creditor rights and property rights variables. We also include other country-level institutional variables such as legal origin and the country's GDP growth rate.

V.B. Methodology

Our goal is to investigate whether differences in lenders' legal environments are associated with differences in loan spreads, loan sizes, loan maturities, and the total cost of borrowing (TCB) after controlling for the legal characteristics of the country where the borrower is incorporated. Our preliminary regressions have the log of the all-in-drawn spread, the log of the time to maturity, and the log of the loan amount as dependent variables. Additionally, for approximately 12% of the observations, we have sufficient data to estimate the total cost of borrowing as defined by Berg et al. (2016), and we therefore use the total cost of borrowing as an additional dependent variable in robustness tests in the Internet Appendix.²⁸ To show that lenders' creditor rights matter in loan contracts, we control for borrower countries' creditor rights as well as borrower risk characteristics, loan purpose, industry effects, and year effects. All regressions include dummy variables for year, borrower industry (by two-digit SIC code), loan purpose, and loan type. The standard errors are calculated with two-way clustering, by both borrower and lender country.

We consider regressions on the full sample of multinational loans, as well as on the sub-sample of multinational loans matched to WorldScope which has the major advantage of providing borrower characteristics data. We also consider regressions in which we exclude borrowers incorporated in the United States (the lenders can be incorporated in any country) and regressions in which we only consider loans denominated in US dollars. In additional tests we

²⁸ Qian and Strahan (2007), and Bae and Goyal (2009) focus on all-in-drawn as their main measure of cost of borrowing.

include controls for guarantor country, for whether the guarantor is incorporated in the lender's country, and for the geographical distribution of the borrower's assets. Our robustness tests consider some alternative definitions for the creditor rights and property rights variables.

V.C. Prior specifications

Qian and Strahan (2007) consider the effects of creditor rights on ownership concentration, loan maturity, and spread. We begin our analysis by repeating their spread analysis. Column 1 of Table 5 provides the regression results from QS (Table 3, page 2819). QS examine the effect of borrower's country laws by including both domestic and multinational loans in one regression and including a dummy variable for multinational loans. In our study we are mainly interested in multinational loans so as to distinguish the separate effects of lender laws' effects from borrower laws' effects. We replicate a sample of loans from 1994 to 2003 as in QS for the regression in Column 2 of Table 5 and find similar results. Column 3 of Table 5 includes a similar regression on the subset of multinational loans only, and again the coefficients on creditor rights and most of the legal origin variables are similar to the QS analysis.

Column 4 of Table 5 adds the creditor rights laws and legal origins of the lenders to the QS specification. The coefficients on borrower creditor rights laws remain negative and significant at the 1% level in this specification, and the coefficient on lenders' creditor rights is also negative and significant at the 1% level. The estimated coefficients imply that adding 1 more to the borrower creditor rights index is associated with a decrease in log spreads by approximately 12%, while an increase of 1 in lender creditor rights is associated with a decrease in log spreads by approximately 4%. Thus lender creditor rights also matter, although, their effects are smaller than that for borrower creditor rights.

Column 5 of Table 5 repeats the QS specification for the full sample of years up to 2016, and Column 6 adds the lender creditor rights and legal origins for the longer sample. Borrower creditor rights and legal origin variables continue to be significant with similar magnitudes as in the earlier sample, and again lender creditor rights also have a significant effect on the log spread.

V.D. Borrower's Choice of Lender

As said earlier, borrowers can choose lenders as well as vice-versa. In this section we analyze borrower's choice of a particular lender (i) out of all potential lenders, (ii) borrower's choice of foreign versus domestic lenders, (iii) borrower's choice of lender's country, and (iv) borrower's choice of lender's jurisdiction.

V.D.1. Borrower's general choice of a lender (domestic or foreign)

In the first set of tests we assume that a borrower can potentially borrow from all lenders in the world. However, to have a reasonable set of choices, we limit the borrower's set of choices to lenders that have lent to at least one firm in the same country as the borrower in the year that the borrower has borrowed. We make an unrestricted assumption that if a lender, domestic or foreign, was active in the country of the borrower then the borrower had a chance to borrow from that lender. To analyze how borrower characteristics play a role in the borrower's decision, we also restrict the borrowers in our tests to borrowers with available financial information in WorldScope.

The unit of observation in the first group of tests is borrower-potential lender-year. The results are provided in Table 6 We use a discrete choice (logistic) framework in which, the dependent variable is assigned a value of one if the borrower has chosen the potential lender, and zero if it has not. The explanatory variables include a set of lender characteristics, and a set of country characteristics. We also control for two loan characteristics namely loan size and maturity. These two represent the demand for credit by the borrower, before seeking for a lender. We also control for borrower's characteristics including size and ratios of profitability, leverage, tangibility, market-to-book as defined earlier in the paper, as well as year and industry fixed effect. Standard errors are adjusted for clustering at the borrower country level.

There are 9,546,118 borrower-potential lender combinations with available information. The results in Table 6 are presented under four specifications. In Table 6 specification (1) the main explanatory variables include lender's market share in the borrower country, lender's market share in the global market, and lender's prior relationship with the borrower. The results indicate that a potential lender's market share in the borrowing firm's market significantly improves the chances of a borrower choosing the lender. The odds ratio is 1.035, that is a one percentage increase in lender's market share gives a 3.5% increase in the odds of choosing that lender by the borrower. The relationship variable has also a significant coefficient at the 1%

indicating that a prior relationship with the lender increases the likelihood of choosing the lender again for new borrowing (The odds ratio is 22.286, that is a prior relationship increases the chances of choosing the lender by 21.286 times). We did not find that the lender's overall share in the global loan market significantly affect chances of borrower selecting the lender.

While in specification (1) we do not distinguish between foreign and domestic lenders, in specification (2) we add a dummy variable to the right-hand side variables that indicates whether the lender is domestic. Interestingly we notice that while the coefficients for all variables stay qualitatively the same as specification (1), the coefficient for lender's market share in the borrowing firm's country is not significant anymore. Instead, the coefficient for domestic lender dummy is significant and positive at the 1% level. The odds ratio for this variable is 4.654, which means being a domestic lender increases the odds of being chosen by the borrower by 3.654 times or 365.4%. To analyze whether the domestic lender's market share in the borrower's country matter differently than a foreign lender's market share in the borrower's country we introduce interaction terms of domestic lender dummy and the three main lender-level explanatory variables (borrower country market share, global market share, and prior relationship) in specification (3). We find that the interaction terms do not have a significant coefficient. Therefore, the results from the first three specifications indicate that of examined variables, domestic lenders are more likely to be chosen by the borrower, and lenders, foreign or domestic, that have had a prior relationship with the lender are more likely to be picked by the borrower.

In specification (4) of Table 6 we introduce country distance variables to the analysis. These variables include measures of geographical distance and creditor rights index distance, and also dummies for same legal origin, common border, common official language, and colonial relation. Note that the dummies can take a value of one only if the lender is from a foreign country. The results in specification (4) show that of all the country distance variables, geographical distance between the countries of the lender and the borrower has a significantly negative effect on borrower's likelihood of choosing the lender. Moreover, having colonial ties between the borrower's country and lender's country significantly increases the chances of selecting a lender. Further, we fail to find a significant relationship between other variables, including differences in legal environment on the choice of the borrower.

In Table 7 we restrict the sample to the choice of potential foreign lenders. That is, we repeat the analysis in Table 6, but this time conditioning on that the borrower has decided to select a foreign lender. The results are in general consistent with our findings in the prior table with some exceptions. Consistent with Table 6, prior relationship with a lender plays a significant role in the borrower's choice, significant at the 1% level across all specifications. Although we find that the foreign lender's prior market share in the borrower's country does not play a significant role in the borrower's choice (consistent with findings in Table 6), we find that the coefficient for foreign lender's overall reputation is statistically significant and positive. That is borrowers are more likely to choose a lender with a higher market share in the global loan market over the past five years. However, the size of the coefficient indicates that despite the statistical significance, the coefficient for lender's market share in the global market is not economically significant (odds ratio is one) across any specification. Moreover, we find that borrowers are less likely to borrow from lenders whom they share a common border with, a finding that is in contradiction with general findings in the international trade literature. We find while borrowers in general prefer borrowing from foreign lenders that have closer geographical proximity, they are less likely to borrow from their neighbors. In sum, we conclude that prior relationship, geographical distance, having a common border, and colonial ties are important factors for the borrower in the choice of a foreign lender.

V.D.2. Borrower's preference on foreign versus domestic lender, and choice of relative jurisdiction

The purpose of the analysis provided in Section V.D. is to identify factors that induce a borrower's choice of lender. In the previous sub-section we focused on the role of country level variables and lender characteristics on the borrower's decision to choose a lender. In this sub-section we focus on the role of loan and firm characteristics. We are interested in analyzing the relation between firm characteristics and measures of borrower's demand with a chosen lender's attributes. These attributes include whether the lender is foreign or domestic, the jurisdiction of the lender, and the country of the lender. Our approach in the next set of tests is similar to the empirical analysis of Fernando, Gatchev, and Spindt (2005) on IPO issuer-underwriter matching, in which the authors model an underwriter reputation, as an issuer's choice outcome, as a function of issuer's firm quality.

In Table 8 we focus on the choice of a foreign versus a domestic lender using data on WorldScope matched loans. Note that unlike the tests in the previous section, where we use a potential borrower-lender match as the unit of observation, in Table 8 we use actual borrower-lenders matches as the unit of observation. The dependent variable has a value of one if the borrower has chosen a foreign lender for its loan and a value of zero if it has chosen a domestic lender. The results are presented across three specifications. In the base analysis, specification 1, the main explanatory variables include loan size, loan maturity, and firm characteristics. In specification 2 we add borrower's country variables such as measures of creditor right, and legal origins. In specification 3 we add borrower's country-lender's country distance variables including creditor rights distance and geographical distance as well as dummies for same legal origin, common border, common official language, and colonial relation. Across all specifications we find that borrowers looking for larger loans are significantly more likely to approach foreign lenders. This finding is significant at the 1% level across all specifications. This finding indicates that demand for large loan sizes is a reason that motivates borrowers to contact foreign lenders. We, however, do not find a significant relationship between the maturity length of a loan and the preference of foreign over domestic lenders. For borrower's characteristics we find that borrower's leverage ratio and tangibility ratio have significant coefficients, but only in the last specification. The results indicate that firms with lower risk as measured by leverage and higher tangibility have higher chances of choosing a foreign lender.

