

Trust and Contracting with Foreign Banks: Evidence from China

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Abstract

We investigate whether firms doing business in high social trust environment manage to receive preferential treatment on loan contractual terms with foreign lenders. Tracing cross-border syndicated lending activities in China, we observe that indeed firms located in provinces with higher social trust scores receive significantly cheaper (lower spread) loans, pay lower upfront fees, and experience less stringent collateral requirement. The result is more robust for firms located in provinces with relatively lower formal institutional development and for deals where there is presence of local syndicate partners.

Keywords: Social trust, Cost of bank loans, Loan contracts, Institutional development

1. Introduction

The early studies focus on the role of trade in determining international capital flows across countries. Recent literature emphasize other cross-border financial linkages along with the spread of the competition and integration of global financial markets. In particular, international banks have become one of the major sources of fund (esty and Megginson, 2003). Credit supply by banks is heavily subject to the banks' assessment of the creditworthiness of the borrowers. As inside lenders and delegated monitors (Diamond, 1984), banks invest in costly information production to screen borrowers *ex ante* and monitor the borrowers *ex post* (Bharath et al., 2011). In cross-border syndicated loans, the heightened information asymmetry creates an even more severe dilemma for potential lenders (Mian, 2006). Consequently, foreign banks tend to shy away from firms with significant "soft-information" (Mian, 2006; Stein, 2002). Researchers have documented that there exists significant difference in interest rates across different countries (Giannetti and Yafeh, 2012; Massa and Zaldokas, 2014) because of the heterogeneity in information costs and enforcement of loan contracts.

There is an emerging line of research emphasizing the importance of social trust as a form of social capital and its influence on economic and financial outcomes (Ang et al., 2014; Guiso et al., 2004; Wu et al., 2014). Social trust is viewed as a the propensity of one person and a group to comfortably place resources at the disposal of another personal or group with the expectation of fair payoff and without any legal commitment involved (Butler et al., 2012). In the cross-national dimension, absence of trust deters foreign investment and trade (Dearmont and Grier (2009, Guiso et al. 2005). The cross-border financial lending activities between domestic borrowers and foreign banks are characterized by server information asymmetry and significant transaction cost, which necessitate other means (e.g., social capital) to overcome the difficulty in

order to complete the exchanges (Ayyagari et al., 2010). In this paper, we hypothesize that social trust can facilitate the contracting process with foreign lenders and reduce the loan cost of borrowing companies.

We collect data from Dealscan for all syndicated loans granted to firms in China during the period from 1998-2013. We then match our sample loan facilities with China Stock Market and Accounting Research database (CSMAR) to ensure we have detailed financial information for borrowing companies. We follow recent studies (Ang et al., 2014; Hasan et al., 2015; Wu et al., 2014), and measure social trust according to the China General Social Survey. Our measures of social trust are based on opinions of managers and individuals regarding their willingness to deal with strangers. In the current study, we focus on a single emerging country, China, and explore the variation in social trust across different regions. This sample procedure possesses methodological advantages in the sense that we are able to utilize intra-country information and ensure the general uniformity of legal and institutional environment (Sekaran, 1983).

Our empirical analysis contains three important parts. First, consistent with our conjecture, the empirical analysis indicates that firms located in regions with higher social trust score receive lower cost of loans. This finding is robust to various measures of social trust. We further examine the effect of social trust on other fee terms in syndicated loan contracts. We document that borrowing firms located in regions with higher social trust score pay lower fees, and particularly the upfront fee to complete the transaction. Taken as a whole, social capital indeed helps to reduce the transaction costs because of information asymmetry and facilitate efficient contracting (Guiso et al., 2004). Second, we investigate the effect of social trust on other nonpricing terms in loan contracts. Controlling for the joint determinant of price and nonpricing contractual terms, our results reveal that social trust is negative correlated with the

usage of collateral but is insignificantly correlated with loan maturity. Third and last, we further interact measures of institutional environment with our measures of social trust and test the interactive effect on loan pricing. Specifically, we assess several important aspects of the formal institutions including rule of law, financial development and property rights protection.¹

We report that foreign banks may less rely on social trust to price loans when there exists stronger formal institutions (Ayyagari et al., 2010; Cull and Xu, 2005; Zeng and Zhang, 2010).

