Regional Favoritism in Access to Credit: Just Believe in It

Abstract

We examine the effect of regional favoritism on firms' access to credit. Using firm-level data on a large sample of 29,000 firms covering 47 countries, we investigate the hypothesis that access to credit of firms is higher in the birth regions of national political leaders. We find evidence that firms located in birth regions of the political leaders are less likely to be credit constrained. This effect takes place through the demand channel: firms in leader regions are less discouraged from applying for loans. We do not find evidence of preferential lending from banks to firms in leader regions. Thus, regional favoritism affects access to credit through changes in perceptions of firm managers but not through changes in the allocation of resources by political leaders.

JEL Codes: D72, G21.

Keywords: regional favoritism, access to credit, borrower discouragement.

"If the man at the top comes from a certain area of Zambia…you find that the people who come after him are all from the same area…It is just a matter of helping someone because he is from the area, do[ing] a favor for him."

Posner (2005, p. 95)

1. Introduction

A key obstacle to economic development is the existence of credit constraints for firms. A large bunch of evidence has indeed shown that improving access to credit allows firms to exploit investment opportunities and to improve their productivity (Gatti and Love, 2008; Gorodnichenko and Schnitzer 2013; Popov, 2014; Rodriguez-Pose et al., 2021). Therefore, any potential impediment hindering access to credit affects negatively firm growth and survival, and ultimately economic growth.

Research on access to credit has identified a large set of determinants including firm characteristics (e.g., firm size for Beck and Demirgüc-Kunt, 2006; ownership for Mertzanis, 2017) and country features like the legal and institutional design (Cingano et al., 2016; Distinguin, Rugemintwari and Tacneng, 2016). A handful of works has also shown that politics can drive access to credit, with the existence of electoral cycles in bank lending (e.g., Dinc, 2005; Carvalho, 2014). Incumbent politicians would manipulate lending behavior of banks – and most particularly of state-owned banks – to enhance their chances of reelection.

This evidence on the political interference on access to credit raises questions on the influence of regional favoritism. Literature has largely documented that political leaders tend to favor their home regions, whereby significant national resources and preferential policies are targeted towards their regions of birth (Burgess et al. 2015; Do, Nguyen, and Tran 2017; Kung and Zhou 2021; Mu and Zhang 2014).

Regional favoritism can have different motivations like supporting family and clan members, ethnic favoritism, or securing the support in the stronghold of the leader. It can be particularly prominent in non-democracies in the absence of effective checks and balances. Nevertheless, it can also occur in democracies since the occurrence of elections gives incentives to political leaders to secure electoral support in their strongholds. Hodler and Raschky (2014) and De Luca et al. (2018) provide evidence that regional favoritism is a global

phenomenon prevalent in all countries whatever their political regime.[1]

Regional favoritism can take various forms including transfers, provision of public goods or localized state-owned firms (Larcinese, Rizzo, and Testa 2006; Moser, 2008; Kramon and Posner 2013). It generates economic benefits for the targeted firms since it favors firm investment (Guo et al. 2021) and firm performance (Faccio and Parsley, 2009), even if it questions the optimal allocation of resources within the country and thus raises doubt about the aggregate gain of such policy.

The objective of this paper is thus to question whether regional favoritism affects access to credit. We investigate whether firms located in the home region of the political leader have a better access to credit than other firms do. We rely on firm-level data from the World Bank Enterprise Survey, a large survey of firms conducted by the World Bank that captures their access to external financing. By combining information on firm financing with data on the birthplaces of national political leaders (at the first-order administrative region level), we construct a sample of 29,456 firms operating in 47 countries. We are then able to explore whether regional favoritism influences access to credit.

With this question, we provide a major contribution to the economic influence of regional favoritism because we extend its understanding through the consequences on the perception of economic agents. Namely, literature on regional favoritism has extensively examined its effects on economic outcomes by considering that the changes result from deliberate actions from the leaders to promote their home regions.

This hypothesis makes sense in frameworks where the outcome only depends on the decisions of the authorities. However, it is not fully relevant in situations in which economic changes can result from changes in the perception of the inhabitants of the home regions of political leaders, even without any action of the leaders. Posner (2005, p. 96) illustrates this effect by explaining that in Zambia, people have "come to expect that when you become President, the people of your area will benefit a lot". Thus, expectations of economic agents can change even without deliberate policy action from the leader.

It is therefore of utmost interest to examine the influence of regional favoritism by disentangling its effects on the allocation of resources and those on the perception of potential borrowing firms' future chances. A large strand of literature has shown that optimism affects economic behavior (e.g., Puri and Robinson, 2007; Youssef and Luthans, 2007). In line with

[1] For evidence in democracies, see Baskaran and Lopes da Fonseca (2021) on Germany, Carozzi and Repetto (2016) on Italy, Fiva and Halse (2016) on Norway.

this idea, expecting economic support from the leader in his home region can change the behavior of economic agents, which can be misinterpreted as the outcome of direct political influence from leaders.

The analysis of the effects of regional favoritism on access to credit provides a unique opportunity to distinguish both types of effects, the so-called allocative effects and perception effects, for theoretical and empirical reasons.

From a theoretical perspective, access to credit is conditional to the allocation of resources, through loan approval, and to the perception of economic agents, through borrower discouragement. On the one hand, access to credit is subject to the willingness of banks to grant loans and as such, it is conditional to the behavior of banks under the influence of the political leaders. Governments can exert a direct influence on state-owned banks but they can also affect the lending behavior of private banks with different levers like tighter prudential supervision or easier access to public entity loan market (e.g., Delatte, Matray, and Pinardon-Touati, 2020). On the other hand, access to credit depends on the behavior of borrowers. Firms can self-refrain from applying for a credit because they anticipate rejection of their loan application (Chakravarty and Xiang, 2013). Perceptions of firms can consequently influence borrower discouragement. Thus, managers of firms located in the region of the leader can expect higher rates of loan acceptance because of their regional links with the leader, even if there is no political interference in the lending decisions.

From an empirical perspective, we exploit the richness of our dataset to disentangle the allocative effect and the perception effect of regional favoritism. To measure access to credit, we follow the approach from Popov and Udell (2012) and Léon (2015) who define a firm as credit constrained if the firm applied for credit but was rejected or did not apply for loans because it was discouraged. We can then identify whether regional favoritism affects loan approval and borrower discouragement separately. We can thus disentangle the allocative and perception effects in the relation between regional favoritism and access to credit. It allows us to investigate how regional favoritism affects access to credit and identify the mechanisms through which this effect occurs.

By way of preview, we find that regional favoritism affects access to credit. Firms located in the region of the incumbent leader have lower constraints in accessing credit relative to other firms. This effect takes place through borrower discouragement: firms located in the region of the national leader are less likely to be discouraged from applying for credit compared to firms in other regions. By contrast, no impact of regional favoritism is found on loan approval: firms in leader regions do not receive preferential lending from banks. Our work

consequently provides evidence that regional favoritism affects the perceptions of economic agents but does not influence the allocation of resources by leaders in the context of access to credit.

Our paper contributes primarily to two strands of research literature. First, we add to the strand of literature on regional favoritism in two ways. On the one hand, we investigate a new potential effect of regional favoritism by examining access to credit. We therefore complement former works studying the impact of regional favoritism on nighttime light intensity, infrastructure projects, and public transfers among others (Hodler and Raschky 2014,Carozzi and Repetto, 2016; Do, Nguyen and Tran, 2017). On the other hand and foremost, the analysis of its effect on access to credit allows a major step forward in the understanding of how regional favoritism affects economic outcomes. We have a theoretical and empirical framework in which we can analyze the effects of regional favoritism on the allocation of resources by authorities but also on the perception of economic agents.

