Government connections and credit access around the world:

Evidence from discouraged borrowers

Abstract

Motivated by the international business literature that examines the interactions between organizations, corruption, and political forces, we examine whether and how government connections affect small and medium-sized enterprises' (SMEs) credit access around the world. Using a sample of SMEs across 30 developing countries, we show that SMEs with government connections are significantly less likely to be discouraged from approaching banks for a loan as compared to SMEs without connections. However, connected SMEs do not receive preferential lending from banks. Moreover, the nature of this effect depends on the institutional setting. Specifically, the effect becomes stronger in countries with high levels of corruption, suggesting that government connections are substitutes for poorly functioning formal institutions. Our findings have important implications for policies targeted at reducing corruption, improving access to financing, facilitating entrepreneurship, and attracting foreign investment.

INTRODUCTION

Lack of access to external financing is one of the most significant barriers to entrepreneurship in many countries around the world (OECD, 2014). Data from the World Bank indicate that one in every two small and medium-sized enterprises (SMEs) were credit constrained in 2008. An SME can become credit constrained if its loan application is rejected or when it is discouraged from seeking external finance in the first instance. While there is an extensive body of literature that examines the determinants and consequences of credit rejection (e.g., Berg, 2018), little is known about SMEs that need financing but do not apply for fear of rejection. There are strong theoretical grounds for investigating credit discouragement given that it may lead creditworthy SMEs to forego credit, which has potentially negative implications for their future growth, innovation, and job creation.

Although credit discouragement is a worldwide phenomenon, it is particularly acute in developing economies since their financial systems are often plagued with severe corruption and weak contract enforcement rights (e.g., McMillan & Woodruff, 2002). As a result, many small business owners do not have confidence in their country's financial system and believe that the costs of undergoing a corrupted loan application process would outweigh the benefits of receiving one (Kon & Storey, 2003).

Building on prior international business (IB) research on the interactions between organizations, corruption, and political forces, we study whether and how government connections affect SMEs' credit access around the world. The key innovation of our paper is to observe the precise reason behind a firm's credit constraint, i.e., whether its loan application is denied or whether it does not apply for a loan for fear of rejection. This allows us to shed light on the mechanism through which government connections affect credit access. Our findings have important implications for policies targeted at reducing corruption, improving access to financing, facilitating entrepreneurship, and attracting foreign investment (Ault, 2016).

We consider a firm to have government connections if it has secured or attempted to secure a contract from the government. When firms have contracts with the government or attempt to get one, they would need to frequently interact with and maintain close ties with various government entities and are also exposed to government procedures and the policymaking process. Therefore, these firms

have close connections with the government. This measure focuses on a direct, realized outcome of government connections, and can also be applied consistently across countries.

We use detailed firm-level survey data from the Business Environment and Enterprise Performance Survey (BEEPS) that was jointly conducted by the European Bank for Reconstruction and Development and the World Bank. Our sample covers SMEs surveyed in BEEPS IV (2008) and BEEPS V (2013) across 30 countries in Eastern Europe and Central Asia. Countries in this region are characterized by a high degree of corruption, meaning that individuals and businesses are less likely to have their legal rights protected and have less confidence in the legal and financial systems. As a result, informal relationships are likely to flourish and have a strong influence on how business activities are conducted (Peterson, 2016).

We find that SMEs with government connections are significantly less likely to be discouraged from approaching banks for a loan compared to SMEs without government connections. However, connected SMEs do not receive preferential lending from banks; rather, they experience a similar loan rejection rate and have similar loan conditions (in terms of loan duration, collateral requirements, and interest rates) as SMEs without such connections. Overall, our results are consistent with the idea that having government connections affords SMEs more confidence to approach banks for a loan. Because firms with government connections have exceptionally direct exposure to the law and the policymaking process (Michelson, 2006), they would have a better awareness of their legal rights and a better understanding of the loan application procedures. This superior knowledge of the systems allows firms to overcome the obstacles associated with corrupt environments and empower them to seek external bank credits.

Our specification includes country*industry, country*year, and industry*year fixed effects. This ensures that our results are not driven by omitted variables specific to an industry or country, such as access to debt markets, government funding, or investment opportunities. The internet appendices display additional analyses that further support a causal link between government connections and credit discouragement. For instance, we show that our results are robust to a subsample of firms that experience changes in government connections as a result of exogenous political power turnovers. We also rule out the interpretation that our results are driven by firms

undertaking projects with high social values and low private returns. We also find suggestive evidence that firms with government connections anticipate a higher performance in the future. This is consistent with the idea that government connections lead to a more efficient allocation of bank credit rather than causing over-lending by banks (Bonnet, Cieply & Dejardin, 2016).