The rest of the paper is organized as follows. Section 2 briefly reviews related literature. Section 3 details the data, sample and measures. Section 4 reports results of our empirical analysis. Section 5 summarize and concludes.

2. Related Literature

Cross-border bank lending activities have been increasing sharply for the past two decades (Haas and Horen, 2013). A significant portion of such lending activities is conducted in the form of syndicated loans, which have gradually developed into an important source of funding for firms around the world (Houston et al., 2007). In a typical syndicated loan contract, a group of financial institutions provides credit to an individual borrower. Lenders participate in loan syndications to limit their risk exposure due to concentrated lending portfolios. Moreover, cross-border lending allows lenders, larger or small, to access borrowers across countries to further diversify their lending portfolios. However, although the syndicated loan market operates on a global scale, this market is far from being fully integrated (Carey and Nini, 2007; Houston et al., 2007). Empirical research (Carey and Nini, 2007) has documented that interest rate

¹ Conceptually, social trust and legal and institutional development could be substitutes or complements (Stiglitz 1999).

spreads on syndicated loans differ significantly across different regions, which is referred as “syndicated loan pricing puzzle” (Houston et al., 2007).

Existing literature intends to explain the syndicated loan pricing puzzle because it is important for borrowing firms, lending banks and policy makers. Banks are in the business of providing credits to “risky and hard-to-value” firms (Strahan, 1999). Among a variety of factors determining loan price, lenders are most concerned about the borrower’s credit risk and business risk, and invest in costly information production in order to price loans. However, “lending at distance” imposes significant information costs on cross-border lending activities (Mian, 2006). In syndicated loans, lending banks utilize a combination of “soft” and “hard” information to make lending decision and design loan contractual terms (Mian, 2006; Petersen and Rajan, 1994; Stein, 2002). *Ex ante*, physical distance makes it difficult for lenders to collect soft information about the borrowers’ creditworthiness, which results in high negotiation costs (Degryse and Ongena, 2004; Haas and Horen, 2013). *Ex post*, foreign banks may have difficulty to enforce the covenants and renegotiate the loan contracts in the event of default. In the absence of barriers to prevent the production and transmission of firm specific information, syndicated loan market will be international integrated and free of any price differences. Quite a few studies point out that cross-country differences in financial market development, regulation, and legal institutions are responsible for the puzzle because such differences limit banks’ capability of obtaining accurate information, both *ex ante* and *ex post*, from their borrowing firms in distant lending activities (Houston et al., 2007; Mian, 2006).

Facing information barriers across markets, foreign banks resort to different means to address this issue. For example, foreign banks may cooperate with domestic banks to improve the information production (Haas and Horen, 2013). Foreign banks may adjust their assessment

of information for new or existing borrowers according to the local institutional environment (Qian and Strahan, 2007). Therefore, in the current study, we do not intend to add to the discussion on what factors explain the syndicated loan price differences across countries. Instead, we extend the existing literature exploring what mechanism helps foreign banks to mitigate the information costs when lending at distance across country borders. In particular, we consider the situation when foreign banks give loans to firms in China, and pay special attention to *social capital* as a mitigating factor in facilitating the lending activities (Ang et al., 2014).

