POLICY RESEARCH WORKING PAPER 4435

When Do Enterprises Prefer Informal Credit?

Mehnaz Safavian
Joshua Wimpey

Abstract

This paper tests the hypothesis that enterprises may forgo formal finance in lieu of informal credit by choice. They do so to avoid the additional regulatory scrutiny and harassment that engaging with the formal financial sector invites. We test this hypothesis using enterprise-level data on 3,564 enterprises in 29 countries. In this sample, enterprises finance approximately 57 percent of their working capital requirements with external finance. This external finance comes from formal sources, such as commercial banks (53 percent) and informal sources (42 percent), such as trade creditors, or family and friends. In our sample, 14 percent of enterprises rely exclusively on informal finance. We find that the likelihood of enterprises preferring to only use informal finance is inversely related to the quality of the regulatory environment, particularly the quality of tax administration and overall governance. For example, we find that when an enterprise has been asked for bribes by tax inspectors, it is 17 percent more likely to prefer informal finance.

When Do Enterprises Prefer Informal Credit?[1]

Mehnaz Safavian[2]
Joshua Wimpey

I. Introduction

Evidence of perceived financing constraints often comes in the form of enterprises' reliance on informal financing sources, rather than formal sources such as commercial banks. Since informal financing is generally considered an imperfect substitute for formal finance, the literature assumes that enterprises that heavily rely on informal credit do so primarily because they are rationed out of formal credit markets.

The segmentation of credit markets between the formal and informal is largely attributed to credit rationing by lenders as a result of information asymmetries (Stiglitz and Weiss, 1981; Bell et. al., 1997). For example, deficiencies in the legal and institutional environment can make it difficult for banks to enforce contracts (La Porta et. al., 1997, 1998; Jappelli and Pagano, 2002; Jappelli et. al., 2005; Djankov et. al., 2007). Poor financial information makes it more challenging for formal lenders to sort and monitor borrowers (Love and Mylenko, 2003). In rural areas distance to formal providers is a key barrier to lending (McMillan and Woodruff, 1999). The result is that banks exclude some borrowers, and the informal sector serves those borrowers who are excluded by banks.

This paper focuses on reasons other than rationing that affect enterprises' source of financing choices. In particular, we test the hypothesis that enterprises choose informal sources of financing over formal ones in order to avoid the additional regulatory scrutiny and harassment that engaging with the formal financial sector might invite. Dealing with banks can leave enterprises vulnerable to predatory regulators and onerous regulations. We test this hypothesis using enterprise-level data on over 3,500 enterprises spanning 29 countries.

In overregulated economies, enterprises have incentives to hide assets and to circumvent burdensome rules and regulations. Examples of this behavior can be found by looking at the negative correlations between burdensome business registration procedures and enterprise registration, or complex tax procedures and the collection of public revenues.

When business regulations are too complex, costly, or are linked to rent-seeking activities by public officials, enterprises will rationally expend resources or forgo opportunities in an effort to avoid them (Djankov et.. al. 2002; Johnson et. al. 2002; Fisman and Svensson, 2007).

Overly burdensome regulations can spill into financial markets because the same information used to signal repayment capacity to banks can also serve as a signal to regulatory authorities and other public officials. The result of this signaling is that enterprises create a greater amount of transparency revolving around their business operations, making it easier for them to be targeted by public officials.

A higher tax burden, retroactive penalties, more frequent inspections, increased licensing requirements, or a higher demand for bribes can follow. Enterprises recognize this, and may choose to entirely forgo formal finance if the benefits do not outweigh the costs (e.g., the cost of regulatory harassment). We show that this is more likely to be the case in countries and regions characterized by an excessive regulatory environment, and/or a corrupt bureaucracy. In particular we find that the odds of an enterprise choosing informal finance increase by over 1% for each one unit increase in the variable on time to pay taxes (taxtime). Even more important than regulations per se, however, is the honesty of the bureaucracy charged to enforce these regulations. For example, the probability of an enterprise choosing informal finance increases as harassment for bribes by tax inspectors increases – and this number goes from 8% to 39% between the bottom and the top deciles of the distribution of harassment by tax inspectors.

This paper adds to the sparse literature on the link between corruption, regulation, and financial markets. Other authors have examined the link between corruption and access to finance, but from a supply-side perspective. For example, La Porta et. al. (2003) examine the benefits of related lending in Mexico, and find that loans to enterprises controlled by the bank's owners are more likely to end in default, and have lower recovery rates. Banerjee et. al. (2007) find that in Indian public banks, incidences of exposed corruption by bank authorities result in reduced lending. This is because loan

officers in government banks cite fear of prosecution for corruption as a reason for their rigid lending decisions. Finally, Beck et. al. (2007) find that a supervisory strategy that forces banks to disclose accurate information to the private sector tends to lower the degree to which corruption of bank officials is an obstacle to enterprises raising external finance. To the best of our knowledge, this study is unique in that it links corruption and the quality of the regulatory environment to the demand for financial products by enterprises.

This paper is organized as follows. Section II describes the data sources used to test the hypothesis, and analyzes general patterns of enterprise finance across countries and regions. Section III presents the estimation and results while Section IV focuses on tests of robustness. Section V concludes.