We conduct additional tests to further understand the economic mechanisms of the results. First, we examine how country-level corruption moderates the credit encouragement effect of government connections. In line with the idea that connections ease the obstacles associated with corruption, we find that the effect of government connections is more salient in countries that tolerate corruption. Our results are consistent with and extend a key institutional proposition: while it is the combination of formal and informal institutional frameworks that shapes strategic choices (North, 1990), in situations where formal institutions are weak, informal relationships play a larger role in driving firm behavior. Second, we find that the credit encouragement effect of government connections is stronger when the firm has access to local state-owned banks. Because state-owned banks share similar bureaucratic procedures with other government entities, firms with knowledge of the systems in place are more confident in transacting with state-owned banks. Finally, we find that the credit encouragement effect is stronger for domestic firms than for foreign firms. Thus, even when foreign firms have government connections, they are still deterred from approaching banks for a loan.

Our study makes several important contributions to the IB literature on the interactions between organizations, corruption, and politics (e.g., Chen, Ding & Kim, 2010; Sojli & Tham, 2017). First, by observing the precise reasons for a firm's credit constraint and by eliminating country-specific institutional idiosyncrasy through a multi-country study, our study sheds light on the economic mechanisms through which government connections affect SMEs' credit access around the world. We find that superior know-how and familiarity with the systems give SMEs with connections to the government more confidence to seek external bank financing.

Second, we take advantage of our cross-country setting to demonstrate how country-level corruption interacts with firm-level connections in an international setting. Our results are consistent with and extend prior IB research which shows that country-level corruption moderates the effects of political connections on analyst forecast accuracy (Chen et al., 2010) and merger and acquisition

performance (Brockman, Rui & Zou, 2013). Third, we also contribute by demonstrating that the credit encouragement effect of government connections is stronger for domestic firms than for foreign firms. This finding has important implications for IB because it suggests that the host country's corrupt institutional environments have such a strong deterrent effect on foreign firms that the positive effect of government connections is nullified. Therefore, to reduce the transaction costs faced by foreign firms when they enter host markets, more policy efforts are needed to reduce corruption, and to improve the quality and accountability of governance. Finally, we also contribute to the nascent literature on credit discouragement. Most previous studies rely on a single country setting. For instance, Levenson and Willard (2000) study U.S. firms and Brown, Liñares-Zegarra, and Wilson (2018) focus on UK firms. Our paper offers some of the first cross-country evidence and hence have more general implications for business practices in a global setting across multiple countries.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

There is a growing body of literature that examines the interactions between organizations, institutional environments, and political forces. Although there are several pathways through which firms may interact with politics, "know-who" and "know-how" are the two most widely discussed channels in the literature (c.f. Ang & Jia, 2014). On the perverse end, the "know-who" channel postulates that firms use their political advantage to exert influence and extract private benefits. On the positive end, the "know-how" channel predicts that connections with the government give firms exceptionally direct exposure to the inner workings of the government and the policymaking process. This superior knowledge could empower firms to navigate new and complex institutions and subsequently affect firm outcomes (Michelson, 2006).

While theories suggest that both channels are important, most empirical studies, however, focus on the "know-who" channel. For instance, Khwaja and Mian (2005) show that politically connected firms in Pakistan pressurize lenders into giving them preferential lending. This leads to an inefficient allocation of bank credits, where political loans are 50% more likely to become delinquent. Along the same line, Duchin and Sosyura (2012) find that firms use their political influence to receive preferential regulatory treatment and that investments in politically connected firms underperform

those in unconnected firms. Boubakri, Mansi and Saffar (2013) argue that politically connected firms are insulated from bankruptcy protection, which enable them to engage in more risk-taking activities.

There is much less empirical evidence on the "know-how" channel, despite compelling theoretical underpinning. Our paper attempts to fill this gap in the literature. Specifically, we focus on SMEs in developing countries and study whether—and how—government connections affect SMEs' credit access. Consistent with the "know-how" channel, we hypothesize that government connections could afford SMEs more confidence to approach banks for a loan. SMEs in developing countries face several obstacles to obtaining access to bank loans. They often lack the experience to navigate the loan application process and thus struggle to convey their creditability to potential lenders (Berger & Udell, 1998). Furthermore, the financial systems in developing countries are often plagued by severe corruption and weak contract enforcement rights (McMillan & Woodruff, 2002), causing many SMEs to enact self-imposed credit constraints for fear of rejection. Because firms with government connections have exceptionally direct exposure to the law and the policymaking process (Michelson, 2006), they would have a better awareness of their legal rights and a better understanding of the loan application procedures. [i] This superior knowledge of the systems could allow firms to overcome the obstacles associated with corrupt environments and empower them to seek external bank credits.

To empirically test for this hypothesis, we take advantage of our survey data, which allow us to observe the underlying reasons for a firm's credit constraint based on whether it experiences rejection when applying for a loan or whether it is discouraged from applying for a loan in the first place. If connections to the government allow firms to become more familiar with and have more insider knowledge of the financial system, they should be empowered to approach banks for a loan and should thus exhibit a lower likelihood of facing credit discouragement. In contrast, the "know-how" channel predicts that government connections should not affect the likelihood of loan rejection.