Social capital can be defined as “a propensity of people in a society to cooperate to produce socially efficient outcomes and to avoid inefficient non-cooperative traps such as that in the prisoner’s dilemma” (La Porta et al., 1997). Market transactions and exchanges depend on cooperation and trust, particularly when participants face severe asymmetric information and only have incomplete information. Even if there is proactive enforcement of formal institutions by regulatory agencies, neither laws nor the government can safeguard against the temptation to engage in opportunistic behavior that may result in the failure of efficient resource allocation in the financial market. Social capital can effectively help mitigate market failures due to the difficulty in contract enforcement (Helliwell and Putnam, 1995; Zak and Knack, 2001). Existing literature (Helliwell and Putnam, 1995) posits that people in regions with high social capital are believed to be trustworthy. For example, Jha (2013) reports that social capital is positively correlated with the quality of financial reporting. Social trust, a major component of social capital, can facilitate economic growth (Algan and Cahuc, 2010) mainly because it changes the incentives of economic agents and creates a cooperative environment that thus enhances the quality of governance and reduces the barriers of investment or trade. In fact, according to Ahlerup et al. (2009) trust is a substitute for ineffective formal institutions or an environment where court enforcement is limited

(Annen, 2013). Stiglitz (1999) terms social trust as substitutes or complements to legal and institutional development.

China is ideal for our investigation of the impact of social trust on cross-border syndicated loans. The China we know today stems from large number of city states ruled by different landlords/kings over the centuries. It is an ethnically and culturally diverse country, with multiple languages, hundreds of different of dialects, unique history, vast philosophical differences across regions and regimes. There are more cultural differences across China's provinces than there are cultural differences across Europe (Ang et al 2014!). In China, the history of the impact of social trust on economic development in China may go back as far as Ming Dynasty (Hasan et al., 2009b). The development of social trust has evolved over time and has become an important component of social capital. While legal institutions are generally uniform across different regions in China, there exists significant variation in terms of social trust at provincial level (Ang et al., 2014; Hasan et al., 2015; Wu et al., 2014). Several recent studies have explored the variation in social capital cross different provinces, and shown that social trust promotes the usage of trade credit and encourages investment in R&D by Chinese firms (Ang et al., 2014; Wu et al., 2014). Building on the existing literature, we investigate whether and to what extent social capital may affect firms' cost of borrowing and other nonpricing contractual terms when the fund providers are foreign banks.

3. Data and Sample

3.1. Sample Selection

In this paper, we form our sample based on from Loan Pricing Corporation's Dealscan database (LPC). We start with all syndicated loans granted to Chinese firms, and then use a

name-matching algorithm to match Dealscan firms with firms in the China Stock Market and Accounting Research database (CSMAR). We manually check the matched sample to ensure its accuracy. Because one borrower may obtain multiple loans with different contractual terms, our unit of observation is a facility. We retrieve detailed information on individual facilities from LPD Dealscan database including loan spreads, maturity, collateral, covenants, performance pricing, loan types, and loan purposes. In addition, CSMAR provides a good source of information from firm balance sheet and income statement for public traded firms in China. We require our sample firms to have complete financial information, and we exclude utility firms and firms in the financial services industry because their operation are highly regulated. Our sampling procedure yields 177 syndicated loan facilities granted to 91 unique firms located in 24 unique provinces during the time span from 1998 to 2013.

3.1. Measures

In the current study, we intend to investigate whether and to what extent social trust as a form of social capital may affect cross-border loan contracts including both pricing and nonpricing contractual terms. Therefore, our main dependent measure is the loan price, all-in-spread-drawn (AISD), measured as the mark-up over LIBOR. We also pay attention of other fees in the loan contracts (Berg et al., 2015), and measure upfront fee as the cost of completing the deal of a syndicated loan. Commitment fee is the cost for the unused amount of loan commitments, whereas facility fee is paid upon the entire committed amount. We sum up commitment fee and facility fee to measure the cost of all-in-spread-undrawn (AISU). In addition, we focus on loan maturity (logged) and the usage of collateral to capture nonpricing contractual features (Bharath et al., 2011).