Second, we add to the empirical literature on the determinants of access to credit. A large set of potential determinants have been scrutinized and identified in the literature at the firm level, and the country level including economic and institutional factors. We add to this research by focusing for the first time on the key policy issue of regional favoritism. We therefore provide additional support to the view that political factors can affect access to credit, prolonging the former findings on the existence of electoral cycles in bank lending (Dinc, 2005; Englmaier and Stowasser, 2017).

The remainder of the paper proceeds as follows. In the next section, we present the background of the research question. Section 3 explains the data and methodology. Section 4 discusses the main results. Section 5 contains the additional estimations. Section 6 presents the robustness checks. Section 7 concludes.

2. Background

2.1 Regional favoritism

Distributive politics – defined as the allocation of public resources by governments based on political considerations targeted towards certain groups – is a central topic in political science and economics literature. Existing studies have shown that political leaders allocate

more favorably based on several reasons: political connections, electoral outcomes, ethnicity, and geographic region affiliations (Fouirnaies and Mutlu-Eren 2015; Jiang and Zhang 2020; Larcinese, Rizzo, and Testa 2006). Regional favoritism is one form of distributive politics, which involves the redistribution of political resources in favor of the birth region of political leaders.

The idea that hometown identity is a strong and essential base of self-identity is well-documented (Chen and Li, 2009). As noted by Zhu et al. (2022), relationships based on shared social characteristics create affinity and common attraction, which may foster favoritism. Guo et al. (2021) explain three ways through which hometown identity could facilitate hometown/regional favoritism. First, hometown, as a marker of place of birth and origin, creates a label that causes one to share similar identity with other people also born in the same place, thereby increasing the tendency to help those with the same label relative to individuals sharing different labels. Second, group identity causes subjects to be more likely to cooperate and contribute altruistically as a way to enhance an individual's reputation. Third, shared geographical identity is deeply linked with similar cultural identity, which could facilitate cooperation among members in a group because it is easier to establish mutual trust and reduce asymmetry information. Shared identity, in the form of place of birth, may thus lead political leaders to confer economic benefits in favor of firms located in their regions of birth.

A recent set of works has put into evidence the economic effects of regional favoritism. In a cross-country study, Hodler and Raschky (2014) provide evidence for the existence of regional favoritism. They show that it leads to higher economic activity, measured by the nighttime light intensity, in the birth region of the current political leader during the leader's term of office. However, this effect fades away as the tenure of the political leader ends. They further show that the strength of regional favoritism varies according to the quality of institutions and level of education of citizens.

A few studies have analyzed the effects of regional favoritism in a single-country framework. In Vietnam, Do, Nguyen, and Tran (2017) find evidence of hometown favoritism. They show that government officials' hometowns experience an increase in the number of infrastructure projects within three years after the official is in power. This effect, they document, is pervasive across all ranks. Also in Vietnam, Vu and Yamada (2021) study the behavior of firms in response to hometown favoritism by politicians. They find that soon after a politician assumes office, the number of firms in the home district of the politician increases. In Italy, Carozzi and Repetto (2016) look at the allocation of central government transfers and

find evidence of hometown bias. Their main finding is that the birth towns of government legislators receive larger transfers per capita.

Guo et al. (2021) examine the effects of governors' hometown favoritism on corporate investment among Chinese firms. They find evidence that firms located in the hometown of the incumbent governor make higher investments. Finally, Asatryan et al. (2021) employ a worldwide sample to report that firms located in the birth region of political leaders grow in size and become productive. These effects are however not sustainable and vanish after the leaders are out of office.

2.2 Regional favoritism and access to credit

We present the hypotheses on the effects of regional favoritism on access to credit. Access to credit is a two-dimensional issue involving the behavior of banks through loan granting, and the behavior of firms through borrower discouragement.

Regarding the behavior of banks, we assume that regional favoritism exerts a beneficial influence on loan granting in leader regions. Starting from Nordhaus (1975), a large body of research has documented that incumbent governments manipulate economic resources for several purposes. Governments can therefore channel financial resources to targeted groups (Bussolo et al. 2021; Claessens, Feijen, and Laeven 2008). Firms located in the birth region of the leader can be one such targeted group. Shared identity, in the form of place of birth, can lead political leaders to provide economic benefits in favor of firms located in their birth region.

This hypothesis accords with the empirical findings that regional favoritism favors firm investment (Guo et al. 2021), firm performance (Faccio and Parsley 2009), and tax avoidance (Chen et al. 2019).

Existing studies show that governments have political influence on banks and can manipulate bank lending. They can behave that way either through their direct control on state-owned banks (Carvalho 2014; Dinç 2005), or through their indirect influence on private banks with a wide range of instruments such as the threat of banking license withdrawal, changes in banking regulation, and access to public entity loan market (Kroszner and Strahan 1999; Brown and Dinç 2005). We then expect that banks will be less stringent with loan applications from firms located in leader regions.

We now turn to the behavior of borrowing firms. A large strand of literature has identified "discouraged borrowers", defined as the group of potential borrowers that refuse to apply for loans based on their perceptions of a negative response from banks (Chakravarty and

Xiang 2013). Discouragement of borrowers represent a key issue in access to credit for firms. It is based on borrower expectations that can lead to suboptimal behavior, since they self-exclude from the credit market by overestimating the probability of loan rejection. Wernli and Dietrich (2022) illustrate this concern with a study on Swiss firms in which they show that credit-constrained firms are six times more likely to be discouraged from applying for credit than rejected. They further document that almost 60% of the discouraged firms would have obtained a credit should they have made a formal application.

We hypothesize that regional favoritism reduces borrower discouragement and thus contributes to enhance access to credit. This hypothesis has roots in the fact that the view that political leaders favor people that share the same regional identity as them has now become an "axiom of politics" (De Luca et al. 2018). This view transcends to loan applications, as stressed by Posner (2005, p.95). In a survey on Zambia, he points out that respondents persistently mention that "whereas loan officers tend not to be particularly stringent with applicants from their own groups, applicants from other groups sometimes find that the lending institution will "work to rule [i.e., follow guidelines to the letter] instead of using common senses and being flexible as they do when they deal with their favorite applicants". Therefore, people perceive the acquisition of bank loans to be more difficult if one does not belong to the favored region.

Thus, firms located in the region of the national leader would be more confident to submit credit applications since they know they are operating in a favored region and hence may perceive lower likelihood of loan rejections.

To sum it up, we then propose hypotheses according to which regional favoritism reduces access to credit by favoring loan acceptance and reducing borrower discouragement. It would therefore influence the behavior of banks thanks to the interference of the authorities but also the behavior of firms by changing their expectations of loan approval.

3. Data and Methodology

3.1 Data

To examine how regional favoritism affects access to credit, we combine firm-level data on access to credit from the World Bank Enterprises Survey (WBES) with data on the birth region of national political leaders from the Political Leaders' Affiliation Database (Dreher et al., 2021).

After excluding missing information on the birth region of political leaders and surveys for which responses relating to firms' credit experience are unavailable, our final sample consists of 29,456 firms from 47 countries over the period 2006 – 2019 (83 country-year surveys).

Table 1 reports the coverage of firms by country and year of the survey. For our sample period, 24 countries were surveyed more than once. In these countries, different firms are interviewed for each survey. We observe cross-country differences in the coverage of firms: Russia has the highest number of surveyed firms (3,437) whereas Azerbaijan has the lowest number of firms surveyed (78).

3.2 Measuring credit constraints

Data on access to credit come from the WBES, a comprehensive and widely used firm-level survey dataset conducted by the World Bank. This cross-country survey is answered by top managers and business owners, and captures many aspects of the operations of formal (registered) firms, including access to financing, performance, innovation, corruption and the institutional environment.