Hypothesis 1: Government connected firms exhibit a lower likelihood of credit discouragement but not rejection.

Our next set of hypotheses is related to a firm's institutional environments. This hypothesis is based on North's (1990) political economy of institutions and economic behavior, which emphasizes

the interactions between institutions and organizations. North (1990) argues that the success of organizations over time is not only determined by their skills but is also shaped by the governance structure of the broader environment, where the institutional environments legitimize a firm's organizational structures and practices (Meyer & Scott, 1983). The IB literature has highlighted the importance of a country's institutional environments in shaping firms' political and economic activities. For instance, Chen et al. (2010) find that the adverse effects of political connections on analyst forecast accuracy is stronger in countries with weaker institutions.

Motivated by this literature, we take advantage of our cross-country setting to study how government connections affect credit access under different institutional frameworks. We focus on one of the most important aspects of a country's institutional environments—its corruption levels. Because corruption increases the information asymmetry between firms and institutions (e.g., Chen et al., 2010), government connections can reduce such information asymmetry and relieve the obstacles associated with corruption. We hypothesize that the effect of government connections on credit discouragement is stronger in countries that tolerate corruption.

Hypothesis 2: The effect of government connections on credit discouragement is stronger in countries with a higher level of corruption.

Finally, we examine a hypothesis related to foreign versus domestic firms. IB scholars, policymakers, and practitioners have been interested in how to encourage foreign direct investments by reducing the transaction costs incurred by foreign firms when they enter a foreign market. Therefore, we examine whether government connections are effective in giving foreign firms the confidence to approach local banks for a loan. Because foreign firms are less embedded in the host country's institutional environments (Zaheer, 1995), government connections may have a less pronounced impact on foreign firms. Consistent with this, Michelacci and Silva (2007) find that there are disproportionally more local entrepreneurs because locals are better at exploiting their personal networks to contact customers and suppliers, recruit local workers, and capture the financial opportunities available locally. If this is true, then government connections should play a less important role for foreign firms as compared to their domestic competitors. Furthermore, because

governments in developing countries value foreign investments highly, they tend to give more support and pay more attention to foreign firms. This argument also implies that government connections would have a weaker encouragement effect on foreign firms.

Hypothesis 3: The effect of government connections on credit discouragement is stronger for domestic firms.

DATA AND MODEL

Sample and Descriptive Statistics

Our main source of data is BEEPS, which is a firm-level survey based on face-to-face interviews with managers of randomly selected SMEs. We use two BEEPS waves: one conducted in 2008 (11,920 firms) and one conducted in 2013 (15,880 firms).[ii] This results in an initial sample of 27,800 observations across 30 countries from Eastern Europe and Central Asia.[iii]

The majority of these countries are classified as developing countries according to the International Monetary Fund (IMF) (2018).[iv] As compared to fully developed economies, developing countries are characterized by a higher degree of corruption and a weaker rule of law. In these countries, individuals and businesses are less likely to have their legal rights protected and have less trust in the legal and financial systems in place. As a result, informal relationships are likely to flourish and have a strong influence on how business activities are conducted (Peterson, 2016). Furthermore, the countries in this region are also experiencing a radical switch from central planning to market competition and increased industrialization (Svejnar, 2002), which poses challenges to companies in response to organizational and institutional changes. These societal quasi-experiments provide an appealing setting in which to study the interactions between political forces, informal institutions, and corporate policies.

Measuring SMEs' Credit Access

To construct our measures of a firm's credit demand, credit constraints, and its attitudes toward applying for bank loans, we use survey answers to the following three BEEPS questions: K16 "*Did the establishment apply for any loans or lines of credit in the last fiscal year?*"; K17 "*What was the*

main reason for the establishment not applying for any lines of credit or loans in the last fiscal year?"; and K18a "*In the last fiscal year, did this establishment apply for any new loans or new credit lines that were rejected?*"

We first distinguish between firms with and without a demand for bank credit. Firms that answer "*Do not need a loan*" to K17 are classified as having no demand for bank credit. Otherwise, they are classified as having credit demand. Among firms with credit demand, we further classify them into being credit constrained versus unconstrained. Unconstrained firms are those that apply for loans and get accepted (they answer "*Yes*" to K16 and "*No*" to K18a). Otherwise, they are considered to be credit constrained.

We then classify credit constrained firms into rejected firms or discouraged firms.[v] Rejected firms are those that applied for loans but got rejected (answered "*Yes*" to K16 and "*Yes*" to K18a). Discouraged firms are those that enact self-imposed credit constraints for fear of rejection, i.e., firms that did not apply for loans because it "*did not think it would be approved*" (K17). Internet Appendix IA1 summarizes our sample construction. Our initial sample consists of 27,800 observations. After we exclude firms with missing values and firms without credit need, our final sample consists of 7,964 observations, among which 155 firms are discouraged from seeking a bank loan while 1,784 firms are rejected when applying for a loan. The proportion of firms discouraged from borrowing is 2%, which is similar to the one reported in Cowling et al. (2016) and is consistent with our conservative measure of discouraged borrowers.