II. Data and Main Variables

The hypothesis that a heavy regulatory environment drives enterprises to finance informally is tested using enterprise-level data from the World Bank Enterprise Surveys.[3] The data used for the analysis cover approximately 3500 enterprises in 29 countries - 27 countries in Central and Eastern Europe as well as Ireland and Spain. We only include enterprises with external sources of credit to finance working capital needs. Surveys were conducted in 2005. Below we describe the main variables used in this paper. A more detailed description is provided in Table 1. Table 2 summarizes the main variables by country.

Dependent Variable

We test the hypothesis that enterprises may choose to finance their operations exclusively through informal creditors in order to avoid regulatory scrutiny. Informal finance is defined as any financial contract or financing arrangement that is provided by lenders that are not regulated financial intermediaries. The survey data captures the percent of

---

[3] www.enterprisesurveys.org

working capital financed externally, either from formal sources (primarily banks), or from an array of informal sources such as trade creditors, moneylenders, and friends or family. Enterprises, on average, finance more than half of their working capital needs (53%) with external finance. 54% of external finance comes from commercial banks, while 46% of external finance comes from informal sources (24% from trade creditors, 17% from friends and family, and 5% from moneylenders). Figure 1 highlights variations in enterprise portfolios depending on their preferred sources of finance.

Informal finance sources are quite heterogeneous. They vary in terms of the conditions offered to clients (expensive in the case of a moneylender and trade creditor) and their relationships to the borrower (varies from arms' length to close friend or family).[4] However, informal sources have a number of common characteristics.

Informal creditors can screen and monitor borrowers and enforce contracts without having to rely on written evidence of cash flow, profitability, business plans, and without recourse to the legal system. This is because they acquire information through personal or business relationships with borrowers, through interlinked contractual arrangements, and/or can credibly threaten to seize a borrower's assets without recourse to the formal legal system. Because of this, informal lenders do not rely on the same sort of formal signals of creditworthiness as banks and other financial intermediaries. In this sense, enterprises who rely exclusively on informal lenders can avoid producing financial statements that could potentially make their operations more transparent to regulatory authorities.

To capture enterprise financing choices among external creditors, a binomial dependent variable [1,0] is constructed which measures whether enterprises prefer to rely exclusively on informal finance [1] or whether they prefer bank finance [0]. The

---

[4] Unfortunately, data on interest rates for various credit sources in the data set is unavailable. However, the literature on cost of financing for various forms of informal finance is deep. It is well known that moneylenders and trade creditors charge much higher rates of finance than most intermediaries (See Tirole, 2004, and Petersen and Rajan, 1999 for detailed term on trade credit, Conning, 2002 for terms on moneylenders).

variable comes from enterprises reporting of percentage of working capital financed by retained earnings, bank credit, and various informal sources.

An enterprise's financing choice is categorized as '1' if their working capital needs are entirely met through informal finance *and* if they indicated that the reason they do not use bank finance is because they do not need or want bank loans (Column 3 Figure 1). A financing choice is categorized as '0' if the enterprise's working capital needs are met by any amount of bank credit (Column 1 Figure 3) *or* if an enterprise indicates they do not have bank credit but would have preferred to use bank credit (Column 2 Figure 3). Reasons that an enterprise might prefer bank credit (but not use it) range from having applied for a loan and been denied to not applying because collateral requirements were too exigent, or because the terms and conditions were unattractive. Approximately 14% of enterprises prefer to use only informal sources, while 86% of enterprises use (72%), or would prefer to use (14%), bank credit.

In Table 4 enterprise characteristics are shown across financing preferences. We observe differences across enterprises on the age, size, and asset values. A significantly higher percent of enterprises that prefer bank loans (formal finance) have their financial statements audited (approximately 56% versus 44%). However, enterprise performance, measured by either employment growth or labor productivity, does not vary significantly across enterprise groupings.

Explanatory Variables

The explanatory variables used to test the hypothesis are various measures of corruption, regulation and enterprise transparency, at both the enterprise and country level. Specifically, we look at measures of corruption, tax regulations and administration, business registration and licensing procedures, labor regulations and land registration.

At the enterprise level, the analysis relies on several measures of enterprises' perceptions of the business environment, including indicators on the transparency of enterprises'

6

operations vis-à-vis the tax authorities, regulatory harassment in the form of bribes or inspections, and perceptions of regulatory obstacles. Reliance on enterprises' perceptions and subjective evaluation of corruption and other regulatory burdens raises concerns about the potential endogeneity between explanatory and dependent variables. To help deal with this problem, we use location averages as instruments. Because the enterprise level data consists of subjective opinions and recall data, measurement error is likely to be of concern, particularly in the bribe and corruption data. However, using grouped averages as instruments can also serve to mitigate the measurement error (Krueger and Angrist, 2001).

For robustness purposes, variables from the World Bank indicators on Doing Business are used to capture the regulatory burden at the country level.[5] These variables are quantitative measures of business regulations and the protection of property rights across countries in our data set. We use measures of the cost of regulation revolving around taxation, business registration, employment rigidities, property registration, and licensing. Because country fixed effects are used in our model, these country-level variables are interacted with enterprise perception variables matching each of the Doing Business variables in question. For example, Doing Business variables on tax administration at the country level (e.g. number of tax payments in a given country, or days needed to make tax payments) are interacted with enterprise perceptions of tax administration as a business constraint. A similar approach is employed for all country level variables.