In Table 9 the discrete choice variable is a measure of the relative strength of creditor rights in the lender's country with respect to the borrower's country. The dependent variable is assigned a value of 3, 2, or 1 respectively if the lender's country's creditor rights are stronger than, similar to, or weaker than the borrower's country's creditor rights. The sample for this analysis includes only foreign loans for which all variables are available. The results in Table 9 are presented using two specifications. We use an ordered logit framework to estimate the coefficients. Specification 2 differs from specification 1 in that we also control for country distance variables. The results show that of loan characteristics, loan maturity matters more in that it has a negative relation with the chances of choosing a lender from a better jurisdiction. That is, it is less likely that a borrower chooses a lender from a better jurisdiction if the borrower is seeking a longer maturity loan. The size of a borrower has a negative effect in just one specification and only at the 10% level. We do not find that other characteristics significantly

affect borrower's choice of a lender's jurisdiction. In sum, the results of the analysis provided in this section indicate that (i) in addition to borrower's characteristics such as leverage and tangibility, loan size significantly affects borrower's preference of foreign lenders over a domestic lenders. (ii) Conditional on choosing foreign lenders, the results show that in addition to borrower's characteristics such as size, loan maturity, and not loan size, significantly affects the borrower's preference over a lender's jurisdiction.

V.D.3. Borrower's choice of lender's country

As the final analysis in this section, we assume that a borrower has the choice to borrow from a lender from any country in the world. In other words, lender's country is now the choice variable. In Table 10 we investigate what explains a borrower's choice of a lender's country by focusing on our key country distance variables under four specifications. In each specification we use a different set of controls. In the base case, specification 1, the main explanatory variables include creditor rights distance, same legal origin dummy, common border dummy, common official language dummy, colonial relation dummy, geographical distance and cultural distance while we control for loan size and maturity, and year and industry fixed effects. In specification 2, we add controls for borrower characteristics. In specification 3, we add controls for borrower's country characteristics. In specification 4, we add controls for lender's characteristics. Standard errors are clustered at the borrower's country level across all specifications. We exclude domestic lending from the regression.

The results in Table 10 show that the geographical distance between a borrower's country and a lender's country is the most important variable in the table. The coefficient for the geographical distance variable is negative and significant at the 1% level across all specifications. This finding is consistent with our previous findings and shows that the further a lender's country, the less likely that lender is chosen by the borrower. Further the creditor rights distance variable, and existence of common border, and existence of common official language explain some of the variations in the borrower's choice of lender country.

Our findings in sub-section V.D. indicate that the match between a borrower and a foreign lender is affected by various factors, including different types of distance between the country of the borrower and the country of the lender, such as the geographical distance, or language, as well as other factors such as an existence of prior relationship between the lender

and the borrower, factors related to borrower characteristics, such as size, tangibility, and leverage, and finally loan maturity factor as a measure of proposed length of lending relationship. For the rest of these paper we use the findings in this sub-section to revise our loan contract analysis by accounting for borrower's endogenous choice of lender.

V.E. Effects of Lenders' Laws

Table 11 provides an analysis of spreads, maturities, and loan amounts in a specification with creditor rights and legal origin variables from both lender and borrower countries. The analysis of spreads, maturities, and loan amounts are provided in three different settings. In the first setting, including columns 1 to 3, we consider all multinational loans during 1980–2016, and we use an ordinary least square model. This setting we use all observations, and we do not control for borrower characteristics. In the second setting, including columns 4 to 6, we repeat the analysis in the first setting but we consider only multinational loans matched with WorldScope data and we control for borrower firm characteristics obtained from WorldScope.²⁹ In the third setting, columns 7 to 9, we also consider all multinational loans matched with WordScope data, however, instead of using actual lender's country variables, namely creditor rights index and legal origin dummies, we use instruments. These instruments are the predicted values of lender's country variables that we calculate in the first stage of a two-stage least squares framework.

The use of a 2SLS framework is based on the assumption that the match between the borrower and the lender's country is not random, and therefore, lender-related variables that are used in the main regressions are endogenous. In the first stage of the 2SLS model (not reported), we use our findings above and recognize variables that determine the borrower's choice of lender's legal environment. These variables include various measures of distance between the borrower's country and the lender's country, borrower characteristics, and measures of loan demand, as well as lender characteristics, specifically the existence of a prior relationship between the lender and the borrower over the past 5 years before loan initiation. These variables are used as explanatory variables to predict lender's country creditor rights index and indicators

²⁹ Note that the specification in Table 5 is slightly different than that used by QS (as reported in Table 4). Besides focusing on only multinational loans, QS include dummy variables for each currency in their regressions. As in Bae and Goyal (2009), we do not include these currency dummy variables. We provide a test of US dollar denominated loans as a robustness check below.

of legal origin in stage one.³⁰ The predicted borrower's choice of values are then used as instruments in the second stage of the 2SLS framework. As there are multiple lender variables that are predicted in the first stage, we only report the results for the second-stage regression. We use SYSLIN procedure provided by SAS statistical package with 2SLS estimation method to produce consistent and asymptotically efficient estimates.³¹ Hence, the difference between the third setting, columns 7 to 9, and the second setting, columns 4 to 6, is that in the third setting lender's country variables are predicted values, and in the second setting they are actual values.

In all the spread specifications, the lender country and borrower country creditor rights have significant negative coefficients. However, for loan maturity, lender creditor rights have a significant negative effect in all specifications, and for loan amount, lender creditor rights have a negative effect in two out of three specifications. The results using a 2SLS framework imply that lenders, while from stronger creditor rights environments, require a lower spread from foreign borrowers, they also extend smaller loans with shorter maturities. The latter may reflect the downside of strong creditor rights discussed by Acharya, Amihud, and Litov (2011), who argue that investors in better creditor right countries take less risk. Interestingly, in the 2SLS framework, in which we assume the choice of lender's country is not exogenous, we notice that the role of lender's country creditor rights is even more pronounced. That is, controlling for endogeneity, the magnitude of lender's creditor rights become larger and more significant.

To ensure that our results are not driven by the presence of US borrowers in the sample or by the deal currency, we repeat the 2SLS spread analysis in Table 12 excluding loans to US borrowers (Columns 4 to 6), and including only US dollar denominated loans, the most dominant currency in our data (Columns 7 to 9). Columns 1 to 3 are the results with our unrestricted sample as a base for comparison. As can be seen the results regarding lender's creditor rights stay qualitatively the same. Interestingly in specification (6), where we control for borrower's endogenous choice of lender in the sample of loans to non-US borrowers, we find that the

³⁰ Stage 1 regression results are not reported to save space.

³¹ We use SAS Procedure Syslin to estimate the model:

```
PROC SYSLIN DATA="loan data name" 2SLS;
```

```
    ENDOGENOUS variables that determine lender's country's legal environment";
```

```
    INSTRUMENTS country distance variables, lender characteristics, selected borrower and loan variables;
```

```
    MODEL Loan characteristic = Explanatory variables incl. lender country's creditor rights and legal origin variables;
```

```
RUN;
```

coefficient for borrower's creditor rights becomes insignificant, while the coefficient for lender's creditor rights remain negative and significant.

We next investigate alternative measures of creditor rights. The basic creditor rights index is only available until 2003, and we extend this index annually to 2016 using the index for 2002. In Table 13 we repeat our main results for spread in Column 1 over the 1980–2016 sample period as a base for comparison, and in Column 2 we repeat this analysis, but this time we only use the sample of loans that are initiated before 2003. The results stay qualitatively the same. In Column 3 we repeat the analysis but this time instead of extending creditor rights indices to 2016, we use we use data from World Bank's legal rights index, available annually from 2005 to 2016, to augment our original creditor rights index. The negative relationship between the lender's creditor rights and loan spreads are even more pronounced using the augmented creditor rights index. Moreover, in Column 4 we use the "time to resolve insolvency" index from Djankov et al. (2008) as an alternative measure of creditor rights. The results for the lender country variable are consistent with our prior findings, i.e., an increase in average time to resolve insolvency in the lender's country is associated with higher loan spreads.

In Table 14 we provide a more complete specification by adding property rights (as in Bae and Goyal, 2009) as well as creditor rights and legal origin variables from both lender and borrower countries. We consider spreads, maturities, and loan size as the dependent variables, with columns 1 to 3 reflecting the full sample of multinational loans, columns 4 to 6 the narrower sample with WorldScope data, and columns 7 to 9 the WorldScope matched data in a 2SLS framework as explained above. Both borrower and lender creditor rights are significantly related to spreads in these specifications. Stronger borrower property rights are associated with significantly lower spreads in all three frameworks, and borrower property rights also imply larger loans in the full sample, and longer maturity loans in the 2SLS framework. Interestingly, we observe that lender property rights imply significantly larger loans and significantly longer maturities consistently in all three frameworks, however, we do not find that lender property rights significantly affect loan spreads. The results show that lenders from countries with stronger property rights, as a measure of enforcement of laws, are more likely to extend larger loans and loans with longer maturities to foreign borrowers.

We also consider some tests of whether the coefficients between lenders and borrowers are significantly different. For column 1 of Table 14, we reject the hypothesis that borrower and

lender creditor rights and property rights coefficients are equal at the 1% level and 5% level. Thus borrower creditor rights and borrower property rights have significantly bigger effects on spreads than lender creditor rights and lender property rights. For the loans matched to WorldScope in column 4, the estimated coefficient on borrower creditor rights is also significantly larger than the estimated coefficient on lender creditor rights, this is not however the case for Column 7, in which the results show that the estimated coefficient on borrower creditor rights or property rights are not respectively significantly larger than lender's creditor and property rights.