Measuring Government Connections

To capture an SME's connections to the government, we utilize BEEPS question J6a: "*Over the last year, has this establishment secured or attempted to secure a government contract?*" Firms that answer "yes" are classified as having government connections. When firms have contracts with the government or attempt to get one, they would need to frequently interact with and maintain close ties with various government entities and are also exposed to government procedures and the policymaking process. Therefore, these firms are considered to have close connections with the government.

This measure relies on a direct, realized outcome of government connections, and can also be applied consistently across countries. By focusing on a realized outcome of government connections, we can capture the indirect ties that are formed through networks of family, relatives, and friends. Given that indirect networks represent the bulk of an SME's connections to the government and are often unobservable to researchers, this is a key advantage of our measure.

Internet Appendix IA2 reports the summary statistics for the key variables across countries. In our sample, 26% of firms have connections to the government. There is also substantial variation across countries. Government connections are more common in countries like Estonia, Latvia, Mongolia, and Slovenia, where 36.9% of firms have government connections. At the other end of the spectrum, only 11.2% of firms in Hungary, Montenegro, Serbia, and Slovakia are connected. Internet Appendix IA2 also provides a detailed breakdown of the proportion of government connected and unconnected firms that are discouraged and rejected across countries, firm size brackets, and sectors.[vi] Besides these cross-country variations, there is also significant variation across firms within the same country.

Research Design

To investigate the link between a firm's government connections and its credit access, we estimate the following model:

$$Credit\ Access_{icst} = \alpha_{cs} + \alpha_{st} + \alpha_{ct} + \beta * Government\ Connections_{icst} + \gamma X_{icst} + \varepsilon_{icst} \qquad (1)$$

for firm i operating in country c in industry s in year t. $Credit\ Access_{icst}$ measures whether a firm is *Credit Discouraged* and whether it is *Credit Rejected*. $Government\ Connections_{icst}$ is a dummy variable that equals to one if the firm has secured or attempted to secure government contracts last year. We use a probit model to estimate regressions where the dependent variable is a binary variable.

We include a set of control variables, X_{icst}, that have been shown by prior studies to affect an SME's credit rejection and discouragement. We include *Firm Size* [vii] (the number of permanent full-time employees) and *Firm Age* (the age of the firm since establishment) to account for the fact that

smaller and younger firms are more likely to be discouraged and rejected. Furthermore, because profitable firms are less likely to be credit constrained, we control for firm performance using *Past Growth* (sales growth of the firm over the last three years).

Furthermore, Kon and Storey (2003) argue that informally opaque firms are more likely to be discouraged because these firms are concerned about potential screening errors from the bank. Therefore, we include several variables that could capture firm transparency: *Audited Firm* (whether the firm's financial statements are audited by an external auditor), *Holding Firm* (whether the firm is under a holding company structure), *Publicly Listed Firm* (whether the firm is a publicly listed firm), *Sole Proprietorship* (whether the firm is a sole proprietorship), *Foreign Firm* (whether the firm is owned by more than 50% of foreign investors), and *Export Firm (*whether the firm's sales include exports). We also control for *State-Owned Firm* (whether the firm is a state-owned firm), *Female Managed Firm* (whether the firm is managed by a female entrepreneur)*, Government Subsidy Firm* (whether the firm obtains any subsidy from the government), and *Informal Competition* (whether the firm competes again unregistered or informal firms). Definitions of all variables are provided in Internet Appendix IA3.

Our main specification includes country*industry, country*year, and industry*year fixed effects.[viii] This allows us to compare credit access of firms that operate in the same country in the same industry, while controlling for time-varying country and industry characteristics. This ensures that our results are not driven by omitted variables specific to a given industry in a given country, such as access to debt markets, government funding, investment opportunities, or the relative importance of the industry to local economies.

[Insert Table 1 around here]

Table 1 provides summary statistics for all variables included in the paper. The average firm in our sample has 94 employees and is 17 years of age. Furthermore, 10% of firms in the sample have one owner, 10% are publicly listed, 47% have their financial statements audited, and 18% are run by a female manager. Table 1 also reports summary statistics for connected and unconnected firms. We

observe that the incidence of credit discouragement is significantly lower for firms with government connections than for those without connections. In contrast, the loan rejection rate is similar across the two groups of firms. Furthermore, consistent with the statistics reported in prior studies (e.g., Chen et al. 2010; Hung, Kim & Li, 2018), Table 1 indicates that connected firms are on average older, larger, and are more likely to have their financial statements audited. We control for these differences in all regression specifications.

GOVERNMENT CONNECTIONS AND CREDIT ACCESS

Baseline Results

Table 2 displays the results of the regressions we run to examine the impact of government connections on the incidence of credit discouragement and credit rejection. We follow the editorial guidelines set out by Meyer, van Witteloostuijn and Beugelsdijk (2017) to report the statistical results. Standard errors clustered at the firm-level are reported in square brackets and the 95% confidence interval for the main explanatory variables are reported in parentheses.