It has two major advantages for our analysis. First, the survey questionnaires are standardized across countries with a common methodology, making them comparable in a cross-country analysis. Second, the surveyed firms are representative of the population of firms in the sense that they do not only include large firms, but are mostly small and medium-sized enterprises with various ownership status and industry.[2]

To measure access to credit, we focus on a number of questions regarding firms' credit experience in the past year. We use these questions to classify firms into four categories. Category 1 includes firms with no need for loans. Category 2 gathers firms that needed loans but refused to apply because they were discouraged (i.e., did not apply because of several constraints such as "*unfavorable interest rates*", *"complex application procedures*", or "*did not think it would be approved*"). Category 3 includes firms that applied for a loan and received at least one line of credit. Category 4 gathers firms that applied for a loan but were rejected.

We follow the approach from Popov and Udell (2012) and Léon (2015) to define a credit-constrained firm. We exclude firms without a need for loans (category 1) from our sample because it is impossible to ascertain whether these firms are constrained or not. A firm is defined as credit-constrained if it applied for a loan but did not receive it (category 4) or did

[2] For more information on the dataset, see http://www.enterprisesurveys.org/data.

not apply for credit because it was discouraged (category 2). Firms with approved credit applications (category 3) are classified as credit-unconstrained. We then create the variable *Constrained* as a dummy equal to one if the firm is credit-constrained and zero otherwise. Figure 1 presents a graphical illustration of the construction of this variable.

We construct two additional variables to explore whether credit constraints are influenced by loan approval and/or by borrower discouragement. We create the variable *Apply* as a dummy equal to one if a firm needed loan and made a formal application for credit (categories 3 and 4), and zero if the firm needed loans but did not apply because they are discouraged (category 2). This variable therefore captures borrower discouragement.

We furthermore take loan approval into account by constructing the variable *Approved* as a dummy equal to one if a firm applied for loans and was approved (category 3), and zero if a firm's loan application was turned down (category 4).

Table 2 presents the summary statistics for the variables. We observe that approximately one-half of the firms in the sample are credit constrained (47.6%), suggesting that access to external financing is a major constraint for most of the firms. Among the firms that applied for credit, there is high loan approval rates (86.8%).

3.3 Leaders' birth region

A key independent variable in our analysis is a measure of the birth region of the national political leader. To identify the region of birth of a country's political leader, we employ the Political Leaders' Affiliation Database (PLAD). This dataset compiled by Dreher et al. (2021) contains comprehensive information on the birthplaces and ethnicities of the effective political leaders of 173 countries around the world. The exact starting and ending dates of the political leaders' tenure in power are provided in this dataset. The data follows the definitions in the Archigos database on Political Leaders by Goemans et al. (2009).

We manually complete some missing information on political leaders with data from various internet sources. We exclude from our sample the political leaders who were born abroad and those for whom we could not find information about their place of birth. For instance, we exclude François Bozizé from our sample, the former president of Central African Republic from 15th March 2003 to 24th March 2013, since he was born in Gabon.

We carefully match the region of birth of the incumbent political leader with the exact region in which a firm is located according to the administrative region (ADM1) as reported in the WBES dataset. ADM1 regions are the 1st-order governmental administrative units that are directly below the nation state. They include regions, counties, provinces, districts, and among

others, depending on the country. This matching allows us to identify if a firm is located in the leader's birth region. A region is identified as the leader region if the incumbent political leader of the country was born in that region. We construct the dummy variable *LeaderRegion* equal to one if the region in which a firm is located is a leader region, and zero otherwise.

In our sample, we have a total of 67 national leaders from 47 countries. We observe in Table 2 that about 27% of the firms in our sample are located in the leader regions.

3.4 Methodology

To test the hypotheses that firms located in the region of the political leader are less credit-constrained, we estimate probit regressions with the following model specification:

$$\Pr(Y_{ijk} = 1) = \Phi(\alpha + \beta\ Leader\ region_{ijk} + \delta\ Controls_{ijk} + \varepsilon_{ijk}) \qquad (1)$$

where *i* indicates the firm, *j* the region, and *k* represents the country, Y_{ijk} captures the dependent variables (*Constrained*, *Apply*, and *Approved*), $Controls_{ijk}$ represents the set of control variables, Φ is the standard normal cumulative distribution, and ε is the error term.

The key independent variable is *Leader region*. Our identification strategy exploits the birthplace of the national leader and the location of firms. We compare access to credit for firms operating in the same country but are located in different regions. Everything else equal, we predict that firms located in the region of the leader have fewer constraints in accessing credit compared with firms in other regions in the same country. The coefficient on *Leader region* is therefore expected to be negative when explaining *Constrained*. We expect that the positive impact of regional favoritism on credit access would be reflected through increased loan applications from firms and higher likelihood of banks to accept loan applications. We thus expect a positive coefficient on *Leader region* when explaining *Apply* and *Approved*.

Based on previous works on access to credit (e.g., Beck and Demirgüc-Kunt, 2006; Léon, 2015, Mertzanis, 2017), we include controls at the firm level to control for observable firm-level heterogeneity. We control for a firm's *Age* and *Size* (measured as log of the number of permanent full-time employees). We add a variable accounting for the number of years of experience the top manager has in the sector (*Experience*). Legal status is taken into account through the inclusion of dummies equal to one whether a firm is a *Sole proprietorship* or *Partnership*. We also include dummy variables equal to one if the firm is owned by the government (*State-owned*), owned by foreigners *(Foreign owned*), if the financial statement is audited (*Audited*), whether a firm is an exporter (*Exporter*), and if the firm is part of a larger

group (*Subsidiary*). Firms' geographical location is taken into account with a dummy equal to one if a firm operates in the capital city (*Capital city*). We finally include the perceived degree of corruption for the firm with a dummy equal to one if the firm perceives corruption to be a very severe or major obstacle, and zero otherwise (*Corruption*).

A potential concern is that regions where leaders are born may be systematically different. For example, such regions may be more economically dynamic compared to other regions and could consequently be correlated to firms' ability to access external financing. To capture the region-specific differences in the level of development, we add three variables. First, we take into account the recent performance of firms in a region with the variable *Sales growth*, which captures the average regional-level growth in firm's sales over the past three years. Second, we include the extent to which electricity is a constraint to the operations of firms in a region (*Electricity*). Third, we add *Informal credit*, measured as the average number of firms in a region which finance part of their working capital or fixed assets by funds from money lenders, friends, or relatives. In developing countries, strong social networks within some regions may indeed encourage the use of informal finance as a means to alleviate firms' financing constraints (Mertzanis, 2019).

We further include country-level controls to control for country-specific characteristics that can affect access to credit. We consider *GDP growth* and *Inflation* to capture the short-run macroeconomic situations. We control for financial development with the ratio of domestic credit to the private sector to GDP (*Credit/GDP*). All these country-level variables are collected from the World Development Indicators. We finally add *Rule of law*, extracted from the World Governance Indicators, to capture the quality of institutions.

4. Results

4.1 Baseline estimations

We investigate whether firms operating in the birth region of the national political leader have better access to credit relative to other firms in the country. To this end, we perform four estimations to consider several sets of control variables and test the sensitivity of the results. Table 3 reports the estimations. In column (1), we consider only *Leader region* and year, industry, and country fixed effects in the set of explaining variables. In columns (2) and (3), we add firm-level control variables, region-specific controls, as well as the country-level

controls. Given that some countries in our sample are surveyed more than once, we include country × year fixed effects in column (4) so that we can compare only firms in the same country at the same time but located in different regions.[3] We report the marginal effects in all estimations to measure both statistical and economic significance.

We find that *Leader region* is significantly negative in all estimations. This finding suggests that firms located in the birth region of the national leader experience lower credit constraints as compared to other firms of the country. The results confirm that firms in leader regions are less likely to be credit-constrained, in comparison to other firms operating in different regions in the same country. Therefore, we conclude to regional favoritism in access to credit.