In the maturity regressions, columns 2, 5, and 7 we reject the null hypotheses that the coefficients on borrowers' and lenders' creditor rights are equal at the 1% level, and similarly we can also reject the hypothesis that the coefficients on borrowers' and lenders' property rights are equal at the 1% level (10% level for column 7). Similar results hold for amount in columns 3, 6 and 9. We find that the effects of lenders' property rights are significantly larger than the effects of borrowers' property rights on loan amount and maturity but less on spreads.³²

In Table 15, we explore aspects of the legal environment other than bankruptcy laws on loan spreads. To that end we add borrowers' and lenders' property rights indices to the set of explanatory variables in Columns 1 to 3 of Table 15. In Columns 4 to 6, we add measures of political safety and financial safety, and in Columns 7 and 9 we add a measure of country-level corruption. The coefficients for borrowing firm's country property rights are still negative and significant, consistent with the findings of Bae and Goyal (2009). The coefficient for borrower's political safety index, and financial safety index and freedom from corruption are also negative and significant in most of the specifications, consistent with the notion that the general legal environment and factors contributing to the effectiveness of contract enforcement in the borrowing firm's jurisdiction have additional effects in reducing loan spreads. The coefficient for the lender's country property rights is not significant in any specification. Overall, the results imply that lender's country measures of legal environment other than its creditor's right index are not as important as borrower's country measures for spreads. However, the results show that

³² We also consider whether the legal origin variables for either the borrowers or the lenders are jointly significant. We can reject the null hypothesis that the borrowers' legal origin coefficients are jointly equal to zero at the 1% level for the spread and maturity regressions, but only at the 10% level for the loan size regressions. The lender legal origin variables are not jointly significant in the spread regressions, but they are jointly significant the 5% level across various specifications. These tests provide additional evidence that non-bankruptcy lender laws matter, but more for loan maturity and amount than for spread.

the coefficients for borrowing firm's and lender's creditor rights stay qualitatively the same regardless of including other aspects of a country's legal environment, consistent with our prior findings.

V.F. Loan Guarantor Impact

In Table 16 we analyze the role of loan guarantors in the determination of loan spreads. Table 16 repeats our main spread regression in Table 15, but this time we also include variables that contain loan guarantor information. We obtain loan guarantor information from Dealscan's "Loan guarantor" table, and guarantor's country information from Dealscan's "Company" table. A loan guarantor is usually the borrowing firm's parent company, a company in the same group as the borrowing firm, or a major shareholder of a borrowing firm. Table 16 provides the results separately for all multinational loans and for the sample of multinational loans that we match with WorldScope, where firm level controls are also included. Table 16 also report the results for WorldScope loans in a 2SLS framework, where we control for borrower's endogenous choice of a lender. For each sample we report two specifications. In the first specification we add a dummy variable that indicates whether the loan has a guarantee to the set of explanatory variables. In the second specification we add an additional dummy variable that indicates whether the guarantor is incorporated in the lender's country. The purpose for having two specifications is that the first specification measures the effect of having a guarantor in general, and the second specification measures the marginal effect of having a guarantor that is in the same jurisdiction as the lender.

The results in Table 16 show that having a guarantor in general has no significant effect in our full sample. Loans with guarantors have significantly higher spreads when we control for firm characteristics in our WorldScope matched sample, and when we employ a 2SLS framework. This result is consistent with prior studies including Berger and Udell (1990) and Santos and Winton (2008) who show that having a guarantor and some other loan features that aim to increase loan safety (such as dividend restrictions, etc.) are typically associated with higher spreads. This finding reflects the well-established result that banks tend to require these features for riskier loans.

However, when we introduce a dummy variable that indicates the existence of a borrower guarantor in the same country as the lender, we observe a significant negative effect on spread in OLS specifications. These tests provide additional evidence that guarantees reduce the spread

only if they are provided by a guarantor located in the lender's country. In other words, not only does the country of the lender matter, but also the country of the lender matters more if there is a guarantor from that country for the loan borrower.

When we control for the borrower's endogenous choice of a lender in Columns 5 and 6, we observe that the coefficient for a guarantor in the lender's country becomes insignificant. Our findings using a 2SLS framework supports our findings in the prior tables: even controlling for the borrower's endogenous choice, the lender country's creditor rights matter regardless of whether or not a guarantor exists in the lender's country.

V.G. Foreign Asset Impact

So far we have shown that while the creditor rights of the borrower's country jurisdiction matters, creditor rights of the lender's country also plays a significant role in multinational loan contract features. The finding that lender's country creditor rights matter could be due to foreign borrowing firms in our sample having assets in their lender's own country. To investigate the effect of borrower's foreign assets on loan spreads, we extend our analysis and construct three indicators for borrower's foreign assets and add them to our main tests. The first indicator corresponds to the existence of foreign assets for the borrower. The second indicator measures whether borrower has foreign assets in the lender's jurisdiction. The third measure is an interaction term between borrower having assets in the lender's jurisdiction and lender's creditor rights index. The value of using the third measure is that we are interested to see if the existence of assets in the lender's jurisdiction makes the effect of lender's creditor rights more pronounced than otherwise.

Using the Geographic Segment Data from WorldScope, we identify the geographic location of a firm's foreign assets for our WorldScope matched sample. WorldScope fields 19600-19695 include all the geographic regions that a firm has operations in, sells to, or has assets in, as reported by the firm. For the purpose of our paper we are interested in seeing whether the borrower has assets in the country of its lender. The geographic regions self-reported by the firm do not have a unique standard format. Some reported regions are very specific and include the names of the foreign countries in which the firm has assets. Others are less specific and include a continent or a group of countries the firm has assets in; e.g., "Europe", "NAFTA", "North America", "Middle East." Therefore, we manually check each borrower-lender

observation for which we have WorldScope data and judge whether the lender country and the region the borrower has assets in are in the same jurisdiction, or whether the lender country belongs to the region the borrower has assets in. We ignore very general self-reported regions such as “International”, “Foreign”, “Other Countries”, “Other Foreign Countries”, etc. We identify 992 loans of the 4,165 multinational loans (about 24%) in our WorldScope sample for which borrowers report having foreign assets. Out of this sample, 478 loans belong to borrowers that have assets in the jurisdiction of the lender (about 11% of all loans or 48% of loans belonging to borrowers with foreign assets).

Following the format in the previous tables, in Table 17 we report the result of our spread regressions under three specifications, without and with firm controls, as well as a 2SLS framework. Under each general specification, we report the results of three specifications. In the first specification we introduce an indicator variable for whether the borrower has foreign assets. In the second specification we introduce another indicator variable that equals 1 if the borrower has foreign assets in the jurisdiction of the lender. In the third specification we add an interaction term that is the product of a having assets in the lender’s jurisdiction dummy and lender’s country creditor rights index.

Consistent with the notion that the borrower having foreign assets makes monitoring more costly, the results in Table 17 show that having foreign assets in general has no impact or is associated with an increase in the borrower’s loan spread. However, after controlling for the borrower having foreign assets, we find that borrowers who have foreign assets in the lender’s country have significantly lower spreads. In other words, foreign assets reduce loan spreads only if the foreign assets are located in the legal jurisdiction of the lender.³³

Next, we explore if the borrower’s assets in the lender’s jurisdiction matter more if the lender has better creditor rights. We find that the coefficient for the interaction term is not significantly different from zero, implying that regardless of lender’s creditor rights, a loan is less risky if the borrower has assets in the lender’s jurisdiction. In other words, the home law advantage and relatively easiness to seize some of a borrower’s assets makes the loan less risky for the lender, regardless of the difference between borrower’s creditor rights and lender’s

³³ We also consider whether the coefficients on the two foreign asset variables—“borrower has foreign assets” and “borrower’s foreign assets are located in the lender’s jurisdiction”—sum to zero. We reject the null hypothesis that the sum of these coefficients is equal to zero at the 5% level for the regression without firm controls and at the 1% level for the regression with firm controls. Thus the total impact of having foreign assets located in the lender’s jurisdiction is significantly negative.

creditor rights. In the regression that we control for the borrower's exogenous choice lender with all three foreign asset indicators (Column 9) we observe that existence of borrower's asset in the lender jurisdiction does not significantly affect loan spread.

The results across all specifications in Table 17 show that the coefficients for borrower and lender countries' laws stay qualitatively the same as in our prior tests. This finding has two implications: first, our result that lender country laws matter is not just explained by borrower's foreign assets in the lender country. Second, we find some evidence that having foreign assets not in the lenders' jurisdiction increases the lender's risk, potentially because the borrower can shift assets between countries. Lenders thus require higher interest rates to compensate for the increase in the cost of monitoring the borrower and the increase in the complexity and difficulty of seizing assets in the event the borrower defaults.

V.H. Secured versus Unsecured Loans and Loss Given Default

At a minimum loan spreads reflect potential losses that lenders may incur or so-called expected loss. Three factors are relevant in analyzing expected loss: probability of default (PD), exposure at default (EAD), and loss given default (LGD). One mechanism through which lender creditor rights affect expected losses is through reducing LGD. That is, stronger creditor rights should help the lender gain a higher recovery rate when or if the borrowing firm defaults. For a secured loan, the borrowing firm has pledged specific collateral. If the borrowing firm defaults, the lender can take specific steps as outlined in both the loan contract and the governing legal environment to claim the loan's underlying collateral. With an unsecured loan, the borrowing firm has not pledged specific collateral that would be available to the lender if the borrowing firm defaults.³⁴ As a consequence, unsecured creditors typically have to file a lawsuit against the borrowing firm to initiate collection proceedings, which may be difficult in the context of cross-border lending. We next test whether creditor rights have a stronger impact on spreads of secured versus unsecured loans. In Table 18 we distinguish between the subset of loans that are secured and the subset of loans that are unsecured. Table 18 reports the results both for the full loan sample and the loan sample matched with WorldScope using regular OLS, and for the sample matched with WorldScope using a 2SLS framework. The results in Table 18 show that the coefficient for lender creditor rights is significantly negatively related to loans spreads for

³⁴ That is the lender joins the general unsecured creditors with claims on the defaulting firm's assets.

secured loans regardless of the choice of sample and model specification (significant at the 1% or 5% levels). Interestingly, in the WorldScope sample we observe that the coefficient for lender creditor rights is not significantly different from zero for the subsample of unsecured loans, with and without the assumption that the selection of the lender is endogenous. Overall, the results are consistent with the notion that creditor rights favorably impact secured loans rather than unsecured loans.

V.I. Total Cost of Borrowing

Finally, we show that our results are consistent if we replace the AISD (spread) with TCB, i.e., that lender creditor rights lowers the cost of multinational loans for borrowers. The results and the discussion are provided in the Internet Appendix.

VI. Conclusion

We examine the effect of lenders' laws on multinational loan contract terms. Consistent with bankruptcy proceedings sometimes occurring in the lenders' jurisdiction, or in a similar legal environment to the lender, we find that stronger lender creditor rights laws are associated with a lower cost of debt. An additional point in the lenders' creditor rights index implies a decrease in spread by approximately 4%. This is less than the effect of the borrower's creditor rights, but still economically and statistically significant. Additionally, stronger property rights laws in the lender's country imply larger loans with longer maturities.

The results are robust to alternative measures of creditor rights and property rights, to various subsamples, and to controlling for the endogeneity of a borrower's choice of foreign lender. Controlling for loan guarantors does not change our results, and loans with guarantors have higher spreads unless the guarantor is in the lenders' country. Similarly, firms with international assets have higher loan spreads unless the assets are located in the lenders' country. Overall this paper provides a more complete picture of how laws are related to international loan contracts terms across countries.