[Insert Table 2 around here]

The dependent variable in Columns (1)–(3) is *Credit Discouraged*, a dummy indicating whether the firm is discouraged from applying for a bank loan out of rejection fear. The coefficients on *Government Connections* are negative, statistically significant (p-value < 0.016), and have stable magnitudes across specifications. The marginal effect in Column (3) indicates that firms with government connections are 44% (= 0.88% / 2.0%) less likely to be credit discouraged as compared to firms without government connections. This is an economically substantial effect and is comparable to those of other firm-level characteristics, such as whether a firm has its financial statement audited or firms that receive government subsidies.[ix]

The dependent variable in Columns (4)–(6) is *Credit Discouraged*, a dummy indicating whether the firm has its loan application rejected. Across the specifications, the coefficients on *Government Connections* are negative but not statistically significant (p-value = 0.84). In addition, the

marginal effect in Column (6) indicates a very small economic effect of government connections on the incidence of credit rejection. Overall, our results indicate that while having government connections give SMEs more confidence to seek bank loans, connections do not significantly improve the likelihood that an SME will get its loan application approved.

Loan Terms

Next, we examine whether SMEs with government connections enjoy more favorable loan terms from lenders. We re-estimate Equation (1) using three loan terms as dependent variables: *Duration,* the number of months between loan origination date and maturity date; *Collateral*, a dummy that equals one if there is a collateral requirement and zero otherwise; and *Interest Rate,* the nominal interest rate (in percent) charged on the loans or lines of credit. These loan terms are primarily determined by lenders, which allows us to isolate a borrower's preferences from a lender's preferences. All regressions include our full set of fixed effects and control variables, as in Equation (1). Furthermore, as loan terms are simultaneously determined, we also control for other loan terms in all models.

[Insert Table 3 around here]

As shown in Table 3, the coefficients on *Government Connections* are 2.310 (p-value=0.567), 0.004 (p-value=0.738), and -0.148 (p-value=0.593) for the regressions on *Duration, Collateral,* and *Interest Rate*, respectively. As none of the coefficients are statistically significant, this indicates that lenders do not give favorable loan terms to connected firms. Thus, while SMEs with government connections are more confident in approaching banks for a loan, they do not receive preferential treatment from banks (either in terms of approval likelihood or favorable loan terms).

Overall, our results are consistent with the "know-how" channel that insider knowledge of and familiarity with the system give government connected SMEs more confidence to approach banks for a loan. This paints a different picture to those presented in prior studies (e.g., Khwaja & Mian, 2005) which find that politically connected firms use their political influence to pressurize bank employees into giving them preferential loan terms. Unlike prior works which focus on large firms,

our sample consists of SMEs in developing countries with little or no experience navigating complex and new institutions. Our findings indicate that government connections give SMEs the knowledge necessary to confidently navigate the loan application process.

Addressing Endogeneity

In the internet appendices, we present various tests to address endogeneity concerns. In Internet Appendices IA5 and IA6, we follow Hung et al. (2018) and use elections that result in political power turnover (when the incumbent political party loses control over the government) as an exogenous shock to a firm's government connections. Consistent with having government connections matters to a firm's attitudes toward borrowing, we find that the effect of government connections is more salient among firms that experience an exogenous change in their connection status as a result of political power turnovers.

Internet Appendix IA7 shows that our results are robust to a Heckman (1979) two-step procedure that accounts for a possible selection concern that we only observe the credit access of firms with a positive demand for loans. In Internet Appendix IA8, we perform the analysis on a one-to-one propensity score matched sample of government firms to non-connected firms. This process removes all observable differences (including size, performance, and transparency) between firms with and without connections. Robust results suggest that our results are not driven by omitted firm-level characteristics. Internet Appendix IA9 present various other robustness and sensitivity tests. In Internet Appendix IA10, we address the "social lending" interpretation that firms with government connections could be more likely to pursue projects with high social values and, because of the social values of their projects, these firms receive more funding from the bank. We find that our results are robust when we restrict the sample to firms that are *not* likely to receive social lending, i.e., private firms, firms operating in sectors where social lending is less likely, firms that do not receive any government subsidy, and firms facing informal competition.

ADDITIONAL ANALYSES

Having found that government connections afford SMEs more confidence to approach banks for a

loan, we next take advantage of our cross-country setting to test hypothesis H2 on the moderating role of country-level corruption. To measure the level of corruption, we follow Brockman et al. (2013) and use Transparency International's Corruption Perceptions Index (CPI). This is an aggregate indicator that ranks countries based on the perceived levels of corruption determined by expert assessments and opinion surveys. The index ranges from 0 to 100, with smaller values indicating higher levels of corruption. We create a dummy variable—*Corrupted Country*—which equals one if the CPI index is below 50 and zero otherwise. To test our hypothesis, we regress *Credit Discouraged* and *Credit Rejected* on the interaction between *Corrupted Country* and *Government Connections*.