Our main explanatory variable is social trust, which is based on the China General Social Survey (henceforth CGSS) conducted in 2013. In the survey, questionnaires were sent to more than 15,000 managers from companies located in 31 provinces (response = 4,600). The level of provincial trustworthiness was assessed from managers' responses to the question: "According to your experience, could you list in order the top five provinces where the enterprises are most trustworthy?" There are five choices for this question: "do not trust greatly"=1; "do not trust"=2; "neutral"=3; "trust" =4; and "trust greatly"=5. We calculate a provincial-level social trust measure, Trust1, by taking the average scores of answers to this question at the provincial level. Trust1 mainly captures the mutually trustworthiness among corporate managers for a particular province. We also retrieve information from 2013 CGSS to construct another measure of social trust, Trust2, based on the answers to the question "Do you trust strangers?" by residents from 28 provinces (Wu et al., 2014). Hence, Trust2 captures the general trustworthiness of strangers by residents in a particular province. We use Trust1 and Trust2 as our main measures of social trust throughout the paper. These two measures have been adopted to examine the economic consequences of social trust in various contexts such as foreign investment (Ang et al., 2014), trade credit (Wu et al., 2014) and capital structure (Zeng and Zhang, 2010).

Additionally, following Ang et al. (2014), we adopt blood donation per capita in a province as an alternative measure of social trust. In China, the "Blood Donation Law" clearly states that blood donation by healthy citizens is without compensation, which reflects the citizens' civism. Therefore, blood donation can be viewed as an essential part of social capital (Guiso et al., 2004) because it is not driven by monetary incentives but by social pressure and norms. We use blood donation as our third measure of social trust.

To test the interactive effects between social trust and other institutions, we construct several variables to gauge the institutional development at province-level. La Porta et al. (1998) stress the importance of legal rules because the quality of legal institutions determines how well investors are protected and therefore determines the cost of financing and plays a crucial role in firms growth and performance (Beck et al., 2003). We use an index constructed by National Economic Research Institute (NERI) as a broad proxy for legal institutions based on a large number of indicators measuring the legal and other institutions (Fan et al., 2011; Hasan et al., 2014). Specifically, rule of law is a composite index measuring the development of intermediary market, protection of producers' legitimate rights and interests, and the availability of accounting firms and law firms. Among the other elements of the indexes, we also adopt an index for the development of financial sector (Fan et al., 2011). We recognize the imperfection of the indexes by NERI because the scaling of the indexes is arbitrary and the sources of the actual components are not disclosed. Nonetheless, this is the best available information measuring the provincial level institutional development which we use in conjunction with our measure of social trust for the possible interactive effects on cost of borrowing by our sample firms. While the law of property rights protection is enacted at the national level in China, the perception and enforcement of property right protection may vary significantly across provinces because of local protectionism and the local quality of the legal institutions. We also measure the awareness of property rights by calculating the ratio of the number of domestic trademark applications to the number of firms for each province with the assumption that trademark applications reflect the strong intention in preserving and defending property rights (Hasan et al., 2009a). Data on domestic trademark applications were collected from the annual issues of *Almanac of China's Property Rights and the Yearbook of China's Industrial and Commercial Administrative*

Statistics (which provide data starting in 1998), annual provincial yearbooks, and the government-sponsored trademark website, *China Trademark Online*.

In the regression analysis, we control for a set of variables capturing various aspects of firm characteristics and loan characteristics. To ensure the accounting information is publicly available at the time of a loan origination, the borrowers' financials are measured at the year prior to the loan initiation. Specifically, we measure firm size as logged firm assets. Firm book leveraged is calculated as firm total debts including long-term debt and short-term debt over firm book assets. Return on assets (ROA) is measured as operating income before depreciation divided by firm book assets. To capture firm riskiness, we also calculate the profitability volatility as the standard deviation of ROA from year $t-2$ to year t . We measure sales growth as the percentage change of firm net sales from year $t-1$ to year t . Loan size is the logged facility amount. All nominal values are adjusted for inflation using year 1998 constant dollars.

3.2. Summary statistics

Table 1 presents the summary statistics and correlation matrix of our sample facilities.

[Insert Table 1 about here]

4. Results

In the current study, we empirically examine the effects of social trust on various loan contract features including both pricing and nonpricing terms. In all model specifications, we add industry fixed effects at 1-digit industry level of industry classification code for listed companies in China. We also control for loan purpose fixed effects to reflect the nature of corporate borrowing. Including industry fixed effects and loan purpose fixed effects help us to

control for the portion of loan contractual terms pertinent to a particular industry or a particular purpose of loan. In our sample, measures of social trust are time-invariant for a particular province. We make a reasonable assumption that social trust is quite stable over time in a region (Uslaner, 2002). As a result, all standard errors reported in the results are adjusted for heteroscedasticity and firm-level clustering because fixed effects estimation in panel data is infeasible.