We control for enterprise characteristics which may influence an enterprise's financing portfolio; enterprise size, ownership, and legal status. The variable on ownership (foreign-owned versus domestic) was subsequently dropped, as it was consistently insignificant. Country and industry fixed effects are used throughout the estimation.

Table 1 provides a detailed description of all variables. Table 2 presents summary statistics by country of all the main variables. One can see from Table 2 that the

---

[5] These are available at www.doingbusiness.org. The original methodology is developed in Djankov et al. (2002) and Botero et al. (2004).

preference for informal finance varies considerably across countries. While the mean percent of enterprises from the sample which prefer informal finance is 14%, this masks considerable differences across countries - from a low of 1% in Croatia, to a maximum of 33% in Azerbaijan.

Similarly, measures of regulation and corruption also vary significantly across countries. The number of tax payments necessary to fulfill tax obligations to the government ranges from a low of 8 payments in Ireland and Latvia, to a high of 130 in Uzbekistan. In Ireland, for example, the average degree to which paying bribes is considered common and necessary (Br-common, scale of 1-4) is a low of 1.27, while in Kyrgyz Republic the mean is a high of 2.91. We also see a high variation regarding firm financial reporting. For example, in Ireland and Estonia, enterprises report over 94% of their sales to tax authorities, while in Turkey, Albania, or FYR Macedonia, these same figures are in the range of 70%.

Table 3 presents correlations between the main explanatory variables. Correlations exist between almost all measures of corruption identified by enterprises in the sample. In particular, the variable capturing how commonplace bribe payments are considered (Br-common) is correlated with almost all other dimensions of corruption – including perceptions of bribe demands during inspections (Br-taxmtg, Br-safeinsp, Br-fireinsp, Br-taxinsp), and the two variables measuring bribe levels to secure government contracts (Br-govcon and Br-convalue). The consistency of these correlations is reassuring, given that perceptions of corruption can be noisy (Fisman and Svenson, 2007).

It is also worth noting that corruption and bribe variables are highly correlated with regulatory procedures, but not with regulatory costs. In particular, note that the number of procedures necessary to register and transfer property (Landreg_proc) and the number of payments and procedures necessary to complete the payment of taxes (Taxpay) are both consistently correlated with various measures of bribe payments. Yet, explicit costs of these regulations, such as the cost to register property or the tax rate (Landreg_cost, Taxrate) are uncorrelated with corruption variables. This is consistent with the tollbooth

theory of regulation, that regulatory procedures are designed to extract bribes by rent-seeking public officials.

III. Estimation and Results

We argue that enterprises' preference to use informal finance exclusively depends, in part, on the risks and burdens imposed on enterprises by the regulatory environment. When the cost of compliance is high – either through the *de jure* rules of regulation, or because predatory regulators seek bribes from enterprises – enterprises may choose to stay below the radar screen of regulation. Since applying for formal sector loans entails becoming more financially transparent, enterprises may choose to forgo formal finance. This is because the same mechanisms enterprises use to signal creditworthiness to formal sector lenders, also make enterprise operations more transparent and easier to monitor for regulatory authorities. We test the hypothesis that enterprises are more likely to opt out of the formal financial by choice if they operate in a predatory regulatory environment.

A maximum likelihood estimation technique is used to estimate a binomial logit of unordered enterprise sectoral choice. Y is the dependent variable indicating enterprise sectoral choice:

Y=0 if the *i*th enterprise has some form of formal finance and

=1 if the *i*th enterprise relies only on informal finance, *and* is financially unconstrained

The probability of a particular sectoral choice is given by:

$Y_{ij}*=f(X1,…XN) +e$

where

$Y_{ij}*$=probability that some enterprise *i* will choose outcome *j* (prefers formal finance),

Y_{ij}=observed dummy that is equal to one when outcome j (prefers exclusive use of informal finance) is observed,

X1=enterprise size,

X2=legal status,

X3:XN=measures of corruption and regulation

The choice of explanatory variables X is guided by the analytical arguments discussed earlier. In particular a number of variables capturing corruption and regulatory burden are included. Specifically we look at variables on prevalence of corruption and bribes, tax regulation and administration, business registration and licensing, labor rigidities, and constraints to acquiring and transferring immovable property.

Since the hypothesis is that enterprises' preference for informal finance is a spillover effect of a burdensome regulatory environment, we expect the signs of most of our variables to be positive, indicating a positive association between measures of regulation and exclusive use of informal finance. The exception will be the expected signs on our variables which measure transparency (taxreport_sales and taxreport_labor). Here we hypothesize a negative sign, indicating that the closer aligned actual and reported levels of income and labor figures are, the more likely enterprises will choose bank credit over informal finance. The rationale is straightforward – the less these enterprises have to hide from regulatory authorities, the more likely they are to credibly signal to formal financial intermediaries with accurate financial reporting.

We now consider the maximum likelihood estimates of the binomial logit model of enterprise sectoral choice. Tables 5-7 show the cross-sectional results on the factors influencing the choice of informal finance, testing the impact of various dimensions of the regulatory environment for businesses on enterprises' financing patterns.