[Insert Table 4 around here]

Panel A of Table 4 displays the results. In the credit discouragement regression (Column (1)), the coefficient on the interaction term *Corrupted Country*Government Connections* is negative and highly significant (p-value = 0.033). This indicates that the credit encouragement effect of government connections is significantly stronger in countries with high levels of corruption. In contrast, in the credit rejection regression (Column (2)), the coefficient on the interaction term is negative but not statistically significant (p-value = 0.311). Thus, government connected SMEs do not receive preferential lending from banks even in countries with high levels of corruption. Overall, our results extend a key institutional proposition: while it is the combination of formal and informal institutional frameworks that shapes strategic choices (North, 1990), in situations where formal institutions are weak, informal relationships play a larger role in driving firm behavior.

Next, we test hypothesis H3 on the differential effects of government connections between domestic and foreign SMEs. As before, we regress *Credit Discouraged* and *Credit Rejected* on the interaction between *Government Connections* and *Foreign Firms*—based on *w*hether foreign investors own more than 50% of the firm—and display the results in Panel B of Table 4. The results in Column (1) of Panel B indicate that the encouragement effects of government connections are statistically stronger for domestic firms than for foreign firms. Thus, even when foreign firms have connections with local governments, they are still deterred from approaching banks for a loan. Our finding is

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consistent with the work of Michelacci and Silva (2007), who argue that local entrepreneurs are better at capitalizing on the opportunities available locally. This finding has important implications for IB because it suggests that the host country's corrupt institutional environments have such a strong deterrent effect on foreign firms that the positive effect of government connections is nullified. Therefore, to reduce the transaction costs faced by foreign firms when they enter foreign markets, more policy efforts are needed to reduce corruption and improve the quality of governance and accountability. This would improve access to finance, facilitate entrepreneurship, and attract foreign investments.

We then condition our results on whether SMEs have local access to state-owned banks by regressing *Credit Discouraged* and *Credit Rejected* on the interaction between *Government Connections* and *Access to State-Owned Banks* (whether the share of state-owned banks locally is greater than 0) and display the results in Panel C of Table 4. As expected, the results in Column (1) of Panel C indicate that the encouragement effect of government connections is more pronounced among SMEs located in areas with state-owned banks (p-value = 0.041). Because state-owned banks share similar bureaucratic procedures with other government entities, firms with knowledge of these systems would be more confident in transacting with state-owned banks.

CONCLUSIONS

In this paper, we provide novel evidence on the effects of government connections on SMEs' credit access around the world. We find that SMEs with government connections are significantly less likely to be discouraged from approaching banks for a loan compared to SMEs without connections. In contrast, government connected SMEs do not receive preferential lending from banks: they experience a similar loan rejection rate and loan conditions compared to SMEs without connections. Furthermore, consistent with the idea that government connections allow SMEs to overcome obstacles in corrupted environments, we find that the encouragement effect of government connections is stronger in countries with high corruption.

Our findings have important implications for policymakers. To expedite economic recovery following the 2008–2009 financial crisis, regulators have focused their attention on incentivizing

banks to increase lending. Our analyses reveal that it is equally important to direct policy efforts to make access to financing easier for SMEs. Increased policy efforts to improve the quality of governance and accountability would give firms - especially foreign firms - more confidence in the financial systems of their host country. This would in turn improve access to financing, facilitate entrepreneurship, and attract foreign investments.

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Table 1 Summary statistics[a]

Variable	Obs.	Mean	Std.	Min.	Max.	Connected? Yes	No	p-value
Government Connections								
Government Connections	7,964	0.263	0.440	0.000	1.000	-	-	-
Credit Access								
Credit Constrained	7,964	0.243	0.429	0.000	1.000	0.238	0.245	0.502
Credit Discouraged	7,964	0.020	0.138	0.000	1.000	0.014	0.021	0.030
Credit Rejected	7,809	0.228	0.420	0.000	1.000	0.227	0.229	0.892
Interest Rate (%)	1,799	11.650	6.823	1.000	40.000	12.016	11.503	0.153
Collateral	5,058	0.820	0.384	0.000	1.000	0.848	0.810	0.002
Duration	2,032	32.670	32.220	1.000	360.000	32.689	32.658	0.984
Firm Characteristics								
Firm Age ('00)	7,964	0.169	0.154	0.000	1.830	0.183	0.164	0.000
Firm Size ('00)	7,964	0.940	1.860	0.020	13.500	1.221	0.840	0.000
Audited Firm	7,964	0.471	0.499	0.000	1.000	0.531	0.450	0.000
Holding Firm	7,964	0.083	0.276	0.000	1.000	0.099	0.078	0.003
Publicly Listed Firm	7,964	0.097	0.296	0.000	1.000	0.129	0.085	0.000
Sole Proprietorship Firm	7,964	0.099	0.298	0.000	1.000	0.062	0.112	0.000
Foreign Firm	7,964	0.082	0.274	0.000	1.000	0.073	0.085	0.108
State-Owned firm	7,964	0.032	0.176	0.000	1.000	0.042	0.029	0.004
Export Firm	7,964	0.293	0.455	0.000	1.000	0.284	0.296	0.308
Informal Competition	7,964	0.507	0.500	0.000	1.000	0.536	0.497	0.003
Government Subsidy Firm	7,964	0.123	0.328	0.000	1.000	0.159	0.110	0.000
Female Managed Firm	7,964	0.181	0.385	0.000	1.000	0.152	0.192	0.000
Past Growth	7,964	0.027	0.124	-0.009	1.268	0.030	0.026	0.176
Governance Indicators								
Corruption Perception	7,964	36.240	12.350	17.000	67.000	36.233	36.246	0.967