To see the economic significance, we consider the coefficient of *Leader region* in the specification in column (4). We observe that the probability to be credit-constrained for firms located in the birth region of the national leader is about 1.4 percentage points lower than for other firms. This effect is economically meaningful, given that the percentage of credit-constrained firms in our sample is about 47%, and the fact that we compare firms located in the same country but operating in different regions.

Turning to the controls, we find that more informationally transparent firms (whether they are larger, older, or audited) are less likely to be credit-constrained as expected. We furthermore observe that firms with more experienced managers, those that engage in exportation, and those belonging to a large group are less credit-constrained. Interestingly, we find that sole proprietorships and foreign-owned firms are more likely to be credit-constrained. In line with Wellalage et al. (2019), we find that firms located in capital cities are more likely to be credit constrained. We further find that corruption negatively influences firms' likelihood to access credit. The region-level variables also provide interesting insights: whereas regions that use more informal credit are associated with greater credit constraints, those with electricity challenges are less likely to be credit-constrained. Regarding the country variables, we find significantly negative coefficient for *GDP Growth*, suggesting that economic growth is associated with less credit constraints.

4.2 Exploring the channels

[3] An alternative strategy would be to add country-region fixed effects, to compare firms in the same region in the same country, at points in times when the leader is from the region compared to other regions. However, our sample has limited number of countries that have two waves of survey associated with two different leaders, and with the leaders coming from two different regions.

Having established the effect of regional favoritism on access to credit, we turn our attention to understanding the channels through which this effect works. Specifically, we want to examine whether the effect goes through the behavior of banks by favoring loan approval and/or the behavior of firms by reducing borrower discouragement. Greater access to credit can be the consequence of effective changes in loan approval for the lenders but it can also be the outcome of changes in the expectations of loan approval for the borrowers.

We first investigate whether regional favoritism influences the firm decision to apply for a bank loan. The perception that political leaders will favor people from their own region has become an "axiom of politics" (Posner, 2005). This widespread perception may be paralleled to the expectation of the firms located in these favored regions that banks may also favor them by relaxing the normal strict lending protocols. Consequently, these firms can be less discouraged from applying for credit. We can then predict a positive relationship between regional favoritism and firm's likelihood to request for credit when needed.

To examine this hypothesis, we redo our estimations by using *Apply* as the dependent variable. The results are reported in columns (1)-(2) of Table 4. We consider two specifications of the set of controls with country × year fixed effects in column (2). *Leader region* is positive and significant in all regressions. Thus, we show that firms operating in the region in which the national leader was born are more likely to file a loan application. The birth region of the political leader has also an economically sizeable effect. Based on the full specification in column (2), firms located in the leader region are about 2.2 percentage points more likely to apply for credit compared to firms in other regions in the country.

We therefore find clear empirical support to the view that regional favoritism favors access to credit by reducing borrower discouragement. The presence of a leader being born in the region exerts an impact on the perceptions of borrowing firms. It influences their decision to apply for a loan. We consequently conclude to a beneficial impact of regional favoritism on the behavior of firms in terms of access to credit.

Second, we examine whether regional favoritism affects the behavior of banks. Previous literature on regional favoritism has shown the political interference to favor the birth region of the political leader in various fields like public transfers and infrastructure projects. We then posit that regional favoritism takes place with preferential lending. Banks could relax credit constraints for firms located in the birth region of the political leader.

We investigate this hypothesis by redoing our estimations with *Approved* as the dependent variable. We perform this analysis on the subsample of firms that applied for a loan in order to disentangle the loan approval effect from the borrower discouragement effect. The

results are displayed in columns (3)–(4) of Table 4. We again present two specifications of the set of controls with country × year fixed effects in column (4).

We find that *Leader region* is not significant in all regressions. We therefore do not find any statistically significant evidence of regional favoritism in banks' credit approval decisions. This finding indicates that firms located in the birth region of the home leader do not get preferential lending from banks. Hence, regional favoritism does not take place through the behavior of lenders.

Taken together, these patterns provide two major findings. First, the positive influence of regional favoritism on access to credit only takes place through reduced borrower discouragement. It does not go through preferential lending of banks increasing loan approvals.

Second, expectations of changes matter more than effective changes in the relation between regional favoritism and access to credit. It seems that regional favoritism leads to high expectations such that it has a beneficial impact on firm managers even if the effect only occurs on the expectations. As explained above, given that pessimism leads to borrowing firms underestimating their real chances of getting a loan, this mechanism on the expectations is positive for access to credit.

5. Additional estimations

In this section, we complement our main results by examining whether they are affected by the characteristics of the firm, the leader, and the country.

5.1. The influence of firm characteristics

The results reported so far have shown the beneficial influence of regional favoritism on access to credit. We have however performed our investigation for all types of firms whereas this impact might differ across firms. We can therefore question the influence of firm-level heterogeneity on this relation.

Prior literature has documented that small and young firms are more likely to be credit-constrained because of the lack of transparency about their business (e.g., Beck and Demirgüc-Kunt, 2006; Devos et al., 2012). In accordance with this finding, we have shown above that larger firms and older firms are less credit-constrained in the baseline estimations. It is therefore important to check whether regional favoritism has a greater impact on access to credit for small and young firms. If regional favoritism plays a greater influence on small and young

firms to enhance access to credit, its beneficial impact through access to credit would be particularly high at the aggregate level. In other words, regional favoritism would have a greater positive outcome if it has a stronger impact for the most credit-constrained firms.

We have to remember that the mechanism through which regional favoritism favors access to credit is the improvement of expectations on loan acceptance. Regional favoritism is therefore not suboptimal for access to credit since it is not associated with a misallocation or a waste of resources as it can be in other fields.

We conduct subsample analyses to examine whether the effect of regional favoritism on access to credit varies across groups of firms. For size, we follow the WBES classification to classify firms into three groups: *Small* if it has between 5 and 19 employees, *Medium* if the number of employees is between 20 and 99, and *Large* if the number of employees is 100 or more. Regarding firm age, we split the sample into young and old firms based on the median age. The results are presented on Table 5. Columns (1)-(3) report results for firm size while columns (4)-(5) present results for firm age.

We find that the effect of regional favoritism is not the same whatever the firm size. *Leader region* is significantly negative for medium and large firms – with a greater coefficient for large firms – but not significant for small firms. We furthermore observe that the effect of regional favoritism is conditional to the age of the firm. *Leader region* is significantly negative for old firms but not significant for young firms.

When considering the channels through which regional favoritism affects access to credit, we obtain similar findings for borrower discouragement: large and old firms are more likely to submit credit applications. We however point out no difference across firms for loan approval: the coefficient of *Leader region* is not significant when explaining *Approved* whatever the firm size and the firm age.

Thus, our estimations show that the effect of regional favoritism on access to credit varies with the size and the age of the firm. Regional favoritism increases more access to credit for larger and older firms. In other words, regional favoritism is more beneficial for the least credit-constrained firms. This conclusion moderates the beneficial economic outcome of regional favoritism through access to credit. Indeed, we have shown that this effect favors access to credit – and does it through better expectations of loan approval, meaning without distorting the allocation of resources. However, this effect on the expectations takes place in particular for the least credit-constrained firms.

5.2 The influence of leader characteristics

A growing body of literature documents that the tenure and personal traits of political leaders affect policy choices and economic outcomes (Jones and Olken, 2005; Dreher et al., 2009; Francois, Panel and Weill, 2020). It is therefore of interest to examine whether the characteristics of the leader play a key role in influencing the impact of regional favoritism on access to credit. We focus on two leader characteristics: tenure in office, and educational background.