4.1. Social trust and cost of bank loans

In this section, we relate our measure of social trust to the cost of bank loans (i.e., all-in-spread drawn or AISD) with commonly used controls, and report our findings in Table 2. Our main explanatory variables, social trust 1 and social trust 2 as detailed in the data and sample section, are the major component of social capital. In our analysis, we argue that social trust is more of a macro measure that is inherent in the local culture and less subject to the endogeneity issue. In column 1, we enter *Trust1* along with a set of control variables. The significant positive coefficients in the model specification indicate that firms located in provinces with higher social trust scores receive lower cost of loans granted by foreign banks. The economic significance of social trust of cost of borrowing is quite obvious. A one standard deviation increase in the level of *Trust1* can be translated into a decreasing of 18bps in AISD. Our finding reveals that foreign bank do factor in social trust in the pricing of riskiness of borrowers. Further, we partition our sample according to the presence of local partners in loan syndicates, and re-run our model specification in column 1. Strikingly, the effect of social trust on loan price is prominent for loan syndicates with local partners (column 2), but not in syndicated loans granted by purely foreign lenders (column 3). The results indicate that with local partners, loan syndicates can better interpret the effects of social trust and price the loans accordingly.

In columns 4 and 5, we enter *Trust2* and *Blood* as two alternative measures of social trust as detailed in Section 3.1, and repeat our analysis in column 1. We find consistent results using different measures of social trust. Regarding the other control variables, we generally find consistent results in line with existing literature (Bharath et al., 2007; Bharath et al., 2011; Coleman et al., 2006).

[Insert Table 2 about here]

4.2. *Social trust and fees in loan contracts*

In syndicated loan contracts, other fees represent a significant portion of total cost charged to borrowing firms (Berg et al., 2015). Therefore, we also investigate whether social trust is an important determinant for various fees in loan contracts. In particular, we focus on upfront fee and All-in-spread-undrawn (including facility fee and commitment fee). We report our results in Table 3. Columns 1-3 relate social trust measure to total fees, upfront fee and AISU, respectively. The results indicate that overall, firms located in provinces with higher social trust score pay lower fees. However, the significant reduction of fee is only prominent for upfront fee but not for AISU.

[Insert Table 3 about here]

4.3. *Social trust and nonpricing contractual terms*

In our analysis, we also consider the potential determining of social trust on nonpricing terms in loan contracts, and report our results in Table 4. Specifically, we consider the maturity of a particular loan facility and the usage of collateral in a loan contract. Following Bharath et al. (2011), we focus on *Trust1* and use a system of three equations to describe the structure of loan contracts.

$$AISD = f(Trust1, Maturity, Collateral, controls) \dots\dots\dots(1)$$

$$Collateral = f(Trust1, Maturity, controls) \dots\dots\dots(2)$$

$$Maturity = f(Trust1, Collateral, controls) \dots\dots\dots(3)$$

As can be seen from the system of equations, we assume that the relationship between loan cost (i.e., AISD) and nonpricing terms (i.e., maturity and collateral) is unidirectional, whereas the relationship between maturity and collateral is bidirectional. In columns 1-3 of Table 4, we estimate the three model specifications separately, and in columns 4-6 of Table 4, we estimate the system of three equations through three-stage-least-square (3SLS) to allow for the joint determination of pricing and nonpricing terms in loan contracts. Note that *Collateral* is modeled by a linear probability model.