References

- Bae, K. H., & Goyal, V. K. (2009). Creditor rights, enforcement, and bank loans. *The Journal of Finance*, 64(2), 823-860.
- Berg, T., Saunders, A., & Steffen, S. (2016). The total cost of corporate borrowing in the loan market: Don't ignore the fees. *The Journal of Finance*, 71(3), 1357-1392.
- Berg, T., Saunders, A., Steffen, S., & Streitz, D. (2017). Mind the gap: The difference between US and European loan rates. *The Review of Financial Studies*, 30(3), 948-987.
- Bharath, S. T., Dahiya, S., Saunders, A., & Srinivasan, A. (2009). Lending relationships and loan contract terms. *The Review of Financial Studies*, 24(4), 1141-1203.
- Brown, A. B. (2016). Institutional differences and international private debt markets: a test using mandatory IFRS adoption. *Journal of Accounting Research*, 54(3), 679-723.
- Chava, S., & Roberts, M. R. (2008). How does financing impact investment? The role of debt covenants. *The Journal of Finance*, 63(5), 2085-2121.
- Demirguc-Kunt, Asli, and Vojislav Maksimovic. (1998). Law, finance and firm growth. *Journal of Finance* 53, 2107–2137.
- Djankov, S., Hart, O., McLiesh, C., & Shleifer, A. (2008). Debt enforcement around the world. *Journal of political economy*, 116(6), 1105-1149.
- Djankov, S., McLiesh, C., & Shleifer, A. (2007). Private credit in 129 countries. *Journal of Financial Economics*, 84(2), 299-329.
- Esty, B. C., & Megginson, W. L. (2003). Creditor rights, enforcement, and debt ownership structure: Evidence from the global syndicated loan market. *Journal of Financial and Quantitative Analysis*, 38(1), 37-60.
- Fernando, C. S., Gatchev, V. A., & Spindt, P. A. (2005). Wanna dance? How firms and underwriters choose each other. *The Journal of Finance*, 60(5), 2437-2469.
- Gadanecz, B., & von Kleist, K. (2002). Do syndicated credits anticipate BIS consolidated banking data?. *BIS Quarterly Review*, (Part 7), 65.
- Giannetti, M., & Yafeh, Y., (2012). Do cultural differences between contracting parties matter? Evidence from syndicated bank loans. *Management Science* 58, 365-383.
- Glick, R., & Rose, A. K. (2015). Currency unions and trade: A post-EMU mea culpa (No. w21535). National Bureau of Economic Research.

- Honigsberg, C., Katz, S., & Sadka, G. (2014). State contract law and debt contracts. *Journal of Law and Economics* 57, 1031-1061.
- Houston, J. F., Itzkowitz, J., & Naranjo, A. (2017). Borrowing beyond borders: Foreign assets, lender choice, and loan pricing in the syndicated bank loan market. *Journal of Corporate Finance*, 42, 315-334.
- Inglehart, R., & Baker, W. E. (2000). Modernization, cultural change, and the persistence of traditional values. *American sociological review*, 19-51.
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, 1997, Legal determinants of external finance, *Journal of Finance* 52, 1131–1150.
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, 1998, Law and finance, *Journal of Political Economy* 106, 1113–1155.
- LoPucki, L. M. (2000). Cooperation in international bankruptcy: A post-universalist approach. *Cornell Law Review* 84, 696-762.
- Mellor, T., & Marsh, M. (2016). An Introduction to Legal Risk and Structuring Cross-Border Lending Transactions. In: Mellor, T. (Ed.), *The International Comparative Legal Guide to: Lending & Secured Finance*, 4th Edition, Global Legal Group Ltd., London, 15-19.
- Qian, J., & Strahan, P. E. (2007). How laws and institutions shape financial contracts: The case of bank loans. *The Journal of Finance* 62(6), 2803-2834.
- Sharman, J. (2005). Exclusive jurisdiction clauses – can they be relied on? *The In-House Perspective* 1, 9-12.
- Thiel, S. (2000) Choice of law and the home-court advantage: Evidence. *American Law and Economics Review* 2, 291-317.
- Tung, F. (2001) Is international bankruptcy possible? *Michigan Journal of International Law* 23, 31-102.
- Westbrook, J. L. (2000). A global solution to multinational default. *Michigan Law Review* 98, 2276-2328.

Figure 1 – Total size of cross-border loan market (\$trillion)

The graph shows the quarterly outstanding size of the cross-border loan market as reported by the Bank of International Settlement over 1995–2016. Only loans to non-bank borrowers are reported.

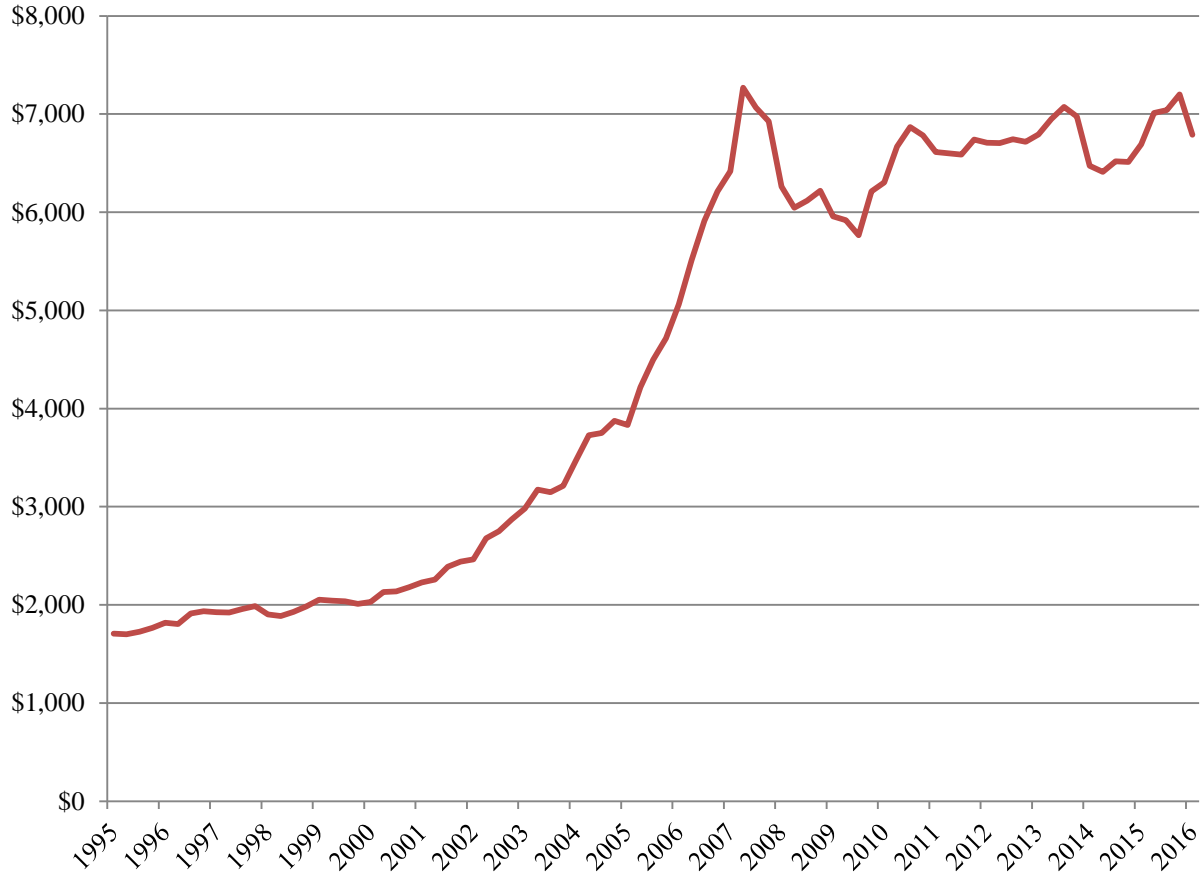


Table 1 – Comparison of our sample size with those of previous studies

The table reports the size of the sample of corporate loan data with firm-level information, used in previous studies on multinational loans and in this study.

Study	Sample period	Source of firm-level data:	Sample size
This study	1981-2016	Worldscope	13,813
Qian and Strahan (2007)	1994-2003	Worldscope	4,322
Bae and Goyal (2009)	1994-2003	Worldscope	4,407
Knyazeva, Knyazeva, and Stiglitz (2014)	1994-2008	Compustat Global	2,036
Brown (2016)	2000-2012	Worldscope	3,834

Table 2 – Variable description

Variable	Primary Source	Description
Domestic Lender	DealScan	Dummy equal to one if the borrower and the lender are from the same country.
Lender's market share in the borrowing firm's loan market (last 5 years)	DealScan	The percentage of total amount of loans that the lender or another member of the lender's group have been a part of as a lead lender relative to the total amount of loans issued in the country of the borrower over five years prior to the year the loan was initiated. A lender's group is defined as all lenders with the same ultimate parent.
Lender's market share in the global loan market (last 5 years)	DealScan	The percentage of total amount of loans that the lender or another member of the lender's group have been a part of as a lead lender relative to the total amount of loans issued across all countries over five years prior to the year the loan was initiated. A lender's group is defined as all lenders with the same ultimate parent.
Prior relationship (last 5 years)	DealScan	Dummy equal to one if the lender or a member of the lender's group had at least one lending relationship over the five years prior to the year the loan was initiated.
Same legal origin	DealScan	Dummy equal to one if the lender's country and the borrower's country share the same legal origin (English, French, German, Scandinavian, Social).
Creditor rights distance	Djankov et al. (2007)	The difference between creditor rights index in the lender's country and in the borrower's country
Common border	GeoDist Database and Andrew K. Rose website	Dummy equal to one if the lender's country and the borrower's country share a common border
Common official language	GeoDist Database and Andrew K. Rose website	Dummy equal to one if the lender's country and the borrower's country share a common official language
Colonial relation	GeoDist Database and Andrew K. Rose website	Dummy equal to one if the lender's country and the borrower's country have had colonial ties
Geographical distance	GeoDist Database and Andrew K. Rose website	Logarithm of the physical distance in miles between the capital of the country of the lender and the capital of the borrower's country
Cultural distance	The World Value Survey	Euclidean distance between the cultures of the borrower's and the lender's countries (Giannetti and Yafeh, 2012). According to Inglehart and Baker (2000) each country's culture can be summarized into two values: (1) the extent to which a society is traditional versus secular. (2) the extent to which a society emphasizes on survival values versus self-expression.