We first consider the tenure in office for the leader. The number of years in office of a leader may influence the effect of regional favoritism on access to credit in two ways. On the one hand, long tenure increases incentives for political leaders to misallocate public resources to special interest groups (McNutt, 1997; Garcia-Vega and Herce, 2011). It can thus be associated with greater bank loan approval for firms located in the leader region. On the other hand, if a leader remains a long time in office, expectations of economic agents that the leader may support his region of birth may wane. This could be due to the fact that people may expect immediate benefits from their leaders as soon as they come to power. Thus, expectations of people may be higher in the early years of the leader's tenure, and then decline the longer the leader continues to stay in power. Then the beneficial effect of the leader region on the decision of firms to apply for a bank loan would be especially high in the early years in office.

To examine the impact of tenure, we use data from Dreher et al. (2020) and split the sample of firms between long vs short tenure based on the number of years in office of the leader. We use the median tenure value (6.5 years) as the cutoff. We report the results in columns (1)-(2) of Table 6.

We find that the effect of regional favoritism on access to credit is observed only for the sample of firms facing leaders with a short tenure. Only these firms have a greater access to credit and a lower borrower discouragement. Given that our main estimations show that the change in expectations of economic agents is the main mechanism for the increased access to credit, we interpret this finding by the fact that firms located in leader regions expect immediate benefit from the leaders. As the leader remains in office for a longer period, the expectations tend to wane.

We next consider the educational background of the leader. We expect a positive impact of education in economics of the leader on access to credit for firms in leader regions. We posit that this effect is reflected through a positive impact on bank loan approval because leaders with education in economics have a better understanding of the economic tools including banks

that they can use to reach their objectives. In a related vein, we expect a positive impact on the decision of firms to apply for a loan since firm managers may expect leaders with economics education to use more economic policy tools to support their home regions.

We combine data from Baturo (2016) with hand-collected online data on the biographies of leaders to have information on the educational background of the leaders of our sample. We create the variable *Education in economics* as a dummy variable that is equal to one if the leader has a higher education degree in economics or management, and zero otherwise. We use this variable to split our sample into leaders with and without education in economics. The results are presented in columns (3)-(4) of Table 6.

In both estimations, we find statistically significant coefficients in Panel A and B explaining respectively *Constrained* and *Apply*. We do not find significant coefficients for *Approved* in panel C. This finding suggests that regional favoritism fosters access to credit in leader regions, irrespective of whether the leader has education in economics or not.

5.3 The influence of country-level characteristics

Country-level features can influence the effect of regional favoritism on firms' access to credit. We consider two characteristics, one cultural and one institutional, in our analysis.

First, we study the role of collectivism, a cultural orientation relevant in explaining the behavior of an individual in a group, on our findings. Collectivism prioritizes group goals over individual's own goals, stresses harmony within groups, and defines the self in relation to the group (Triandis, 1995). In contrast, individualistic cultures act in a self-serving manner rather in a way that best serves the needs of a group.

Collectivism can then shape the role of regional favoritism on access to credit. Through its strong group ties and emphasis on interdependence among members, it can strengthen the positive effect of regional favoritism on access to credit. We can expect greater political interference from a political leader in a collectivistic society to support his group of origin. In a related vein, economic agents in collectivistic societies are more likely to expect preferential treatment from a political leader born in their region because of the greater importance of group ties.

To test this hypothesis, we conduct the analysis by considering separately individualistic and collectivist societies. We measure collectivism using the individualism-collectivism dimension of Hofstede's cultural dimensions. Based on the median, we partition

the sample into individualistic and collectivist cultures. We conduct the estimations separately for both types of cultures for comparison. The results are reported in Table 7. In column (1), we present results for individualistic oriented cultures and column (2) reports the estimation results for collectivist cultures.

We find that the coefficient of *Leader region* is significantly negative for collectivist cultures (when explaining *Constrained* and *Apply*), while it is not significant for individualistic cultures. We furthermore observe no significant coefficient for *Leader region* when explaining *Approved* as in the main estimations. We can then conclude that the impact of regional favoritism on access to credit is only observed in countries with collectivist cultures.

This conclusion accords with our expectations since regional favoritism is based on the ties between the political leader and its region of birth. It helps understanding the influence of regional favoritism on access to credit by identifying the influence of culture.

Second, we analyze the influence of the degree of democracy. We have found that regional favoritism increases access to credit by reducing borrower discouragement. A natural question is therefore to wonder whether this effect is lower in countries that are more democratic. Namely, a more democratic country is associated with checks and balances which reduce the range of policies for the leader. Regional favoritism should therefore be reduced in more democratic countries. On the one hand, the leader has a lower influence on the bank loan approval process. On the other hand, economic agents can expect less support from the leader in presence of a more democratic political system. In line with these expectations, recent studies suggest that regional favoritism could even be more prevalent in democracies (Carozzi and Repetto, 2016; Baskaran and Lopes da Fonseca, 2021).

We use the democracy index from the Polity5 database to split our sample based on the median value of the index into two subsamples: high democracy, and low democracy. We display the results in columns (3)-(4) of Table 7.

We first observe that *Leader region* is significant and positive when explaining *Apply* and not significant when explaining *Approved* for both subsamples of countries. These results suggest that the degree of democracy does not affect the influence of regional favoritism on access to credit, since our results on the channels are similar for both groups of countries. We nonetheless observe a difference when explaining *Constrained*, since the coefficient of *Leader region* is only significant and negative for countries with high democracy. In a nutshell, we find limited evidence on the influence of democracy on the relation between regional favoritism and access to credit.

6. Robustness checks

This section examines the sensitivity of the results in several ways. In all robustness tests, we consider the specification with all control variables and all fixed effects unless otherwise indicated. We report the results in Table 8.

6.1 Sample construction and sensitivity tests

Alternative measure of credit constraints: We perform estimations using an alternative measure of credit constraints. Following previous studies (e.g., Asiedu et al 2013), we create the variable *Constrained(Alternative)* which is a dummy equal to one if a firm cites access to credit as a moderate, major, or very severe obstacle, and zero otherwise. This variable does not capture the same information than our main dependent variable, but it provides a relevant alternative measure to check the robustness of our findings. We redo the estimation with this variable and report the results in column (1). We again find a significantly negative coefficient for Leader region, confirming our finding of regional favoritism in access to credit.

Excluding state-owned firms: Our sample includes both private firms and state-owned firms. In comparison to private firms, state-owned firms are more likely to get government involvement. Their inclusion can therefore influence our findings. We therefore exclude state-owned firms from the sample and redo estimations reported in column (2). We still find that regional favoritism favors access to credit, suggesting that state-owned firms do not drive our findings.

Excluding Russia and China: Our results can be driven by the countries with the largest number of observations in the sample. To check this potential concern, we exclude the two countries with the largest number of observations, Russia and China, from the sample and redo the estimation. The results are reported in column (3). We continue to find that *Leader region* is significant and negative.

Within-country evidence: A potential critique of our cross-country analysis is the inappropriate control of the country-level characteristics. We include a large set of country controls in addition to country fixed effects so that we take into account this potential issue. Nonetheless, to provide an additional answer to this concern, we can perform our analysis by

focusing within-country evidence. To this end, we need countries in our sample with two waves of survey associated with two different leaders, with the additional condition that leaders come from two different regions.

Unfortunately, our dataset restricts the possibilities to perform such within-country evidence. As stressed above, we have only a limited number of countries with two different surveys. In addition, most of these countries have the same political leader or two political leaders from the same region, preventing us to perform such within-country evidence.

We can however perform within-country evidence on one country: Colombia. Colombia has a change in presidents during the survey period: Alvaro Uribe Velez, and Santos Calderon. Both these presidents come from different regions in Colombia. This therefore provides an interesting setting for us to examine the impact of regional favoritism within one country, holding other country-specific characteristics fixed.