Given that collateral feature and maturity in loan contracts are endogeneously and jointly determined, we add blood donation (Blood) as an instrument to facilitate the identification of the system. Following existing literature, we also use the nongovernment organizations (NGOs) as one additional instrument in the 3SLS estimation. NGOs represents voluntary organizations that aim to address the unsatisfied societal needs and are a means to mitigate market and government failures (Wu et al., 2014). We measure the number of NGOs per million people for each province according to the information from the National NGO administration Bureau of China. We argue that NGOs is also an important component of social capital that fosters social trust (Chenhall et al., 2010).

We document that social trust does not affect the maturity of loan facilities. However, borrowing firms located in regions with higher social trust ratings are less likely to have collateral term in the loan contracts. In line with existing literature (Bharath et al., 2011), we

find that collateral feature is positively correlated with AISD and loan maturity ($p < 0.01$). Loan maturity is negatively correlated with AISD ($p < 0.05$) but positively correlated with collateral term ($p < 0.01$).

[Insert Table 4 about here]

4.4. Interactive effects of social trust and institutional development

In Table 5, we consider the interactive effects of social trust and other formal institutions on borrowing cost from foreign banks. In columns 1 to 3 of Table 5, we focus on the overall protection of producers' legitimate rights and interests (*rule of law*), development of financial market, and property rights (Hasan et al., 2009a), and interact our measure of social trust (*Trust1*) with these three dimensions of institutional development, respectively.

In column 1, we report that the first-order effect of rule of law on AISD is negative and significant. The coefficient of the interaction term between Trust 1 and rule of law is positive and significant. The finding indicates that the overall development of institutions helps the borrowing companies to obtain cheaper loans. Nonetheless, with a stronger legal environment in place, the effect of social trust of cost of debt is weakened. In other words, foreign banks give less weight for social trust when there exist strong form institutions. We repeat similar analysis for the development of financial markets (column 2) and protection of property rights (column 3), and find similar patterns.

[Insert Table 5 about here]

5. Summary and Conclusion

Our paper finds that social capital is an important determinant when foreign banks make lending decision of firms in China. Using a sample of syndicated loan facilities for which Chinese firms receive loans from foreign lenders, we document that firms located in higher social capital regions experience lower cost of loans made by foreign banks. In the regression analysis, we employ various model specifications and control a host of control variables capturing firm characteristics and loan characteristics, and report robust findings. In addition, we test the effects of social trust on other nonpricing terms of loan contracts based a system of equations capturing the joint determinant of loan contractual terms. We document that foreign banks are less likely to require collaterals for firms located in high social capital regions.

We believe our research contribute the existing literature in several ways. This study provides novel evidence that social trust is an important determinant in cross-border bank lending activities. While geographic distance and country borders impose significant information costs on capital flow, social trust can function as a mechanism to facilitate the contracting by reducing the transaction costs. Our paper also adds to the existing literature regarding the deficiency of institutional arrangements and economic growth in China. With less developed institutions, firms may resort to other informal intuitions (e.g., social trust) to pledge for external financing with better terms from foreign fund providers.

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Table 1. Summary statistics

Variable	N	Mean	St. Dev	Min	Max
All-in-spread-drawn (AISD)	177	34.89	89.23	0.05	550.00
Upfront fee	177	4.88	19.21	0.00	120.00
All-in-spread-undrawn (AISU)	177	2.85	8.98	0.00	50.00
Maturity (months)	177	66.57	53.99	12.00	276.00
Collateral	177	0.14	0.35	0.00	1.00
Trust1	177	4.56	0.98	1.45	5.40
Trust2	177	2.29	0.09	2.04	2.41
Blood	177	2.29	1.21	0.15	7.56
Loan size (logged)	177	18.15	2.23	1.23	23.69
firm size (logged)	177	24.26	2.38	20.29	30.18
Book leverage	177	0.23	0.14	0.02	0.67
ROA	177	0.04	0.05	-0.31	0.21
Profitability volatility	177	0.02	0.02	0.03	0.22
Sales growth	177	0.24	1.69	-0.24	5.26
Rule of law	177	1.40	0.96	0.34	2.89
Financial development	177	9.71	1.74	3.98	12.66
Property rights	177	1.03	0.40	0.17	1.51