Table 3 – Countries with largest corporate loan borrowing and lending

The table reports the largest borrowing and lending countries. Panel A reports the rank of top ten largest destination of credit in the global syndicate loan market (first three columns) and the top ten largest providers of (second three columns). In the first three columns, countries are ranked respectively in terms of the total amount (US\$) and the total number of all multinational and domestic loan deals received by the borrowers incorporated in those countries during 1981-2016 period. In the second three columns, countries are ranked both in terms of the total amount (US\$) and total number of all multinational and domestic loan deals provided by the lenders incorporated in those countries during 1981-2016 period. Panel B reports the rank of top ten countries who are the largest net borrowers of corporate credit and the largest net providers of corporate credit. Countries in top ten lists in terms of amount and number of loans are presented in bold font.

Panel A. Largest global corporate loan borrowers and lenders

Rank	Largest borrowers ranked based on		Rank	Largest lenders ranked based on	
	Sum of loan deals	Number of loan deals		Sum of loan deals	Number of loan deals
1	US (\$28,321b)	US (99,101)	1	US (\$27,505b)	US (104,982)
2	UK (\$4,551b)	Japan (25,443)	2	UK (\$5,508b)	Japan (34,609)
3	France (\$2,407b)	Hong Kong (8,011)	3	Germany (\$3,446b)	UK (22,712)
4	Germany (\$2,228b)	UK (7,517)	4	France (\$3,289b)	France (15,156)
5	Canada (\$2,227b)	Australia (7,238)	5	Canada (\$2,805b)	Germany (14,111)
6	Australia (\$1,393b)	Canada (6,398)	6	Netherlands (\$1,946b)	Canada (11,759)
7	Spain (\$1,345b)	China (4,083)	7	Japan (\$1,862b)	Netherlands (9,684)
8	Netherlands (\$1,065b)	Taiwan (3,930)	8	Switzerland (\$1,778b)	Hong Kong (8,040)
9	Switzerland (\$851b)	South Korea (3,905)	9	Spain (\$1,076b)	Australia (6,575)
10	Italy (\$808b)	France (3,831)	10	Australia (\$1,018b)	Switzerland (5,997)

Panel B. Largest global corporate loan net borrowers and net lenders

Rank	Largest net borrowers ranked based on		Rank	Largest net lenders ranked based on	
	Sum of loan deals	Number of loan deals		Sum of loan deals	Number of loan deals
1	US (\$816b)	Indonesia (1,365)	1	Japan (\$1,500b)	UK (15,195)
2	Russia (\$419b)	South Korea (1,112)	2	Germany (\$1,218b)	France (11,325)
3	Australia (\$376b)	Thailand (981)	3	UK (\$958b)	Germany (10,506)
4	Turkey (\$279b)	Russia (908)	4	Switzerland (\$927b)	Japan (9,166)
5	Spain (\$268b)	India (870)	5	France (\$882b)	Netherlands (7,752)
6	Brazil (\$259b)	Turkey (786)	6	Netherlands (\$881b)	US (5,881)
7	Mexico (\$245b)	Mexico (737)	7	Canada (\$578b)	Canada (5,361)
8	Bermuda (\$242b)	Australia (663)	8	Norway (\$133b)	Switzerland (5,154)
9	Greece (\$240b)	Brazil (651)	9	China (\$100b)	Singapore (1,727)
10	South Korea (\$239b)	Bermuda (628)	10	Taiwan (\$25b)	Italy (1,646)

Table 4 – Summary statistics for loan-level and country-level variables

This table reports loan-level and country-level summary statistics for all loans in Dealscan from 1980 to 2016. If multiple loans belong to the same loan package, we only keep the largest loan in the loan package. Detailed descriptions and sources for the variables are presented in Appendix A.1. Financial information from borrowers are derived from Worldscope.

	Number	Mean	1 st percentile	Median	99 th percentile
General sample information					
Number of Loans	211,231				
Number of Multinational Loans	73,991				
Number of Domestic Loans	137,240				
Number of Borrower countries	172				
Number of lender countries	118				
Loan-level variables					
All-in-drawn spread (bps)	114,711	205.850	14.500	175.000	700.000
Log (spread)	114,711	5.020	2.674	5.165	6.552
Fees	14,307	23.938	0.000	13.000	182.500
Total Cost of Borrowing (bps)	14,307	237.143	21.167	185.000	786.364
Loan maturity (months)	190,657	52.528	4.000	48.000	240.000
Log (maturity)	190,657	3.657	1.386	3.871	5.481
Loan amount (US\$)	211,077	260,572,370	45,534	69,302,857	3,000,000,000
Log (amount)	211,077	17.438	10.829	18.064	21.822
Number of lenders	211,213	5.224	1.000	3.000	30.000
Number of lead lenders	211,213	1.300	1.000	1.000	6.000
Revolver loan	211,213	0.372			
Secured	211,213	0.276			
Financial covenant	211,213	0.134			
Net worth covenant	211,213	0.054			
Borrower-level variables					
Log (assets in US\$)	11,802	20.377	15.099	20.271	25.974
Profitability ratio (percentage)	11,779	0.724	-86.148	2.459	23.359
Leverage ratio (percentage)	11,746	28.150	0.000	25.103	98.135
Tangibility ratio (percentage)	11,540	33.041	0.009	28.804	92.487
Market-to-book ratio	10,522	1.235	0.154	0.941	7.008
Borrower country variables					
GDP growth rate (percentage)	203,161	2.840	-5.417	2.667	9.895
Creditor rights	208,479	1.693	0.000	1.000	4.000
Property rights	208,479	19.390	11.750	20.583	23.000
French legal origin	208,479	0.095			
German legal origin	208,479	0.208			
Scandinavian legal origin	208,479	0.015			
Socialist legal origin	208,479	0.009			
Lender country variables					
GDP growth rate (percentage)	263,982	2.436	-5.417	2.398	8.931
Creditor rights	271,010	1.818	0.000	1.000	4.000
Property rights	251,298	19.884	12.958	20.583	23.000
French legal origin	271,010	0.132			
German legal origin	271,010	0.247			
Scandinavian legal origin	271,010	0.016			
Socialist legal origin	271,010	0.002			

Table 5 – Comparing results with prior studies: Explanatory and control variables consistent with Qian and Strahan (2007).

We include but do not report coefficients on year indicators, industry indicators (two-digit SIC), indicators on loan type, purpose, multinational loans and currency, and firm characteristics from Worldscope (Log of total assets, Net income/assets, Total debt/assets, PP&E/assets, Market to book ratios), and borrower and lender countries' percentage change in GDP, and log of GDP/capita. Following Qian and Strahan (2007) we drop loans to firms in financial industries, as well as public sector loans (SICs 6 and 9). The table reports t-statistics in parentheses reflecting standard errors that are adjusted for clustering at the borrower country level.

	Log of All-in Spread Drawn (AISD)					
	(1)	(2)	(3)	(4)	(5)	(6)
	QS (2007)'s Table 3 1994-2003 (all loans)	Replication of QS sample and results 1994-2003 (all loans)	Replication of QS sample and results 1994-2003 (Multinational loans only)	Adding lender country variables 1994-2003 (Multinational loans only)	Replication of QS results 1981-2016 (Multinational loans only)	Adding lender country variables 1981-2016 (Only multinational loans)
Borrower's Country						
Creditors' rights	-0.145** (2.04)	-0.179*** (-3.66)	-0.132*** (-2.93)	-0.121*** (-2.91)	-0.128** (-2.2)	-0.124** (-2.13)
French legal origin	-0.196* (1.76)	-0.201 (-1.31)	-0.133 (-1.02)	-0.100 (-0.77)	-0.173 (-1.43)	-0.157 (-1.29)
German legal origin	-0.317** (2.91)	-0.55*** (-4.73)	-0.579*** (-5.1)	-0.537*** (-4.79)	-0.524*** (-4.46)	-0.503*** (-4.22)
Scandinavian legal origin	-0.768** (4.47)	-1.056*** (-5.6)	-0.8*** (-5.01)	-0.765*** (-4.78)	-0.723*** (-4.58)	-0.712*** (-4.22)
Socialist legal origin	-0.883** (5.43)	1.407*** (10.62)	1.268*** (8.33)	1.271*** (7.97)	0.787*** (5.19)	0.765*** (4.69)
Lender's Country						
Creditors' rights				-0.044*** (-3.46)		-0.031*** (-3.54)
French legal origin				-0.099* (-1.94)		-0.075** (-2.17)
German legal origin				-0.12*** (-2.72)		-0.095** (-2.25)
Scandinavian legal origin				0.062 (0.55)		0.034 (0.5)
Socialist legal origin				1.875*** (5.94)		0.425 (0.74)
Multinational Loan Indicator	Yes	Yes	No	No	No	No
No. of obs.	1,255	3,897	1,345	1,320	2,995	2,944
R-squared	0.56	0.36	0.49	0.51	0.53	0.53

Table 6 – Borrower’s choice of a lender

We include but do not report coefficients on year indicators, industry indicators, borrower log(total asset), profitability ratio, leverage ratio, tangibility ratio, market-to-book ratio, as well as log(loan size) and log(loan maturity). The sample includes all borrower-potential lender pairs during 1980–2016 including borrowers from 172 countries. A potential lender is a lender that has been active in the borrower’s home country in the year that the borrower has borrowed. The table reports the result of logistic regressions in which the dependent variable is a discrete choice variable that receives a value of one if the borrower has chosen a lender and receives a value of zero otherwise. In parentheses, we report standard errors that are adjusted for clustering at the borrower and lender country levels.