We therefore redo our regression on the sample of firms operating in Colombia. It is reported in column (4). We include region fixed effects in our model. We observe that *Leader region* is again significant and negative. This analysis thus corroborates our finding of the beneficial influence of regional favoritism on access to credit.

Politically-connected firms: Former literature has shown that political connections favor access to credit for firms (Houston et al., 2014; Infante and Piazza, 2014). We can therefore question whether the impact of the leader region is not interpreted erroneously in the sense that what is observed would in fact be the influence of political connections. To this end, we control for political connections with the variable *Political connections* defined as a dummy variable equal to one if a firm has secured (or attempted) a government contract in the past 12 months, and zero otherwise.

We report the results in column (5). We still find that *Leader region* is significant and negative. Thus, the influence of the region of the leader is not a consequence of the political connections of firms from this region.

6.2 Econometric concerns

Addressing potential sample selection bias: In our analysis, we focus on the subsample of firms with a need for credit since we do not know whether firms without a need for credit may have been constrained or not should they have applied for loans. This approach can however raise potential sample selection issues if the subsample of firms with a need for credit presents some specific characteristics. To control for the potential selection bias in our sample,

we employ the probit model with sample selection. This model proposed by Van de Ven and Van Praag (1981) estimates two equations, the selection and outcome equations. To improve identification, we follow Léon (2015) and employ two exclusion variables that may influence the need for credit financing but does not affect banks' loan approval decisions. We use *Working capital*, which takes into account the share of goods and services paid for after delivery, and *Competition*, which captures firm's perceived degree of competition from the informal sector. Column (6) presents the results. Despite the change in model specification, we obtain the same main findings: Leader region is significant and negative.

Weighted estimations: As observed in Table 1, the coverage of firms varies significantly across countries. To control for the uneven sample sizes, we perform a robustness check by weighting our regressions by the inverse of the square root of the number of firms per country. This approach ensures that each country carries similar importance in our analysis. The results in column (7) suggests that our results are robust even after taking into account the issue of uneven sample sizes.

7. Conclusion

This paper addresses the impact of regional favoritism on access to credit. We match firm-level data including information on access to credit with data on the birth region of national political leaders to construct a sample of 29,456 firms operating in 47 countries. We investigate whether firms located in the birth region of the political leader have greater access to credit compared to other firms in the country.

Our two key results are as follows. First, we provide evidence of regional favoritism in credit access. We find that firms located in leader regions are less likely to be credit constrained, compared to firms in other regions in the same country. Second, we show that the beneficial effect of regional favoritism only takes place by lowering borrower discouragement. We do not observe any incidence of preferential lending for firms located in the birth region of the political leader.

We further document that regional favoritism increases more access to credit for larger and older firms. It has a greater influence in the first years of the tenure in office of the leader, and is influenced by the presence of a collectivist culture.

Our findings therefore show that regional favoritism can take place through expectations of economic agents, even if does not affect the effective behavior. Hence the

effects of regional favoritism are detectable only in borrowers' beliefs but not in the actual bank lending process.

Literature has shown the key role of expectations in economic outcomes. In the context of access to credit in which firms tend to overestimate their chances to have a loan rejected, we show that expectations of better chances to have a loan play a major role and can lead to favorable economic outcomes.

We therefore provide some micro-level foundations to the findings of Hodler and Raschky (2014) of higher economic development in the home region of the political leaders. It can come from preferential treatment of public authorities but we show it can also be the outcome of lower borrower discouragement.

Our research question has positive and normative implications. From a normative perspective, we do not provide support to establish independence between authorities and banks to avoid political interference in the lending decisions since there is no evidence that regional favoritism is detrimental. First, we do not observe that regional favoritism is suboptimal by generating a misallocation of financial resources on the credit markets since there is no change in the lending behavior. Second, we show that regional favoritism can be beneficial by reducing borrower discouragement, a major issue in the credit market.

From a positive perspective, it helps understanding why regions of origin of the national leaders enjoy greater economic development. We provide evidence that these regions can have economic expansion through the better expectations of loan acceptance associated with the leader in power.

Our takeaway message is that when it comes to regional favoritism, expectations also matter, not only changes in the allocation of resources. A natural question to our work would be to investigate not only how regional favoritism takes place through preferential allocation of resources toward the birth region of the leader, but also how it affects the expectations of the economic agents of this region. In addition to better access to credit, regional favoritism can influence forecasts of earnings for firms and perspectives of economic opportunities for households among others. It therefore opens avenues for further research.

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Figure 1.
Constructing firms' credit constraints

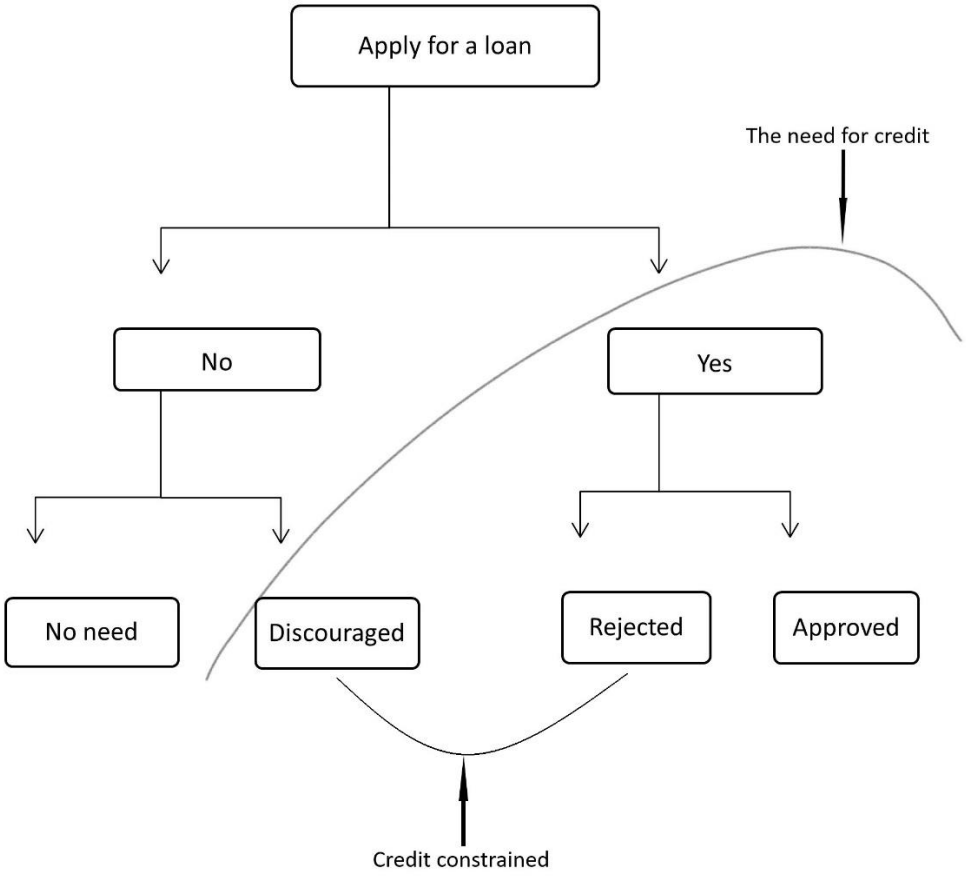

Table 1.
Coverage of firms by country and survey year

This table reports the number of firms by country and by year of survey.