Table 2: Social trust and cost of bank loans

Independent variables	Dependent variable: All-in-spread drawn (AISD)				
	Model 1	Model 2	Model 3	Model 4	Model 5
Trust1	-18.505** (8.684)	-21.042*** (8.213)	23.094 (44.042)		
Trust2				-164.090** (82.757)	
Blood					-13.491** (5.874)
Firm size	-8.182*** (2.858)	-30.368*** (8.625)	-26.883*** (7.714)	-6.548*** (2.145)	-8.08*** (2.473)
Book leverage	89.365** (45.066)	129.047*** (71.171)	687.598*** (208.476)	73.781** (34.034)	92.914** (41.857)
ROA	-182.414*** (57.063)	-199.167*** (56.671)	-191.557** (87.246)	-139.738*** (37.692)	-176.212*** (46.971)
Profitability volatility	27.415** (12.384)	123.891* (74.235)	87.036 (126.775)	62.434** (25.332)	31.607** (14.300)
Sales growth	1.044 (1.418)	-0.137 (3.995)	-108.330** (44.325)	1.562 (1.300)	0.798 (1.162)
Loan size	-2.254* (1.553)	-5.018** (2.414)	-8.348* (4.323)	-2.330* (1.445)	-2.040* (1.271)
Constant	-142.268 (144.946)	-462.783** (180.867)	115.846** (57.677)	-452.856* (261.605)	-190.869 (142.806)
Loan purpose fixe effects	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
clustered standard errors	Firm	Firm	Firm	Firm	Firm
Local partners in loan syndicate	NA	Yes	No	NA	NA
Observations	177	128	49	177	177
F-statistic	2.71**	2.82***	4.58***	3.74***	2.49**
Adjusted R-squared	0.1112	0.2185	0.083	0.0936	0.1047

* indicates p<0.10, two-tailed

** indicates p<0.05, two-tailed

*** indicates p<0.01, two-tailed

Table 3: Social trust and other fees in bank loan contracts

Independent variables	Dependent variable					
	Total fees (upfront fee+AISU)		Upfront fee		AISU (Commitment fee+facility fee)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Trust1	-1.396** (0.668)		-1.485*** (0.537)		1.089 (0.712)	
Trust2		-2.694** (1.342)		-6.354** (3.193)		1.049 (0.988)
Firm size	-1.349* (0.695)	-1.279* (0.678)	-1.240** (0.498)	-1.477*** (0.494)	-0.109 (0.424)	0.198 (0.405)
Book leverage	-5.894* (2.220)	-1.735* (0.954)	-3.483** (1.694)	-1.816* (0.121)	9.376 (5.867)	2.552 (5.947)
ROA	17.012 (23.004)	-1.094 (25.237)	13.786 (16.487)	16.057 (18.385)	3.226 (14.031)	-17.151 (15.078)
Profitability volatility	-67.758 (46.518)	-69.531 (46.513)	-23.910 (33.339)	-27.473 (33.884)	-43.848 (28.374)	-42.058 (27.789)
Sales growth	-0.726 (0.649)	-0.577 (0.652)	-0.493 (0.465)	-0.586 (0.475)	-0.233 (0.396)	0.009 (0.390)
Loan size	-0.101* (0.055)	-0.069* (0.046)	-0.038* (0.021)	-0.078* (0.033)	-0.063 (0.290)	0.009 (0.285)
Constant	39.415** (18.130)	17.156* (9.048)	29.314*** (12.994)	53.103* (28.446)	0.001 (11.058)	0.259 (13.329)
Loan purpose fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
clustered standard errors	Firm	Firm	Firm	Firm	Firm	Firm
Observations	177	177	177	178	177	177
F-statistic	3.43***	2.81***	2.49**	2.53**	2.74**	2.32**
Adjusted R-squared	0.0748	0.0636	0.0547	0.0612	0.0699	0.1027