Table 5 presents the results of the regressions using variables measuring corruption and paying bribes. Controls for enterprise size and legal status are included.[6] A number of the variables are positive and significant. In particular, the variables measuring the degree to which bribes are solicited during meetings or inspections (Br-taxmtg and Br-taxinsp), and the cost (in bribes) of securing government contracts (Br-convalue) are significant and positive. Our composite variable for overall bribes (Binary Bribe Index)

---

[6] Other controls (ownership, age, assets) proved to be consistently insignificant, and were dropped.

is also positive and significant. Based on the reported coefficients, we find that when an enterprise is solicited for a bribe from any agency covered by the survey (Binary Bribe Index), they are 8% more likely to choose informal finance exclusively, and they are 17% more likely to choose informal finance exclusively if solicited for a bribe by a tax inspector.

In Table 6, the results of measures of tax administration and regulation on enterprise financing preferences are shown. The findings suggest that the administration of taxes is an important factor in enterprise financing patterns, while tax rates are not. In particular, the variables approximating the number of tax payments, and the time needed to complete the revenue collection system (Taxpay and Taxtime respectively) are positively and significantly associated with the preference for informal finance.[7] For every one unit increase in the variable Taxtime, the probability of enterprises choosing informal finance increases by 1%. And this number goes from 8% to 39% between the bottom and top ends of the distribution of taxtime on this variable.

The findings also suggest that enterprises that obfuscate financial reporting are more likely to rely on informal finance. Tax Report Sales and Tax Report Labor (variables that measure truth in reporting to tax authority on sales and employment) have the expected sign (both negative), while the latter variable is significant. Finally, we see that our variable on tax rates has no significant impact on enterprise financing preferences.

Variables on other regulatory procedures were also tested. Table 7 shows the results for land regulations, which are consistent with the findings on corruption and tax regulation. More burdensome and onerous procedures for registering property are significantly associated with informal financing preferences. However, labor regulations, business registration procedures, and licenses costs and procedures were also tested against enterprise financing patterns, and were not found to be significant in the overall sample.

---

[7] The Taxpay, Taxtime variables are interacted with an enterprise perception variable on tax administration as a constraint. Taxrate is interacted with an enterprise perception variable on tax rate as a constraint.

IV Robustness Checks

As a robustness check, we also test the relationship between financing patterns and regulatory burdens on small enterprises exclusively. Tables 5-7 also show the results of regressions for small enterprises only[8].   One concern with the cross-section data is that there is endogeneity in enterprise location choices. Enterprises may choose *ex ante* not to locate in countries or regions with unfavorable regulatory environments, and this could bias our results. We try to check for this by limiting our analysis to small, indigenous enterprises. Presumably these enterprises do not have the same mobility and location-choice options as large, foreign-owned enterprises.

The results show that the regulatory environment matters for small enterprise financing decisions as well. The results on the corruption regressions (Table 5) show that one additional variable becomes significant (Br-common), and that the direction and significance for the other corruption variables hold.   The impact of tax regulation and administration on small enterprise financing preferences is also similar to the larger population of enterprises from our sample (Table 6). The significance and direction of all the tax variables hold. Additionally, all the significance and direction of the variables on land registration costs and regulations for small enterprises are constant (Table 7).

We are also interested in understanding whether or not enterprises' preferences for informal finance under unfavorable regulatory and governance conditions depend on the honesty and transparency of the enterprise itself.   In other words, are honest, transparent enterprises likely to choose informal finance under adverse regulatory conditions? Or is it the case that this mechanism happens only with enterprises that avoid taxes and regulations in general?   Our data allows us to test this, because we have enterprise level information on the percent of sales revenue, and the percent of the labor force that is reported to tax officials (Tax Report Sales, Tax Report Labor).   We looked at a subset of

---

[8] "Small" enterprises are defined as having fewer than 50 employees

enterprises in the sample that identify themselves as under-reporting tax earnings and labor force by a significant margin – less than 80 percent of sales and labor force[9].

Tables 8-9 show the results for enterprises that are transparent ('honest' enterprises), versus those enterprises who evade taxes ('dishonest' enterprises). We find that for 'dishonest' enterprises none of our corruption coefficients remain significant. However, the regulatory burdens *per se* are significant – all of our earlier measures of regulatory burden remain significant, while variables approximating business licensing obstacles (Busregcost) and employment rigidities (Labregs_firecost) become robust for this set of enterprises. On the other hand, for 'honest' enterprises, we find that the significance of all of the earlier corruption variables still hold (with the exception of our bribe index variable). For measures of regulatory burden, our earlier results hold for 'honest' enterprises (with one exception, Taxpay).

We also were interested in understanding the role of enterprise performance in financing outcomes. It could be that enterprise performance is linked to corruption (corrupt regulators identify better performing enterprises to extract bribes from), and therefore it is actually enterprise performance driving our results. If this is the case, it would bias our estimates in the opposite direction, since better-performing enterprises may be more likely to select into formal financial markets. Still, we checked to see if the results hold for better performing enterprises. We find that top performers are not more affected by corruption and other regulatory burdens. [10]

V. Conclusions

This study is motivated by the limited empirical evidence regarding the validity of the credit rationing hypothesis for enterprises. In view of the fact that approximately 14 % of a representative sample of enterprises prefer the exclusive use of informal finance, we

---

[9] For this robustness check, we chose a cutoff at the 75th percentile of an enterprises' percent of sales and labor reported for tax purposes. The 75th percentile corresponds with enterprises reporting more than 80% of their sales and labor.