	Survey year														
	2006	2007	2008	2009	2010	2012	2013	2014	2015	2016	2017	2018	2019	Total	Number of surveys
Afghanistan								212						212	1
Azerbaijan													78	78	1
Belarus			169				192					307		668	3
Brazil				784										784	1
Bulgaria							128						52	180	2
Burkina Faso				277										277	1
Burundi								116						116	1
Chile	682				700									1382	2
China						1390								1390	1
Colombia	744				730						730			2204	3
Croatia		394												394	1
Ecuador	432				239						234			905	3
Ghana		402					521							923	2
Guinea	194													194	1
Indonesia				875					804					1679	2
Israel							215							215	1
Italy													309	309	1
Jordan							230						176	406	2
Kyrgyz Rep.				146			137						138	421	3
Latvia							62						123	185	2
Madagascar				263			211							474	2
Malawi				96				278						374	2
Malaysia									505					505	1

Mali		418			173					105				696	3
Mauritius				148										148	1
Mongolia				287			243						298	828	3
Pakistan							368							368	1
Panama					124									124	1
Paraguay											152			152	1
Peru					807						745			1552	2
Philippines									258					258	1
Portugal													357	357	1
Romania				250			304						348	902	3
Russia				618		2,190							629	3437	3
Rwanda													230	230	1
Serbia				270									169	439	2
Sierra Leone											110			110	1
Slovakia				112			90						129	331	3
Slovenia				172			116						177	465	3
South Africa		444												444	1
Tajikistan			206				134							340	2
Togo										101				101	1
Turkey			674				516						759	1949	3
Uganda							335							335	1
Uruguay	366				333						182			881	3
Yemen					238		130							368	2
Zambia													366	366	1
Total	2418	1658	1049	4298	3344	3580	3932	606	1567	206	2153	307	4338	29,456	83

Table 2.
Summary statistics

The table reports the descriptive statistics for the variables employed in this study.

	Mean	Std. Dev.	Obs.
Firm variables			
Leader region	0.274	0.446	29,456
Constrained	0.478	0.5	29,456
Apply	0.569	0.495	29,456
Approved	0.867	0.34	16,774
Age	19.03	16.313	29,456
Firm size	107.437	355.889	29,456
Sole proprietorship	0.259	0.438	29,456
Partnership	0.057	0.232	29,456
Foreign-owned	0.064	0.244	29,456
Exporter	0.156	0.363	29,456
State-owned	0.007	0.083	29,456
Audited	0.448	0.497	29,456
Subsidiary	0.14	0.347	29,456
Capital city	0.152	0.359	29,456
Experience	18.746	11.22	29,456
Corruption	0.321	0.467	29,456
Sales growth	0.384	0.249	29,456
Electricity	1.56	0.811	29,456
Informal credit	0.706	0.235	29,456
Country variables			
GDP growth	3.544	3.67	83
Inflation	0.055	0.052	83
Credit/GDP	40.921	29.546	83
Rule of law	-0.214	0.703	83

Table 3.
Main regressions

The table reports results of probit regressions. The dependent variable is *Constrained*. Appendix provides the definition of the variables. Estimated marginal effects are reported and standard errors are in parentheses. Standard errors are robust to heteroscedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

	(1)	(2)	(3)	(4)
Leader region	-0.03***	-0.018***	-0.013*	-0.014**
	(0.007)	(0.007)	(0.007)	(0.007)
log(Firm size)		-0.177***	-0.176***	-0.174***
		(0.007)	(0.007)	(0.007)
log(Age)		-0.007*	-0.008**	-0.008**
		(0.004)	(0.004)	(0.004)
Sole proprietorship		0.047***	0.048***	0.051***
		(0.008)	(0.008)	(0.007)
Partnership		0.017	0.015	0.021
		(0.013)	(0.013)	(0.013)
Foreign-owned		0.041***	0.041***	0.040***
		(0.011)	(0.011)	(0.011)
Exporter		-0.050***	-0.048***	-0.046***
		(0.008)	(0.008)	(0.008)
State-owned		0.026	0.028	0.029
		(0.030)	(0.030)	(0.029)
Audited		-0.093***	-0.090***	-0.088***
		(0.006)	(0.006)	(0.006)
Subsidiary		-0.034***	-0.033***	-0.038***
		(0.008)	(0.008)	(0.008)
Capital city		0.026***	0.029***	0.032***
		(0.008)	(0.008)	(0.008)
log(Experience)		-0.006	-0.004	-0.004
		(0.004)	(0.004)	(0.004)
Corruption		0.030***	0.030***	0.029***
		(0.006)	(0.006)	(0.006)
Sales growth			0.010	0.021
			(0.014)	(0.015)
Electricity			-0.011**	-0.012**
			(0.005)	(0.006)
Informal credit			0.376***	0.280***
			(0.029)	(0.032)
GDP Growth			-0.001	-0.038**
			(0.002)	(0.016)
Inflation			0.461**	0.015
			(0.213)	(1.844)
Credit/GDP			0.000	-0.000
			(0.001)	(0.001)
Rule of law			0.112**	-0.153
			(0.045)	(0.115)
Observations	29,456	29,454	29,454	29,454
Pseudo R^2	0.166	0.217	0.221	0.227
Log likelihood	-16996.23	-15965.56	-15872.99	-15763.55
Year FE	yes	yes	yes	no
Industry FE	yes	yes	yes	yes
Country FE	yes	yes	yes	no
Country × year FE	no	no	no	yes

Table 4.
Exploring the mechanisms

The table reports results of probit regressions. The dependent variable is *Apply* in columns (1)-(2) and *Approved* in columns (3)-(4). All controls represent the full set of control variables used in Table 3. Appendix provides the definition of the variables. Estimated marginal effects are reported and standard errors are in parentheses. Standard errors are robust to heteroscedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

	Apply		Approved	
	(1)	(2)	(3)	(4)
Leader region	0.02***	0.022***	0.001	-0.003
	(0.007)	(0.007)	(0.006)	(0.006)
All controls	yes	yes	yes	yes
Observations	29,454	29,454	16,752	16,736
Pseudo R^2	0.225	0.229	0.154	0.158
Log likelihood	-15605.36	-15513.59	-5563.47	-5534.44
Year FE	yes	no	yes	no
Industry FE	yes	yes	yes	yes
Country FE	yes	no	yes	no
Country × year FE	no	yes	no	yes

Table 5.
The influence of firm characteristics

The table reports results of probit regressions. The dependent variable is *Constrained*. All controls represent the full set of control variables used in Table 3. Appendix provides the definition of all the variables. We include year, industry and country FEs in all estimations. Estimated marginal effects are reported and standard errors are in parentheses. Standard errors are robust to heteroscedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

	Firm size			Firm Age	
	Small	Medium	Large	Old	Young
	(1)	(2)	(3)	(4)	(5)
			Panel A: Constrained		
Leader region	-0.001	-0.022*	-0.034**	-0.019**	-0.08
	(0.001)	(0.012)	(0.014)	(0.009)	(0.010)
All controls	yes	yes	yes	yes	yes
Observations	12,664	10,183	6,524	13,977	14,233
Pseudo R^2	0.173	0.174	0.208	0.215	0.209
Log likelihood	-6916.59	-5699.67	-3084.31	-7408.11	-7749.86
			Panel B: Apply		
Leader region	0.007	0.029***	0.034**	0.026**	0.016
	(0.01)	(0.011)	(0.013)	(0.009)	(0.01)
All controls	yes	yes	yes	yes	yes
Observations	12,664	10,247	6,479	13,998	14,233
Pseudo R^2	0.16	0.196	0.253	0.23	0.208
Log likelihood	-7268.09	-5442.56	-2710.18	-7099.13	-7809.73
			Panel C: Approved		
Leader region	0.005	-0.006	0.016	0.004	-0.006
	(0.013)	(0.01)	(0.011)	(0.008)	(0.011)
All controls	yes	yes	yes	yes	yes
Observations	5,319	6,324	4,576	8,765	7,202
Pseudo R^2	0.169	0.125	0.136	0.158	0.147
Log likelihood	-2208.09	-2015.94	-1206.60	-2506.14	-2768.40