[a] This table reports the summary statistics for all the variables. For each variable, the p-value of the difference between connected and unconnected firms are calculated. Definitions, units, and sources of the variables are provided in Internet Appendix IA3.

Table 2 Government connections, credit discouragement & rejection[a]

Dependent Variables	Credit Discouraged			Credit Rejected		
	Predicted sign	Model 1	Model 2	Predicted sign	Model 1	Model 2
	(1)	(2)	(3)	(4)	(5)	(6)
Government Connections	"-"	-0.209	-0.236	"-"	-0.008	-0.007
		[0.087]	[0.091]		[0.040]	[0.042]
		(-0.380, -0.039)	(-0.415, -0.057)		(-0.087, 0.071)	(-0.089, 0.074)
Firm Age	"-"	-0.051	0.203	"-"	-0.140	-0.157
		[0.282]	[0.337]		[0.142]	[0.145]
Firm Size	"-"	-0.035	-0.038	"-"	-0.046	-0.039
		[0.029]	[0.033]		[0.015]	[0.015]
Audited Firm	"-"	-0.204	-0.228	"-"	-0.151	-0.141
		[0.074]	[0.083]		[0.038]	[0.039]
Holding Firm	?	0.125	0.131	?	-0.099	-0.111
		[0.117]	[0.135]		[0.067]	[0.068]
Publicly Listed Firm	"-"	0.166	0.146	"-"	0.001	-0.025
		[0.134]	[0.151]		[0.068]	[0.071]
Sole Proprietorship Firm	"+"	-0.045	0.007	"+"	0.098	0.127
		[0.115]	[0.131]		[0.058]	[0.061]
Foreign Firm	"+"	0.014	-0.005	"+"	-0.013	-0.027
		[0.139]	[0.163]		[0.071]	[0.074]
State-Owned firm	"-"	0.562	0.743	"-"	0.035	0.068
		[0.177]	[0.214]		[0.113]	[0.115]
Export Firm	"-"	-0.295	-0.312	"-"	-0.117	-0.156
		[0.098]	[0.115]		[0.046]	[0.049]
Informal Competition	"+"	-0.103	-0.096	"+"	0.830	0.850
		[0.073]	[0.079]		[0.036]	[0.037]
Government Subsidy Firm	"-"	-0.174	-0.279	"-"	-0.237	-0.279
		[0.121]	[0.133]		[0.060]	[0.063]
Female Managed Firm	"+"	0.010	0.036	"+"	0.054	0.053
		[0.084]	[0.097]		[0.044]	[0.046]
Past Growth	"-"	-0.005	0.214	"-"	-0.133	-0.092
		[0.417]	[0.445]		[0.165]	[0.166]
Country Fixed Effects		Yes	No		Yes	No
Sector Fixed Effects		Yes	No		Yes	No
Year Fixed Effects		Yes	No		Yes	No
Country*Year Fixed Effects		No	Yes		No	Yes
Sector*Year Fixed Effects		No	Yes		No	Yes
Country*Sector Fixed Effects		No	Yes		No	Yes
R-squared		0.091	0.256		0.125	0.169
Observations		7,964	7,964		7,809	7,809

[a] This table presents results on the relationship between a firm's government connections and whether it is discouraged from applying for bank loans (Columns (1)-(3)) and whether it gets rejected when applying for a loan (Columns (4)-(6)). Internet Appendix IA3 provides variable definitions. Coefficients are listed in the first row, robust standard errors clustered at the firm-level are reported in the second row in brackets, and the 95% confidence intervals for the main explanatory variables are reported in the third row in parentheses.

Table 3 Government connections and loan terms[a]

Dependent Variables	Duration	Collateral	Interest Rate
	(1)	(2)	(3)
Government Connections	2.310	0.004	-0.148
	[1.925]	[0.105]	[0.316]
	(-1.466, 6.086)	(-0.202, 0.210)	(-0.767, 0.471)
Duration	-	0.005	-0.002
	-	[0.002]	[0.004]
Collateral	4.994	-	-0.308
	[1.925]	-	[0.386]
Interest Rate	-0.071	-0.010	-
	[0.137]	[0.009]	-
Control variables	Yes	Yes	Yes
Country*Year Fixed Effects	Yes	Yes	Yes
Sector*Year Fixed Effects	Yes	Yes	Yes
Country*Sector Fixed Effects	Yes	Yes	Yes
R-squared	0.317	0.275	0.506
Observations	1,740	1,740	1,740

[a] This table presents results on the relationship between a firm's government connections and loan terms. Control variables are similar to those in Table 2 and are collapsed for brevity. Internet Appendix IA3 provides variable definitions. Coefficients are listed in the first row, robust standard errors clustered at the firm-level are reported in the second row in brackets. The 95% confidence intervals for the main explanatory variables are reported in parentheses.