[10] Top performers are defined as those enterprises in the top 25% by measure of sales/employees, controlling across industries.

investigate if the regulatory environment may be a factor in driving the decision-making process.

Focusing on enterprises with short-term loans for working capital, evidence from approximately 3,500 enterprises in 29 countries suggests that the regulatory environment is a factor in enterprises' preference for informal creditors. Enterprises facing higher and more frequent demand for bribes, and that deal with onerous regulatory obstacles, are more likely to prefer informal finance.

In predatory regulatory environments, enterprises will forgo opportunities in order to avoid the burden of regulation. Enterprises may forgo opportunities to engage in borrowing from banks because they do not want to make their operations more transparent, want to hide assets in order to minimize tax payments, and do not want to make themselves vulnerable to rent-seeking officials.

References

Banerjee A., S. Cole, and E. Duflo. 2007. Are Monitors Over-Monitored? Evidence from Corruption and Lending in Indian Banks. Unpublished manuscript.

Beck, T., A. Demirguc-Kunt, and Ross Levine. 2007. Bank Supervision and Corruption in Lending. *Journal of Monetary Economics*, forthcoming.

Bell, C. 1988. Credit Markets and Interlinked Transactions, in H. Chenery and T.N. Srinivasa, eds., *Handbook of Development Economics*. Amersterdam: North Holland.

Bell, C., T.N. Srinivasan, and C. Udry. 1997. Rationing, Spillover and Interlinking in Credit Markets: The Case of Rural Punjab. *Oxford Economic Papers*, 49: 557-587.

Binswanger, Hans, and Mark Rosenzweig. 1986. *Credit Markets, Wealth and Endowments in Rural South Asia*. World Bank Discussion Paper.

Botero, J., S. Djankov, R. de la Porta, F. Lopez-de-Silanes, A. Shleifer. 2004. The Regulation of Labor. *Quarterly Journal of Economics*: 119, no. 4: 1339-82.

Djankov, S., R. de la Porta, F. Lopez-de-Silanes, A. Shleifer. 2002. The Regulation of Entry. *Quarterly Journal of Economics* 117, no. 1: 1-37.

Djankov S. , C. McLeish, A. Shleifer. 2007. Private Credit in 129 Countries. *Journal of Financial Economics*, forthcoming.

Fisman, R., and J. Svensson. 2007. Are corruption and taxation really harmful to growth? Enterprise level evidence. *Journal of Development Economics* 83: 63-75.

Hoff, K., and J. Stiglitz. 1993. Immperfect Information and Rural Credit Markets: Puzzles and Policy Perspectives. In K. Hoff, A. Braverman, and J. Stiglitz, eds., *The Economics of Rural Organization: Theory, Practice, and Policy*, 32-52. New York: Oxford University Press for the World Bank.

Jain, A. 1999. Symbiosis vs. Crowding-Out: The Interaction of Formal vs. Informal Credit Markets in Developing Countries. *Journal of Development Economics*, 59: 419-444.

Jappelli, T., and Marco Pagano. 2002. Information Sharing, Lending, and Defaults: Cross-country evidence. *Journal of Banking and Finance* 26: 2017-2045.

Jappelli, T., M. Pagano, and M. Bianco. 2005. Courts and banks: Effect of judicial costs on credit market performance. *Journal of Money, Credit and Banking* 37: 223-244.

Johnson, S., J. McMillan, and C. Woodruff. 2002. Property Rights and Finance. *American Economic Review* 92, No. 5:1335-56.

Krueger, A.B., J. Angrist. 2001. Instrumental variables and the search for identification: From supply and demand to natural experiments? *Journal of Economic Perspectives* 15: 69-85.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny. 1997. Legal Determinants of External Finance. *Journal of Finance* 52: 1131-1150.

———. 1998. Law and Finance. *Journal of Political Economy* 106: 1113-1115.

La Porta, R., F. Lopez-de-Silanes and G. Zamarrita. 2003. Related Lending. *Quarterly Journal of Economics*, 18, No. 1: 231-68.

Love, I., and N. Mylenko. 2003. *Credit reporting and financing constraints*. World Bank Policy Research Paper, No. 3142.

McMillan, J., and C. Woodruff. 1999. Interenterprise relationships and informal credit in Vietnam. *Quarterly Journal of Economics*; 114, No. 4:1285-1320.

Pal, Sarmistha. 2002. Household sectoral choice and effective demand for rural credit in India. *Applied Economics*, 14: 1743-1755.

Petersen, M., and R. Rajan. 1997. Trade credit: Theories and Evidence. *The Review of Financial Studies*, 10, no. 3: 661-691.

Stiglitz, Joseph, and A. Weiss. 1981. Credit rationing in markets with imperfect information. *The American Economic Review*, 71, no. 3: 393-409.

Tirole, Jean. 2006. *The Theory of Corporate Finance*. Princeton, N.J.: Princeton University Press.