Table 6
The influence of leader characteristics

The table reports results of probit regressions. The dependent variable is *Constrained*. All controls represent the full set of firm-level and country-level control variables used in Table 3. Appendix provides the definition of the variables. We include year, industry and country FEs in all estimations. Estimated marginal effects are reported and standard errors are in parentheses. Standard errors are robust to heteroscedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

	Tenure		Education in economics	
	Long tenure	Short tenure	Yes	No
	(1)	(2)	(3)	(4)
		Panel A: Constrained		
Leader region	0.002	-0.025***	-0.028**	-0.013*
	(0.011)	(0.008)	(0.014)	(0.008)
All controls	yes	yes	yes	yes
Observations	14,422	14,597	7,037	22,417
Pseudo R^2	0.184	0.26	0.17	0.232
Log likelihood	-8141.11	-7381.97	-3917.98	-11927.51
		Panel B: Apply		
Leader region	0.001	0.035***	0.038***	0.016**
	(0.011)	(0.008)	(0.013)	(0.008)
All controls	yes	Yes	yes	yes
Observations	14,422	14,597	7,037	22,417
Pseudo R^2	0.191	0.261	0.192	0.231
Log likelihood	-8072.04	-7179.72	-3661.02	-11874.71
		Panel C: Approved		
Leader region	0.005	-0.005	-0.01	0.001
	(0.012)	(0.008)	(0.01)	(0.008)
All controls	yes	Yes	yes	yes
Observations	7,520	8,982	4,472	12,196
Pseudo R^2	0.181	0.137	0.122	0.158
Log likelihood	2599.28	-2862.15	-1183.02	-4343.07

Table 7.
The influence of country-level characteristics

The table reports results of probit regressions. The dependent variable is *Constrained*. All controls represent the full set of firm-level and country-level control variables used in Table 3. Appendix provides the definition of the variables. We include year, industry and country FEs in all estimations. Estimated marginal effects are reported and standard errors are in parentheses. Standard errors are robust to heteroscedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

	Individualism	Collectivism	Democracy	
			High	Low
	(1)	(2)	(3)	(4)
		Panel A: Constrained		
Leader region	-0.005	-0.21**	-0.019**	-0.012
	(0.009)	(0.011)	(0.009)	(0.01)
All controls	yes	yes	yes	yes
Observations	17,743	10,604	14,154	15,300
Pseudo R^2	0.19	0.28	0.223	0.21
Log likelihood	-9934.77	-5149.57	-7508.65	-8341.96
		Panel B: Apply		
Leader region	0.014	0.03***	0.027**	0.018*
	(0.009)	(0.01)	(0.009)	(0.01)
All controls	yes	yes	yes	yes
Observations	17,743	10,604	14,154	15,300
Pseudo R^2	0.204	0.272	0.244	0.193
Log likelihood	-9766.71	-5137.32	-7032.73	-8558.26
		Panel C: Approved		
Leader region	-0.015	0.005	0.002	-0.007
	(0.01)	(0.009)	(0.008)	(0.01)
All controls	yes	yes	yes	yes
Observations	9,392	6,455	8,961	7,791
Pseudo R^2	0.155	0.158	0.099	0.206
Log likelihood	-3429.68	-1845.98	-2813.70	-2707.55

Table 8.
Robustness checks

The table reports results of probit regressions. The dependent variable is *Constrained*. All controls represent the full set of control variables used in Table 3. Appendix provides the definition of all the variables. Estimated marginal effects are reported and standard errors are in parentheses. Standard errors are robust to heteroscedasticity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

	Constrained (Alternative)	Excluding State owned firms	Excluding Russia & China	Within-country evidence	Controlling for Politically connected firms	Probit with sample selection	Weighted regressions
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Leader region	-0.025***	-0.013***	-0.17**	-0.068*	-0.014**	-0.014**	-0.019**
	(0.007)	(0.007)	(0.007)	(0.027)	(0.007)	(0.007)	(0.007)
All controls	Yes	Yes	yes	yes	yes	yes	yes
Observations	29,161	29,248	29,454	2,204	26,821	26,753	29,454
Pseudo R^2	0.099	0.222	0.229	0.088	0.211	-	0.22
Log likelihood	-17942.73	-15758.18	-13855.47	-1086.55	-14659.18	-29192.86	-784.91
Wald test	-	-	-			49.48***	
Year FE	yes	Yes	yes	yes	yes	yes	yes
Industry FE	yes	Yes	yes	yes	yes	yes	yes
Region FE	no	no	no	yes	no	no	no
Country FE	yes	Yes	yes	no	yes	yes	yes

Appendix

Variable	Definition and sources
Dependent variables	
Constrained	Dummy=1 if a firm that needed bank credit applied for loan and was denied or refused to apply, and zero otherwise. Source: WBES
Constrained (Alternative)	Dummy=1 if a firm reports access to credit as a moderate, major, or very severe obstacle, and zero otherwise. Source: WBES
Apply	Dummy=1 if a firm needed loans and applied for credit, and zero otherwise. Source: WBES
Approved	Dummy=1 if a firm applied for loan and received at least one line of credit, and zero otherwise. Source: WBES
Firm variables	
Leader region	Dummy=1 if a firm is located in the region where the leader of the country was born, zero otherwise.
Firm size	The number of full-time permanent employees. Source: WBES
Age	Age of the firm. Source: WBES
Sole proprietorship	Dummy = 1 if a firm is a sole proprietorship, and zero otherwise. Source: WBES
Partnership	Dummy= 1 if a firm is a partnership, and zero otherwise. Source: WBES
Audited	Dummy=1 if a firm's financial statements were checked and certified by an external auditor, and zero otherwise. Source: WBES
Experience	Number of years of experience the top manager has in the sector. Source: WBES
Foreign-owned	Dummy=1 if at least 50% of a firm's ownership is held by foreigners, and zero otherwise. Source: WBES
Exporter	Dummy =1 if at least 10% of a firm's annual sales is derived from direct exports, and zero otherwise. Source: WBES
State-owned	Dummy=1 if at least 50% of a firm's ownership is held by the government, and zero otherwise. Source: WBES.
Subsidiary	Dummy=1 if a firm is part of a large group, and zero otherwise. Source: WBES.
Capital city	Dummy=1 if firm is located in capital city, and zero otherwise. Source: WBES
Corruption	Dummy=1 if a firm perceives corruption to be a very severe or major obstacle, and zero otherwise. Source: WBES
Working capital	Proportion of goods and services paid for after delivery. Source: WBES
Competition	Captures a firm's perceived degree of competition in the informal sector. Source: WBES
Political connections	Dummy=1 if a firm has secured (or attempted) a government contract in the past 12 months, and zero otherwise. Source: WBES
Sales growth	Average regional-level growth in firm's sales over three years. Source: WBES
Electricity	Extent to which electricity is a constraint to the operations of firms in a region. Source: WBES
Informal credit	Average number of firms in a region which finance part of their working capital or fixed assets by funds from money lenders, friends, or relatives. Source: WBES
Country variables	
GDP growth	Growth rate in GDP. Source: WDI
Credit/GDP	Domestic credit to the private sector as a share of GDP. Source: WDI
Inflation	Rate of inflation. Source: WDI
Rule of law	Measures the perceptions of the extent to which people have confidence in and abide by the rules of society. Source: World Governance Indicators
Collectivism	Measure of collectivism culture. Source: Hofstede Insights
Tenure	The number of years in office of the leader. Source: Dreher et al. (2020)

Education in economics	Dummy=1 if leader has higher education in economics or management, zero otherwise. Source: Baturo (2016), completed with hand-collected online data on the personal biographies of leaders.
Democracy	Index to measure democracy. Source: Polity Project