	Choice of lender			
	(1)	(2)	(3)	(4)
Domestic lender		1.538*** (0.138)	1.813*** (0.175)	0.772*** (0.292)
Lender’s market share in the borrowing firm’s loan market (last 5 years)	0.034*** (0.012)	0.009 (1.504)	0.019 (0.021)	0.017 (0.020)
Lender’s market share in the global loan market (last 5 years)	-5E-14 (1E-13)	-3E-14 (1E-13)	-6E-13 (6E-14)	8E-14 (7E-14)
Prior relationship (last 5 years)	3.104*** (0.171)	3.010*** (0.147)	3.141*** (0.370)	3.064*** (0.327)
Lender’s market share in the borrowing firm’s loan market * Domestic lender			-0.001 (0.014)	0.003 (0.012)
Lender’s market share in the global loan market * Domestic lender			-2E-13 (-2E-13)	-1E-13 (1E-13)
Prior relationship * Domestic lender			-0.298 (0.271)	-0.536*** (0.201)
Same legal origin				0.009 (0.150)
Creditor rights distance				-0.072 (0.047)
Common border				-0.062 (0.253)
Common official language				-0.104 (0.202)
Colonial relation				0.460* (0.255)

Geographical distance -0.501***
(0.116)

Control for loan size and length	Yes	Yes	Yes	
Control for borrower characteristics	Yes	Yes	Yes	
Year fixed effect	Yes	Yes	Yes	
Industry fixed effect	Yes	Yes	Yes	
Number of Observations	9,546,118	9,532,016	9,532,063	9,307,157
R-squared	0.149	0.179	0.181	0.202

Table 7 – Borrower’s choice of a foreign lender

We include but do not report coefficients on year indicators, industry indicators, borrower log(total asset), profitability ratio, leverage ratio, tangibility ratio, market-to-book ratio, as well as log(loan size) and log(loan maturity). The sample includes all borrower-potential foreign lender pairs during 1980–2016 including borrowers from 172 countries. A potential foreign lender is a foreign lender that has been active in the borrower’s home country in the year that the borrower has borrowed. The table reports the result of logistic regressions in which the dependent variable is a discrete choice variable that receives a value of one if the borrower has chosen a lender and receives a value of zero otherwise. In parentheses, we report standard errors that are adjusted for clustering at the borrower and lender country levels.

	Choice of foreign lender		
	(1)	(2)	(3)
Lender’s market share in the borrowing firm’s loan market (last 5 years)	0.006 (0.022)	0.007 (0.022)	0.004 (0.024)
Lender’s market share in the global loan market (last 5 years)	2E-13** (7E-14)	2E-13** (8E-14)	2E-13** (8E-14)
Prior relationship (last 5 years)	3.164*** (0.392)	2.976*** (0.317)	3.023*** (0.331)
Creditor rights distance		-0.062 (0.052)	-0.064 (0.049)
Same legal origin		0.019 (0.127)	0.003 (0.140)
Common border		-0.479** (0.191)	-0.480** (0.199)
Common official language		-0.068 (0.173)	-0.024 (0.180)
Colonial relation		0.413 (0.264)	0.421 (0.303)
Geographical distance		-0.702*** (0.091)	-0.712*** (0.086)
Cultural distance			0.109 (0.173)
Control for loan size and length	Yes	Yes	Yes
Control for borrower characteristics	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Number of Observations	7,720,426	7,501,049	6,895,652
R-squared	0.122	0.160	0.161

Table 8 – Borrower’s preference of a foreign lender over domestic lender

We include but do not report coefficients on year indicators, industry indicators, loan purpose, borrower’s country characteristics including creditor rights index, measures of legal origin, and GDP growth rates, and borrower’s country-lender’s country distance variables such as measures of geographical distance and creditor rights distance as well as dummies for common border, common official language, colonial ties, and common legal origin. The sample includes domestic and multinational borrower-lender pairs during 1980–2016 for which a lending relationship exists. We restrict the sample to borrowers with WorldScope records. The table reports the result of logistic regressions in which the dependent variable is a discrete choice variable that receives a value of one if the lender is foreign and receives a value of zero otherwise. In parentheses, we report standard errors that are adjusted for clustering at the borrower and lender country levels.

	Choice of a foreign over a domestic lender		
	(1)	(2)	(3)
Log (loan size)	0.187*** (0.080)	0.202*** (0.066)	0.600*** (0.129)
Log (loan maturity)	0.048 (0.102)	-0.016 (0.110)	-0.176 (0.168)
Log(assets)	0.029 (0.039)	-0.009 (0.026)	0.033 (0.082)
Profitability	-0.001 (0.004)	0.002 (0.004)	0.003 (0.005)
Leverage	0.001 (0.002)	0.001 (0.002)	-0.007* (0.004)
Tangibility	-0.003 (0.002)	-0.002 (0.003)	0.022*** (0.009)
Market-to-book	-0.012 (0.048)	-0.010 (0.042)	0.050 (0.097)
Control for country distances			Yes
Control for borrower’s country variables		Yes	Yes
Year fixed effect	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Deal purpose fixed effect	Yes	Yes	Yes
Number of Observations	14,055	13,633	13,542
Pseudo R-squared	0.163	0.292	0.706

Table 9 – Borrower’s choice of jurisdiction in multinational borrowing

We include but do not report coefficients on year indicators, industry indicators, loan purpose. The sample includes multinational borrower-lender pairs during 1980–2016 for which a lending relationship exists. We restrict the sample to borrowers with WorldScope records. The table reports the result of ordered logit regressions in which the dependent variable is a discrete choice variable that is assigned a value of 3, 2, or 1 respectively if the lender’s country’s creditor rights index is higher than, equal to, or lower than the borrower’s country’s creditor rights index. In parentheses, we report standard errors that are adjusted for clustering at the borrower and lender country levels.

	Choice of relative jurisdiction	
	(1)	(2)
Log (loan size)	-0.100 (0.097)	-0.095 (0.092)
Log (loan maturity)	-0.221** (0.090)	-0.150* (0.093)
Log(assets)	-0.045 (0.028)	-0.052* (0.030)
Profitability	0.001 (0.004)	0.002 (0.003)
Leverage	-0.004 (0.002)	-0.003 (0.003)
Tangibility	0.003 (0.002)	0.003 (0.003)
Market-to-book	-0.100* (0.054)	-0.110 (0.073)
Control for country distances		Yes
Year fixed effect	Yes	Yes
Industry fixed effect	Yes	Yes
Deal purpose fixed effect	Yes	Yes
Number of Observations	5,742	5,094
R-squared	0.068	0.118

Table 10 – Borrower’s choice of lender’s country

We include but do not report coefficients on year indicators, industry indicators, borrower log(total asset), profitability ratio, leverage ratio, tangibility ratio, market-to-book ratio, as well as log(loan size) and log(loan maturity). The sample includes all borrower-potential lender’ countries pairs during 1980–2016. The table reports the result of logistic regressions in which the dependent variable is a discrete choice variable that receives a value of one if the borrower has chosen a lender’s country and receives a value of zero otherwise. In parentheses, we report standard errors that are adjusted for clustering at the borrower and lender country levels.

	Choice of lender’s country			
	(1)	(2)	(3)	(4)
Creditor rights distance	0.145* (0.082)	0.107 (0.085)	0.375** (0.151)	0.292** (0.129)
Same legal origin	0.383 (0.341)	0.537* (0.294)	0.451 (0.401)	0.407 (0.378)
Common border	-1.076* (0.599)	-0.954* (0.570)	-0.296 (0.587)	-0.369 (0.547)
Common official language	-0.672 (0.474)	-0.744 (0.520)	-0.659 (0.473)	-0.825** (0.400)
Colonial relation	-0.186 (0.680)	0.110 (0.642)	0.249 (0.656)	0.245 (0.709)
Geographical distance	-1.085*** (0.155)	-0.999*** (0.169)	-0.836*** (0.183)	-0.766*** (0.164)
Cultural distance	-0.617 (0.381)	-0.636 (0.408)	-0.508 (0.414)	-0.449 (0.411)
Control for lender’s characteristics				Yes
Control for borrower’s country characteristics			Yes	Yes
Control for borrower characteristics		Yes	Yes	Yes
Control for loan size and length	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Number of Observations	449,014	343,191	336,528	336,528
R-squared	0.113	0.133	0.157	0.206

Table 11 – Regression results, All Multinational loans

We include but do not report coefficients on year indicators, industry indicators (two-digit SIC), indicators on loan type, purpose, and borrower and lender countries' percentage change in GDP. The sample includes all multinational loans in the Dealscan dataset during 1980–2016 using one restriction: we drop loans to firms in financial industries, as well as public sector loans (SICs 6 and 9). The table reports tests in three settings. In the first and the second settings, respectively the sample includes all and WorldScope matched loans, using an unrestricted OLS framework. In the third setting, instead of using the actual values for lender's country characteristics (4 variables), we use their predicted values as instruments. Therefore, the third setting reports the results of the second stage of a 2SLS model, in which the instruments are estimated in its first stage (not reported) in regressions with these explanatory variables: measures of borrower, lender and loan characteristics in addition to various measures of distance between the country of the borrower and the country of the lender such as geographical distance and the existence of a common border, common official language, and colonial ties. The table reports in parentheses, standard errors that are adjusted for clustering at the borrower and lender country levels.

	All loans			WorldScope loans			WorldScope loans (2SLS regression)		
	(1) Spread	(2) Maturity	(3) Amount	(4) Spread	(5) Maturity	(6) Amount	(7) Spread	(8) Maturity	(9) Amount
Borrower's Country									
Creditor Rights	-0.087*** (0.015)	-0.008 (0.007)	0.017 (0.041)	-0.144*** (0.022)	0.019 (0.015)	0.070 (0.068)	-0.138*** (0.017)	0.020 (0.015)	0.084*** (0.030)
French legal origin	-0.246*** (0.05)	0.067*** (0.018)	0.157** (0.076)	-0.142** (0.061)	0.053 (0.053)	0.609*** (0.121)	-0.143*** (0.051)	0.047 (0.046)	0.439*** (0.092)
German legal origin	-0.401*** (0.035)	-0.05** (0.024)	0.074 (0.125)	-0.538*** (0.074)	-0.127** (0.062)	0.402** (0.174)	-0.604*** (0.060)	-0.101* (0.052)	0.244** (0.104)
Scandinavian legal origin	-0.589*** (0.047)	0.091*** (0.019)	0.043 (0.09)	-0.793*** (0.083)	0.213*** (0.061)	0.47*** (0.146)	-0.798*** (0.098)	0.249*** (0.081)	0.181 (0.163)
Lender's Country									
Creditor Rights	-0.033** (0.013)	-0.021*** (0.007)	-0.039 (0.035)	-0.035** (0.017)	-0.049*** (0.018)	-0.171*** (0.065)	-0.149*** (0.047)	-0.142*** (0.042)	-0.155* (0.082)
French legal origin	-0.046 (0.049)	-0.036 (0.022)	-0.034 (0.096)	-0.048 (0.055)	-0.03 (0.044)	-0.015 (0.153)	-0.254 (0.226)	0.642*** (0.243)	1.957*** (0.482)
German legal origin	-0.016 (0.047)	0.039** (0.019)	0.091 (0.099)	-0.064 (0.061)	0.053 (0.048)	0.314** (0.144)	-0.178 (0.126)	-0.388** (0.155)	0.519* (0.311)