Table 1: Variable Description	
Variable	Description
Inform	Dependent binary variable. Indicates whether or not a financially unconstrained enterprise relies exclusively on informal finance, or uses some formal finance. Variable takes on a value of 1 if the former is the case and 0 if the enterprise uses formal finance. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org).
Br-common	Subjective categorical variable capturing enterprise perception of whether it is common to pay informal payments/gifts to get things done with regard to customs, taxes, licenses and regulation. Scale of variable is 1-4, with 4 being associated with strong agreement. Mean taken at sub-national level. Higher values indicate more corruption. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org)
Br-taxmtg	Mean of a binary variable on whether or not a gift or informal payment was actually requested at a meeting with a tax official. 1 indicates 'Yes' 0 indicates 'No' not true 2==No. Variable aggregated at the sub-national level. Higher values indicate more corruption. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org)
Br-govcon	Subjective categorical variable capturing enterprise perception on whether its common to pay bribes to obtain government contracts. Scale of variable is 1-6, with 6 indicating 'Always necessary.' Mean taken at sub-national level. Higher values indicate that bribe payments more common. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org)
Br-safeinsp	Subjective categorical variable capturing enterprise perception on whether its common to pay bribes occupational health and safety inspections. Scale of variable is 1-6, with 6 indicating 'Always necessary.' Mean taken at sub-national level. Higher values indicate that bribe payments more common. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org)
Br-fireinsp	Subjective categorical variable capturing enterprise perception on whether its common to pay bribes during fire inspections. Scale of variable is 1-6, with 6 indicating 'Always necessary.' Mean taken at sub-national level. Higher values indicate that bribe payments more common. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org)
Br-taxinsp	Subjective categorical variable capturing enterprise perception on whether its common to pay bribes to deal with taxes and tax collection. Scale of variable is 1-6, with 6 indicating 'Always necessary.' Mean taken at sub-national level. Higher values indicate that bribe payments more common. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org)
Br-convalue	Percent of contract value typically paid in additional or informal payments or gifts to secure a contract when doing business with the government. Mean taken at sub-national level. Higher values indicate more corruption.
Taxpay	Taxpay is a country level variable that measures the number of tax payments per country, standardized to reflect the total number of taxes paid, the method of payment, frequency of payment and no. of agencies involved. Variable is anchored by an enterprise's perception of tax administration as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate tax administration is more problematic. Source: World Bank Doing Business Indicators (www.doingbusiness.org) and World Bank Enterprise Surveys (www.enterprisesurveys.org).
Taxtime	This indicator is a country level variable that measures the time to prepare, file and pay (or withhold) three major types of taxes: corporate income tax, value added or sales tax and labor taxes, including payroll and social security contributions. Variable is anchored by an enterprise's perception of tax administration as a constraint (subjective categorical variable, capturing an enterprise's assessment of

	tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate tax administration is more problematic. Source: World Bank Doing Business Indicators (www.doingbusiness.org) and World Bank Enterprise Surveys (www.enterprisesurveys.org).
Taxrate	Taxrate is a country level variable that measures the amount of taxes payable by the business in the second year of operation, expresses as a share of commercial profits. The total amount of taxes is the sum of all different taxes payable after accounting for deduction and exemptions. Variable is anchored by an enterprise's perception of the tax rate as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate tax administration is more problematic. Source: World Bank Doing Business Indicators (www.doingbusiness.org) and World Bank Enterprise Surveys (www.enterprisesurveys.org).
Taxreport_sales[11]	Percent of total sales declared by enterprises for tax purposes. Mean taken at sub-national level. Higher values indicate more transparency vis-à-vis the tax authorities. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org).
Taxreport_labor[12]	Percent of labor force declared by enterprises for tax purposes. Mean taken at sub-national level. Higher values indicate more transparency vis-à-vis the tax authorities. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org).
Landreg_proc	Landreg_proc is a country level variable that measures the full number of procedures necessary when a business purchases land and a building to transfer the property title from the seller to the buyer so that the buyer can use the property for expanding its business, as collateral in taking new loans or to sell to another business. Variable is anchored by an enterprise's perception of the land regulations as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate land regulations are more problematic.
Landreg_cost	Landreg_cost is a country level variable that measures cost (as a percent of the property value) for completing the full number of procedures necessary when a business purchases land and a building to transfer the property title from the seller to the buyer so that the buyer can use the property for expanding its business, as collateral in taking new loans or to sell to another business. Variable is anchored by an enterprise's perception of the land regulations as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate land regulations are more problematic.
Landreg_time	Landreg_time is a country level variable that measures the median duration (in days) that property lawyers or registry officials indicate is necessary to complete the process of property registration for purchases of land and/or a building to transfer the property title from the seller to the buyer so that the buyer can use the property for expanding its business, as collateral in taking new loans or to sell to another business. Variable is anchored by an enterprise's perception of the land regulations as a constraint (subjective categorical variable, capturing an enterprise's

---

[11] Taxreport_sales measures the percent of total sales reported for tax purposes by asking a enterprise the following, "Recognizing the difficulties that many enterprises face in fully complying with taxes and regulations, what percentage of total annual sales would you estimate the typical enterprise in your area of business reports for tax purposes?"