Table 4 Cross-sectional analyses[a]

Panel A: Corruption perception

Dependent Variables	*Credit Discouraged*	*Credit Rejected*
	(1)	(2)
Government Connections*Corrupt Country	-0.415	-0.063
	[0.194]	[0.104]
	(-0.796, -0.035)	(-0.267, 0.141)
Government Connections	0.073	0.045
	[0.158]	[0.094]
Corrupt Country	-0.110	0.677
	[3.522]	[0.391]
Control variables	Yes	Yes
Country*Year Fixed Effects	Yes	Yes
Sector*Year Fixed Effects	Yes	Yes
Country*Sector Fixed Effects	Yes	Yes
R-squared	0.258	0.169
Observations	7,964	7,809

Panel B: Foreign vs. domestic firms

Dependent Variables	*Credit Discouraged*	*Credit Rejected*
	(1)	(2)
Government Connections*Foreign Firm	0.685	-0.074
	[0.330]	[0.163]
	(0.038, 1.333)	(-0.394, 0.246)
Government Connections	-0.298	-0.003
	[0.096]	[0.043]
Foreign Firm	-0.184	-0.010
	[0.192]	[0.083]
Control variables	Yes	Yes
Country*Year Fixed Effects	Yes	Yes
Sector*Year Fixed Effects	Yes	Yes
Country*Sector Fixed Effects	Yes	Yes
R-squared	0.258	0.169
Observations	7,964	7,809

Panel C: Local banking markets

Dependent Variables	*Credit Discouraged*	*Credit Rejected*
	(1)	(2)
Government Connections*Access to State-Owned Bank	-0.465	-0.025
	[0.202]	[0.096]
	(-0.862, -0.069)	(-0.213, 0.163)
Government Connections	-0.016	0.012
	[0.140]	[0.070]
State-Owned Banking Market	0.030	-0.003
	[0.109]	[0.057]
Control variables	Yes	Yes
Country*Year Fixed Effects	Yes	Yes
Sector*Year Fixed Effects	Yes	Yes
Country*Sector Fixed Effects	Yes	Yes
R-squared	0.286	0.173
Observations	6,219	6,092

[a] This table estimates the relationship between a firm's government connections and credit discouragement or rejection conditional on whether the firm is located in a country with high levels of corruption (Panel A), whether the firm is a domestic or a foreign firm (Panel B), and whether the firm has access to local state-owned banks (Panel C). Control variables are similar to those in Table 2 and are collapsed for brevity. Internet

Appendix IA3 provides variable definitions. Coefficients are listed in the first row, robust standard errors clustered at the country-sector level (Panel A) and firm-level (Panels B and C) are reported in the second row in brackets, and the 95% confidence intervals for the main explanatory variables are reported in parentheses.

[i] Consistent with this, Fung (2006) shows that exposure to powerful political actors can empower civic participation.

[ii] We do not use other BEEPS waves (1999, 2002, 2004, and 2005) because they do not include the survey question that we use to measure a firm's government connections.

[iii] The 30 countries are Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyzstan, Latvia, Lithuania, FYR Macedonia, Moldova, Mongolia, Montenegro, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia, Tajikistan, Turkey, Ukraine, and Uzbekistan.

[iv] Twenty-four out of 30 countries in our sample are classified as developing countries. Six countries (Czech Republic, Estonia, Latvia, Lithuania, Slovak Republic, and Slovenia) were classified as developing countries until the late 1990s and are now listed as "advanced economies."

[v] Some firms may also become credit constrained when they did not apply for loans because they think that "*interest rates are not favorable*," "*collateral requirements are too high*," or the "*size of loan and maturity are insufficient*". We exclude these firms from the sample because it is difficult to tell whether they are discouraged firms (they never approach a bank) or rejected firms (they have approached a bank but could not afford to borrow at the terms presented to them by the bank). In Internet Appendix IA9, we show that our results are robust when we classify these firms as discouraged firms.

[vi] Internet Appendix IA12 also compares credit rejection and discouragement between foreign and domestic firms

[vii] Firm size is also a proxy for the firm's collateral value, which is an important determinant of its ability to access external debt financing.

[viii] Year refers to the year when the survey was conducted.

[ix] This effect is also comparable with, for instance, Hung et al. (2018) who find that politically connected firms issue 77.4% fewer management forecasts in a given year compared to non-connected firms.