Scandinavian legal origin	0.004	0.001	-0.194*	0.024	-0.055	0.216	2.099*	-2.288***	1.530
	(0.046)	(0.022)	(0.112)	(0.087)	(0.056)	(0.139)	(1.179)	(0.864)	(1.718)
Log(assets)				-0.013	-0.032***	0.016	-0.019	-0.041***	-0.005
				(0.012)	(0.01)	(0.025)	(0.012)	(0.010)	(0.021)
Profitability				0.002	0.002	-0.001	0.001	0.003**	0.001
				(0.002)	(0.001)	(0.003)	(0.002)	(0.001)	(0.003)
Leverage				0.001	0.002**	0.002	0.002	0.002**	0.002
				(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)
Tangibility				0.001	0.001	0.001	0.003**	0.001	0.001
				(0.001)	(0.001)	(0.003)	(0.001)	(0.001)	(0.002)
Market-to-book				0.083***	0.029***	0.067**	0.060***	0.001	0.009
				(0.013)	(0.011)	(0.03)	(0.019)	(0.001)	(0.032)
Number of Observations	55,810	84,110	91,781	2,977	4,478	5,033	2,356	3,804	3,804
R-squared	0.456	0.226	0.266	0.493	0.273	0.437	0.429	0.183	0.426

Table 12 – Regression results, Loans to Non-US Borrowers and USD Loans

We include but do not report coefficients on year indicators, industry indicators (two-digit SIC), indicators on loan type, purpose, and borrower and lender countries' percentage change in GDP and legal origin. The sample includes all multinational loans in the Dealscan dataset during 1980–2016 using one restriction: we drop loans to firms in financial industries, as well as public sector loans (SICs 6 and 9). The table reports tests in three settings. In the first and the second settings, respectively the sample includes all and WorldScope matched loans, using an unrestricted OLS framework. In the third setting, instead of using the actual values for lender's country characteristics (4 variables), we use their predicted values as instruments. Therefore, the third setting reports the results of the second stage of a 2SLS model, in which the instruments are estimated in its first stage (not reported) in regressions with these explanatory variables: measures of borrower, lender and loan characteristics in addition to various measures of distance between the country of the borrower and the country of the lender such as geographical distance and the existence of a common border, common official language, and colonial ties. The table reports in parentheses, standard errors that are adjusted for clustering at the borrower and lender country levels.

	All loans			Loans to Non-US Borrower			USD Loans		
	All loans	Worldscope loans	WorldScope loans (2SLS)	All loans	Worldscope loans	WorldScope loans (2SLS)	All loans	Worldscope loans	WorldScope loans (2SLS)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Borrower's Country									
Creditor Rights	-0.087*** (0.015)	-0.144*** (0.022)	-0.138*** (0.017)	-0.144*** (0.022)	-0.116** (0.049)	-0.076 (0.048)	-0.158*** (0.019)	-0.246*** (0.032)	-0.209*** (0.022)
Lender's Country									
Creditor Rights	-0.033** (0.013)	-0.035** (0.017)	-0.149*** (0.047)	-0.062** (0.029)	-0.070* (0.042)	-0.269* (0.153)	-0.043*** (0.015)	-0.043** (0.021)	-0.137** (0.062)
Control for Borrower Characteristics	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Number of Observations	55,810	2,977	2,356	36,456	2,183	1,825	37,842	1,902	1,481
R-squared	0.456	0.493	0.429	0.450	0.480	0.146	0.456	0.527	0.498

Table 13 – Alternative Measures of Creditor Rights

We include but do not report coefficients on year indicators, industry indicators (two-digit SIC), indicators on loan type, purpose, and borrower and lender countries' percentage change in GDP and legal origin. The sample includes all WorldScope matched multinational loans in the Dealscan dataset during 1980–2016 using one restriction: we drop loans to firms in financial industries, as well as public sector loans (SICs 6 and 9). The table reports the results of two-stage least square analyses in which we assume lender's country characteristics are endogenously determined. The instruments used in the first-stage (not reported) include measures of borrower, lender and loan characteristics in addition to various measures of distance between the country of the borrower and the country of the lender such as geographical distance and the existence of a common border, common official language, and colonial ties. The table reports in parentheses, standard errors that are adjusted for clustering at the borrower and lender country levels.

	Creditor Rights Index 1980–2016	Creditor Rights Index 1980–2003	Augmented Creditor Rights Index (World Bank legal rights index)	Time to Resolve Insolvency (Djankov et al. JPE 2008)
	(1)	(2)	(3)	(4)
Borrower's Country				
Measure of Creditor Rights	-0.138*** (0.017)	-0.143*** (0.025)	-0.075*** (0.021)	0.142*** (0.037)
Lender's Country				
Measure of Creditor Rights	-0.149*** (0.047)	-0.184** (0.081)	-0.294*** (0.077)	1.068** (0.499)
Control for Borrower Characteristics	Yes	Yes	Yes	Yes
Number of Observations	2,356	1,132	2,356	2,301
R-squared	0.429	0.410	0.387	0.143

Table 14 – The Effects of Creditor Rights and Property Rights on Loan Terms

We include but do not report coefficients on year indicators, industry indicators (two-digit SIC), indicators on loan type, purpose, and borrower and lender countries' percentage change in GDP. The sample includes all multinational loans in the Dealscan dataset during 1980–2016 using one restriction: we drop loans to firms in financial industries, as well as public sector loans (SICs 6 and 9). The table reports tests in three settings. In the first and the second settings, respectively the sample includes all and WorldScope matched loans, using an unrestricted OLS framework. In the third setting, instead of using the actual values for lender's country characteristics (4 variables), we use their predicted values as instruments. Therefore, the third setting reports the results of the second stage of a 2SLS model, in which the instruments are estimated in its first stage (not reported) in regressions with these explanatory variables: measures of borrower, lender and loan characteristics in addition to various measures of distance between the country of the borrower and the country of the lender such as geographical distance and the existence of a common border, common official language, and colonial ties. The table reports in parentheses, standard errors that are adjusted for clustering at the borrower and lender country levels.

	All loans			WorldScope loans			WorldScope loans (2SLS regression)		
	(1) Spread	(2) Maturity	(3) Amount	(4) Spread	(5) Maturity	(6) Amount	(7) Spread	(8) Maturity	(9) Amount
Borrower's Country									
Creditor Rights	-0.082*** (0.017)	-0.008 (0.007)	0.021 (0.043)	-0.144*** (0.023)	0.019 (0.016)	0.085 (0.069)	-0.135*** (0.207)	0.019 (0.014)	0.097*** (0.006)
Property Rights	-0.029*** (0.005)	-0.001 (0.003)	0.089*** (0.01)	-0.032*** (0.009)	0.008 (0.010)	0.018 (0.020)	-0.030*** (0.011)	0.016** (0.007)	0.006 (0.015)
French legal origin	-0.302*** (0.057)	0.06*** (0.018)	0.436*** (0.077)	-0.177*** (0.064)	0.062 (0.052)	0.675*** (0.116)	-0.152** (0.066)	0.058 (0.047)	0.475*** (0.097)
German legal origin	-0.425*** (0.038)	-0.064** (0.025)	0.237* (0.124)	-0.572*** (0.072)	-0.131** (0.064)	0.475*** (0.166)	-0.619*** (0.074)	-0.116** (0.051)	0.270*** (0.103)
Scandinavian legal origin	-0.556*** (0.051)	0.099*** (0.021)	-0.006 (0.098)	-0.737*** (0.089)	0.188*** (0.066)	0.477*** (0.160)	-0.732*** (0.119)	0.184** (0.079)	0.139 (0.163)
Lender's Country									
Creditor Rights	-0.038*** (0.014)	-0.022*** (0.007)	-0.037 (0.037)	-0.037** (0.018)	-0.050*** (0.017)	-0.173*** (0.061)	-0.159*** (0.057)	-0.129*** (0.040)	-0.103 (0.080)
Property Rights	0.005 (0.006)	0.008* (0.004)	0.035** (0.016)	-0.010 (0.010)	0.032** (0.015)	0.136*** (0.039)	-0.011 (0.013)	0.036*** (0.008)	0.114*** (0.017)

French legal origin	-0.048 (0.055)	-0.027 (0.024)	-0.003 (0.101)	-0.065 (0.058)	-0.003 (0.045)	0.117 (0.145)	-0.542** (0.269)	0.609** (0.241)	1.617*** (0.479)
German legal origin	-0.011 (0.05)	0.045** (0.019)	0.088 (0.102)	-0.082 (0.064)	0.086* (0.05)	0.407*** (0.142)	-0.264* (0.152)	-0.236 (0.150)	0.801*** (0.304)
Scandinavian legal origin	0.013 (0.050)	-0.018 (0.024)	-0.275** (0.119)	0.034 (0.09)	-0.080 (0.060)	0.014 (0.159)	3.764*** (1.433)	-2.253** (0.888)	2.629 (1.781)
Log(assets)				-0.015 (0.012)	-0.033*** (0.010)	0.019 (0.025)	-0.017 (0.014)	-0.045*** (0.010)	0.004 (0.021)
Profitability				0.003 (0.002)	0.002 (0.001)	-0.001 (0.002)	0.001 (0.002)	0.003** (0.001)	-0.001 (0.003)
Leverage				0.001 (0.001)	0.002** (0.001)	0.002 (0.002)	0.002 (0.001)	0.002** (0.001)	0.003 (0.002)
Tangibility				0.001 (0.001)	0.001 (0.001)	-0.001 (0.003)	0.003* (0.001)	0.001 (0.001)	-0.001 (0.002)
Market-to-book				0.071*** (0.013)	0.041*** (0.011)	0.049* (0.029)	0.052** (0.022)	0.025 (0.016)	-0.002 (0.034)
Number of Observations	50,856	75,122	82,264	2,897	4,364	4,901	2,288	3,704	3,704
R-squared	0.469	0.229	0.288	0.510	0.273	0.446	0.354	0.196	0.448

Table 15 – Other Legal Indices

We include but do not report coefficients on year indicators, industry indicators (two-digit SIC), indicators on loan type, purpose, and borrower and lender countries' percentage change in GDP and legal origin. The sample includes all multinational loans in the Dealscan dataset during 1980–2016 using one restriction: we drop loans to firms in financial industries, as well as public sector loans (SICs 6 and 9). The values for lender's country characteristics (4 variables) are predicted values (instruments). These instruments are estimated within a 2SLS framework in its first stage (not reported) in regressions with these explanatory variables: measures of borrower, lender and loan characteristics in addition to various measures of distance between the country of the borrower and the country of the lender such as geographical distance and the existence of a common border, common official language, and colonial ties. The table reports in parentheses, standard errors that are adjusted for clustering at the borrower and lender country levels.