[12] Taxreport_labor measures the percent of the total labor force reported for tax purposes by asking a enterprise the following, "Recognizing the difficulties that many enterprises face in fully complying with labour regulations, what percentage of total workforce would you estimate the typical enterprise in your area of business reports for tax purposes?"

	assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate land regulations are more problematic.
Labregs_hire	Labregs_hire is a country level variable that measures the difficulty of hiring employees. Variable is anchored by an enterprise's perception of the labor regulations as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate labor regulations are more problematic. Source: World Bank Doing Business Indicators (www.doingbusiness.org) and World Bank Enterprise Surveys (www.enterprisesurveys.org).
Labregs_hours	Labregs_hours is a country level variable that measures the rigidity of labor regulations governing hours employees can work. Variable is anchored by an enterprise's perception of the labor regulations as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate labor regulations are more problematic. Source: World Bank Doing Business Indicators (www.doingbusiness.org) and World Bank Enterprise Surveys (www.enterprisesurveys.org).
Labregs_rigid	Labregs_rigid is a country level variable that measures the rigidity of labor regulations. Variable is anchored by an enterprise's perception of the labor regulations as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate labor regulations are more problematic. Source: World Bank Doing Business Indicators (www.doingbusiness.org) and World Bank Enterprise Surveys (www.enterprisesurveys.org).
Labregs_fire	Labregs_fire is a country level variable that measures the difficulty of firing an employee. Variable is anchored by an enterprise's perception of the labor regulations as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate labor regulations are more problematic. Source: World Bank Doing Business Indicators (www.doingbusiness.org) and World Bank Enterprise Surveys (www.enterprisesurveys.org).
Labregs_firecost	Labregs_firecost is a country level variable that measures the costs of firing an employee. Variable is anchored by an enterprise's perception of the labor regulations as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate labor regulations are more problematic. Source: World Bank Doing Business Indicators (www.doingbusiness.org) and World Bank Enterprise Surveys (www.enterprisesurveys.org).
Labregs_hirecost	Labregs_hirecost is a country level variable that measures the costs associated with hiring an employee. Variable is anchored by an enterprise's perception of the labor regulations as a constraint (subjective categorical variable, capturing an enterprise's assessment of tax administration as a constraint to doing business. Scale of 1-4, with 4 indicating a severe constraint). Higher values indicate labor regulations are more problematic. Source: World Bank Doing Business Indicators (www.doingbusiness.org) and World Bank Enterprise Surveys (www.enterprisesurveys.org).
Size	Size is an enterprise variable that measures the number of full-time permanent employees at the enterprise. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org).

Legal Status	Legal Status is a binary variable that measures whether an enterprise is registered as a sole proprietorship or as a company. 0 indicates sole proprietorship, while 1 indicates the enterprise is registered as some form of company. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org).
Binary Bribe Index	Binary Bribe index is a variable that measures whether and enterprise has been asked for an informal gift or payment in the past year for one or more of the following: Connection/access to public utilities, obtaining business permits, obtaining government contracts, to deal with safety, fire, or environmental inspections, for tax purposes, for customs, courts, or to influence legislation.) indicates no bribes were solicited, 1 indicates that at least one bribe was solicited. On average, 68% of enterprises report at least one bribe. Source: World Bank Enterprise Surveys (www.enterprisesurveys.org).

Table 2: Summary Statistics by Country (means)

		Inform	Br-common	Br-taxmtg	Br- govcon	Br-safeinsp	Br-fireinsp	Br-taxinsp	Br-convalue	Taxpay	Taxtime	Taxrate	Taxreport_sales	Taxreport_labor
Albania	Mean	0.14	2.60	1.21	2.57	1.92	1.71	3.21	5.69	42	240	55.80	74.69	72.70
Armenia	Mean	0.06	1.93	1.22	2.16	1.90	1.81	2.98	1.34	50	1120	42.50	94.75	94.76
Azerbaijan	Mean	0.33	2.44	1.20	1.67	1.47	1.50	2.92	2.18	36	1000	44.90	75.29	75.00
Belarus	Mean	0.10	2.06	1.65	1.65	1.81	1.93	1.60	0.84	125	1188	186.10	90.25	98.31
Bosnia and Herzegovina	Mean	0.05	1.97	1.36	2.19	2.26	1.79	2.24	0.39	73	100	50.40	88.85	88.30
Bulgaria	Mean	0.24	2.05	1.44	2.42	2.13	1.93	1.99	4.68	27	616	40.70	83.36	93.12
Croatia	Mean	0.01	1.67	1.79	1.73	1.47	1.42	1.37	1.05	39	196	37.10	93.60	92.19
Czech Republic	Mean	0.18	1.84	1.56	2.58	1.96	1.87	1.86	2.32	14	930	49.00	87.58	89.66
Estonia	Mean	0.25	1.49	1.89	1.89	1.48	1.26	1.18	0.48	11	104	50.20	98.00	93.63
Georgia	Mean	0.02	1.59	1.59	1.77	1.27	1.69	2.06	1.24	35	423	37.80	80.67	80.23
Hungary	Mean	0.07	1.57	1.77	1.71	1.59	1.53	1.42	1.71	24	304	59.30	89.12	90.99
Ireland	Mean	0.12	1.27	1.88	1.44	1.26	1.25	1.20	0.42	8	76	25.80	94.89	94.63
Kazakhstan	Mean	0.10	2.04	1.44	1.90	1.47	1.96	2.19	1.18	34	156	45.00	93.74	96.02
Kyrgyz Republic	Mean	0.08	2.91	1.12	2.52	1.78	2.32	3.85	2.25	89	204	67.40	86.46	88.24
Latvia	Mean	0.24	1.50	1.73	1.90	1.52	1.71	1.50	1.35	8	320	42.60	92.76	93.69
Lithuania	Mean	0.20	2.05	1.66	2.73	1.95	2.14	1.62	1.84	13	162	48.40	91.04	93.86
Macedonia, FYR	Mean	0.25	2.30	1.80	2.17	1.96	1.54	1.33	1.73	54	96	43.50	70.35	72.90
Moldova	Mean	0.13	2.01	1.57	1.77	1.72	1.69	1.85	0.94	44	250	48.80	88.87	91.57
Poland	Mean	0.16	1.83	1.61	2.13	1.99	1.72	1.78	1.07	43	175	38.40	88.50	87.03
Romania	Mean	0.16	2.00	1.74	1.84	1.79	1.52	1.46	0.59	89	198	48.90	92.10	92.12
Russia	Mean	0.20	2.51	1.36	2.41	1.87	2.67	2.41	2.96	70	256	54.20	84.79	88.24
Serbia and Montenegro	Mean	0.09	2.34	1.43	2.64	2.54	2.06	2.26	1.80	41	168	38.90	88.24	86.68
Slovakia	Mean	0.18	1.84	1.71	2.45	1.70	1.59	1.51	1.75	30	344	48.90	96.25	94.59
Slovenia	Mean	0.02	1.48	1.80	1.49	1.34	1.38	1.30	0.67	34	272	39.40	91.09	88.75
Spain	Mean	0.16	1.45	1.81	1.43	1.20	1.15	1.31	0.38	7	602	59.10	95.25	97.15
Tajikistan	Mean	0.24	2.50	1.18	2.48	2.09	2.64	3.45	2.62	55	224	87.00	88.48	94.70
Turkey	Mean	0.22	1.88	1.63	2.08	1.77	1.72	2.11	7.38	18	254	46.30	69.33	71.13
Ukraine	Mean	0.13	2.30	1.44	1.75	2.37	2.78	2.24	1.69	98	2185	60.30	86.52	88.33
Uzbekistan	Mean	0.04	2.50	1.17	2.13	1.33	2.96	3.21	1.00	130	152	122.30	97.50	97.12
Total	Mean	0.14	1.91	1.59	1.98	1.75	1.78	1.90	1.54	42	442	50.06	89.01	90.16