* indicates $p < 0.10$, two-tailed

** indicates $p < 0.05$, two-tailed

*** indicates $p < 0.01$, two-tailed

Table 4: Social trust and non-pricing contractual terms

Independent variables	Dependent variable					
	OLS			3SLS		
	AISD Model 1	Maturity (logged) Model 2	Collateral Model 3	AISD Model 4	Maturity (logged) Model 5	Collateral Model 6
Trust1	-19.901** (9.599)	0.051 (0.057)	-0.039** (0.017)	-10.596** (4.716)	0.178 (0.110)	-0.091** (0.039)
Maturity (logged)	-9.991** (3.770)		0.143*** (0.037)	-244.194*** (52.116)		0.243** (0.112)
Collateral	20.256*** (8.219)	0.621*** (0.160)		103.702*** (41.559)	0.829*** (0.3412)	
Firm size	-7.029*** (1.382)	0.075** (0.031)	-0.070*** (0.014)	90.665*** (21.929)	0.362*** (0.064)	-0.060* (0.035)
Book leverage	28.327** (12.063)	1.276*** (0.461)	-0.793*** (0.218)	7.539 (19.385)	0.021 (0.102)	-0.070*** (0.021)
ROA	-134.653*** (57.667)	3.915*** (1.126)	-0.975* (0.556)	-224.835** (110.438)	1.509 (0.998)	-0.411** (0.226)
Profitability volatility	42.250* (25.638)	5.105** (2.329)	-1.204 (1.131)	1,130.098*** (356.017)	3.634** (1.547)	-0.206 (0.887)
Sales growth	0.616 (1.883)	0.013 (0.031)	-0.010 (0.015)	546.753 (595.636)	1.952 (3.144)	-1.170 (1.287)
Loan size	-6.005** (2.844)	0.263*** (0.042)	-0.007 (0.023)	-4.195 (6.779)	0.014* (0.007)	-0.016 (0.015)
Constant	-133.792 (185.639)	-3.591*** (0.990)	1.504*** (0.480)	-1,020.195* (581.537)	-4.458 (2.717)	1.064 (1.177)
Loan purpose fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Clustered standard errors	Firm	Firm	Firm	Firm	Firm	Firm
Observations	177	177	177	177	177	177
F-statistic	2.768**	11.72***	5.08***			
Chi-square				31.13***	63.87***	25.03***
Adjusted R-squared	0.1100	0.3447	0.1699	0.1254	0.1611	0.0764

* indicates $p < 0.10$, two-tailed
 ** indicates $p < 0.05$, two-tailed
 *** indicates $p < 0.01$, two-tailed

Table 5: Interactive of social trust and institutional development on loan pricing

Independent variables	Dependent variable: All-in-spread-drawn (AISD)		
	Model 1	Model 2	Model 3
Trust1	-54.65** (23.370)	-60.845*** (20.560)	-43.491** (17.874)
Rule of law	-32.428*** (11.422)		
Trust1 × Rule of law	30.124** (14.374)		
Financial development		-12.208* (6.871)	
Trust1 × Financial development		-3.897** (1.814)	
Property rights			-157.847*** (47.457)
Trust1 × Property rights			30.173* (17.425)
Firm size	9.564 (8.429)	3.005 (13.121)	4.298 (7.127)
Book leverage	39.526 (71.611)	7.054 (134.737)	75.113 (76.767)
ROA	-95.556** (41.647)	-112.853** (46.297)	-169.944*** (44.059)
Profitability volatility	12.170 (39.281)	22.184 (49.577)	14.904 (23.437)
Sales growth	2.319 (2.363)	1.985 (2.297)	0.900 (1.399)
Loan size	-4.737** (2.155)	-3.262* (1.881)	-0.837 (2.290)
Constant	30.056 (234.952)	137.987 (323.825)	83.325 (203.047)
Loan purpose fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
clustered standard errors	Firm	Firm	Firm
Observations	177	177	177
F-statistic	3.19**	5.23***	4.93***
Adjusted R-squared	0.1287	0.0945	0.1639

* indicates $p < 0.10$, two-tailed

** indicates $p < 0.05$, two-tailed

*** indicates $p < 0.01$, two-tailed