	Log of All-in Spread Drawn (AISD)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Borrower's Country									
Creditor Rights	-0.082***	-0.144***	-0.135***	-0.056***	-0.116***	-0.101***	-0.076***	-0.142***	-0.136***
	(0.017)	(0.023)	(0.207)	(0.017)	(0.025)	(0.024)	(0.017)	(0.023)	(0.020)
Property Rights	-0.029***	-0.032***	-0.030***						
	(0.005)	(0.009)	(0.011)						
Political Safety Index				-0.010***	-0.009***	-0.008**			
				(0.002)	(0.003)	(0.004)			
Financial Safety Index				-0.027***	-0.030***	-0.037***			
				(0.004)	(0.007)	(0.007)			
Freedom from Corruption							-0.054***	0.015	-0.013
							(0.017)	(0.026)	(0.027)
Lender's Country									
Creditor Rights	-0.038***	-0.037**	-0.159***	-0.039***	-0.037**	-0.184***	-0.041***	-0.038**	-0.163***
	(0.014)	(0.018)	(0.057)	(0.014)	(0.018)	(0.063)	(0.014)	(0.018)	(0.053)
Property Rights	0.005	-0.010	-0.011						
	(0.006)	(0.010)	(0.013)						
Political Safety Index				0.003	-0.004	-0.006			
				(0.002)	(0.004)	(0.005)			
Financial Safety Index				0.003	0.006	-0.010			

Freedom from Corruption				(0.005)	(0.007)	(0.007)	0.039*	0.014	-0.018
							(0.021)	(0.023)	(0.027)

Control for Borrower Choice Endogeneity	No	No	Yes	No	No	Yes	No	No	Yes
Control for Borrower Characteristics	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Number of Observations	50,856	2,897	2,288	50,172	2,862	2,255	50,856	2,897	2,288
R-squared	0.469	0.510	0.354	0.478	0.524	0.329	0.467	0.506	0.378

Table 16 – Loan Guarantor Regression Results

We include but do not report coefficients on year indicators, industry indicators (two-digit SIC), indicators on loan type, purpose, and borrower and lender countries' legal origin indicators as well as percentage change in GDP. The sample includes all multinational loans in the Dealscan dataset during 1980–2016, dropping loans to firms in financial industries, as well as public sector loans (SICs 6 and 9). The table reports tests in three settings. In the first and the second settings, respectively the sample includes all and WorldScope matched loans, using an unrestricted OLS framework. In the third setting, instead of using the actual values for lender's country characteristics (4 variables), we use their predicted values as instruments. Therefore, the third setting reports the results of the second stage of a 2SLS model, in which the instruments are estimated in its first stage (not reported) in regressions with these explanatory variables: measures of borrower, lender and loan characteristics in addition to various measures of distance between the country of the borrower and the country of the lender such as geographical distance and the existence of a common border, common official language, and colonial ties. The table reports in parentheses, standard errors that are adjusted for clustering at the borrower and lender country levels. Guarantor is a dummy variable that equals one if the loan has a guarantor. The guarantor is usually the borrower's parent company or the borrower's main shareholder.

	Log of All-in Spread Drawn (AISD)					
	All loans		WorldScope loans		WorldScope loans (2SLS)	
	(1)	(2)	(3)	(4)	(5)	(6)
Borrower's Country						
Creditor Rights	-0.082*** (0.017)	-0.082*** (0.017)	-0.146*** (0.024)	-0.145*** (0.023)	-0.137*** (0.021)	-0.136*** (0.021)
Property Rights	-0.029*** (0.005)	-0.029*** (0.005)	-0.031*** (0.009)	-0.030*** (0.009)	-0.029*** (0.011)	-0.028** (0.011)
Lender's Country						
Creditor Rights	-0.038*** (0.014)	-0.038*** (0.014)	-0.039** (0.018)	-0.039** (0.018)	-0.160*** (0.057)	-0.160*** (0.057)
Property Rights	0.005 (0.006)	0.004 (0.006)	-0.010 (0.010)	-0.010 (0.010)	-0.011 (0.013)	-0.012 (0.013)
Loan has a guarantor	-0.021 (0.015)	0.075*** (0.019)	0.165*** (0.061)	0.251*** (0.071)	0.175** (0.080)	0.265*** (0.100)
The guarantor is located in the foreign lender's country		-0.168*** (0.026)		-0.174* (0.087)		-0.227 (0.149)
Control for Borrower Characteristics	No	No	Yes	Yes	Yes	Yes
Number of Observations	50,856	50,856	2,897	2,897	2,288	2,288
R-squared	0.469	0.470	0.512	0.512	0.351	0.352

Table 17 – Foreign Assets Regression Results

We include but do not report coefficients on year indicators, industry indicators (two-digit SIC), indicators on loan type, purpose, multinational loans, and borrower and lender countries' legal origin indicators as well as percentage change in GDP. The sample includes all multinational loans in the Dealscan dataset during 1980–2016 that borrower information is available on Worldscope dataset, dropping loans to firms in financial industries, as well as public sector loans (SICs 6 and 9). In Columns (7) to (9) we use a two-stage least square framework in which we assume lender's country characteristics are endogenously determined. The instruments used in the first-stage (not reported) include measures of borrower, lender and loan characteristics in addition to various measures of distance between the country of the borrower and the country of the lender such as geographical distance and the existence of a common border, common official language, and colonial ties. The table reports in parentheses, standard errors that are adjusted for clustering at the borrower and lender country levels. The two dummy variables correspond to borrower's foreign asset status are: Borrower has foreign assets, and Borrower's foreign assets are located in the lender's jurisdiction. We also include an interaction term that measures whether lender country's superiority in protecting creditors' rights matter more when borrower has assets in the lender's country.

	Log of All-in Spread Drawn (AISD)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Borrower's Country									
Creditor Rights	-0.156*** (0.022)	-0.154*** (0.022)	-0.154*** (0.022)	-0.146*** (0.023)	-0.143*** (0.024)	-0.143*** (0.024)	-0.137*** (0.021)	-0.133*** (0.021)	-0.133*** (0.021)
Property Rights	-0.044*** (0.008)	-0.045*** (0.008)	-0.045*** (0.008)	-0.032*** (0.009)	-0.033*** (0.009)	-0.033*** (0.009)	-0.030*** (0.011)	-0.031*** (0.011)	-0.031*** (0.011)
Lender's Country									
Creditor Rights	-0.036** (0.018)	-0.036** (0.018)	-0.034* (0.017)	-0.038** (0.018)	-0.038** (0.018)	-0.036** (0.018)	-0.159*** (0.056)	-0.163*** (0.057)	-0.157*** (0.058)
Property Rights	-0.006 (0.009)	-0.007 (0.009)	-0.007 (0.009)	-0.010 (0.010)	-0.011 (0.010)	-0.011 (0.010)	-0.011 (0.013)	-0.013 (0.013)	-0.012 (0.013)
Borrower has foreign assets	0.049 (0.035)	0.164*** (0.050)	0.163*** (0.048)	0.055 (0.041)	0.156*** (0.049)	0.156*** (0.049)	0.052 (0.054)	0.160** (0.068)	0.160** (0.068)
Borrower's foreign assets are located in the lender's jurisdiction		-0.206*** (0.063)	-0.173* (0.010)		-0.188*** (0.063)	-0.163* (0.099)		-0.200*** (0.076)	-0.140 (0.108)
Lender Creditor Rights × Borrower's foreign assets are located in the lender's jurisdiction			-0.015 (0.034)			-0.011 (0.035)			-0.027 (0.034)

Control for Borrower Choice	No	No	No	No	No	No	Yes	Yes	Yes
Endogeneity	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Control for Borrower Characteristics	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	3,650	3,650	3,650	2,897	2,897	2,897	2,288	2,288	2,288
R-squared	0.493	0.496	0.496	0.510	0.513	0.513	0.356	0.351	0.351

Table 18 – Secured Versus Unsecured Loans

We include but do not report coefficients on year indicators, industry indicators (two-digit SIC), indicators on loan type, purpose, and borrower and lender countries' legal origin indicators as well as percentage change in GDP. The sample includes all multinational loans in the Dealscan dataset during 1980–2016, dropping loans to firms in financial industries, as well as public sector loans (SICs 6 and 9). The table reports tests in three settings. In the first and the second settings, respectively the sample includes all and WorldScope matched loans, using an unrestricted OLS framework. In the third setting, instead of using the actual values for lender's country characteristics (4 variables), we use their predicted values as instruments. Therefore, the third setting reports the results of the second stage of a 2SLS model, in which the instruments are estimated in its first stage (not reported) in regressions with these explanatory variables: measures of borrower, lender and loan characteristics in addition to various measures of distance between the country of the borrower and the country of the lender such as geographical distance and the existence of a common border, common official language, and colonial ties. The table reports in parentheses, standard errors that are adjusted for clustering at the borrower and lender country levels. We run tests separately on the sample of secured loans and unsecured loans.

	Log of All-in Spread Drawn (AISD)					
	All loans		WorldScope loans		WorldScope loans (2SLS)	
	Secured (1)	Unsecured (2)	Secured (3)	Unsecured (4)	Secured (5)	Unsecured (6)
Borrower's Country						
Creditor Rights	-0.044*** (0.009)	-0.061*** (0.018)	-0.082*** (0.028)	-0.105*** (0.023)	-0.072** (0.029)	-0.098*** (0.022)
Property Rights	-0.012*** (0.005)	-0.048*** (0.005)	0.007 (0.014)	-0.043*** (0.012)	0.017 (0.015)	-0.044*** (0.011)
Lender's Country						
Creditor Rights	-0.026*** (0.007)	-0.029* (0.015)	-0.043*** (0.013)	-0.019 (0.018)	-0.151** (0.069)	-0.055 (0.072)
Property Rights	-0.004 (0.005)	0.005 (0.007)	-0.007 (0.009)	-0.012 (0.011)	-0.009 (0.017)	-0.015 (0.013)
Control for Borrower Characteristics	No	No	Yes	Yes	Yes	Yes
Number of Observations	19,178	31,678	722	2,175	574	1,714
R-squared	0.460	0.421	0.616	0.480	0.567	0.362