21

Table 2: Summary Statistics by Country- Continued

		Landreg_proc	Landreg_time	Landreg_cost	Labregs_hire	Labregs_hours	Labregs_rigid	Labregs_fire	Labregs_firecost	Labregs_hirecost	Size	Legal Status	Binary bribe Index
Albania	Mean	7	47	3.6	44	40	38	30	64.3	30.7	114.0	0.5	0.98
Armenia	Mean	3	4	0.4	33	40	31	20	13.0	17.5	47.7	0.3	0.80
Azerbaijan	Mean	7	61	0.3	33	40	38	40	21.7	22.0	81.5	0.3	0.86
Belarus	Mean	7	231	0.1	0	40	27	40	21.7	39.1	95.7	0.6	0.76
Bosnia and Herzegovina	Mean	7	331	5.0	56	40	42	30	33.2	15.2	110.2	0.4	0.87
Bulgaria	Mean	9	19	2.3	50	80	47	10	8.7	30.1	116.2	0.5	0.87
Croatia	Mean	5	399	5.0	61	40	50	50	39.0	17.2	173.8	0.5	0.51
Czech Republic	Mean	4	123	3.0	33	20	28	30	21.7	35.0	139.1	0.6	0.81
Estonia	Mean	3	51	0.7	33	80	58	60	34.7	33.5	71.6	1.0	0.68
Georgia	Mean	6	9	0.5	0	20	7	0	4.3	20.0	136.3	0.8	0.71
Hungary	Mean	4	78	11.0	11	80	34	10	34.5	35.2	131.7	0.8	0.53
Ireland	Mean	5	38	10.3	28	40	33	30	49.0	10.8	60.2	0.8	0.35
Kazakhstan	Mean	8	52	1.8	0	60	23	10	8.7	22.0	131.5	0.6	0.72
Kyrgyz Republic	Mean	7	8	1.9	33	40	38	40	17.3	24.5	128.6	0.5	0.90
Latvia	Mean	8	54	2.0	67	40	59	70	17.3	24.1	91.6	0.6	0.60
Lithuania	Mean	3	3	0.7	33	80	48	30	30.3	31.2	95.7	0.7	0.79
Macedonia	Mean	6	98	3.5	61	60	54	40	21.7	32.5	61.5	0.3	0.75
Moldova	Mean	6	48	1.5	33	60	54	70	28.8	29.0	118.3	0.8	0.74
Poland	Mean	6	197	2.0	0	60	33	40	13.0	21.4	95.3	0.6	0.67
Romania	Mean	8	150	1.9	33	80	51	40	3.0	33.3	118.5	1.0	0.70
Russia	Mean	6	52	0.3	33	60	44	40	17.3	31.0	204.1	0.7	0.88
Serbia and Montenegro	Mean	6	111	5.4	33	40	38	40	27.3	17.9	103.5	0.5	0.82
Slovakia	Mean	3	17	0.1	17	60	39	40	13.0	35.2	287.0	0.8	0.69
Slovenia	Mean	6	391	2.0	61	60	57	50	39.6	16.6	180.9	0.7	0.48
Spain	Mean	3	17	7.2	78	60	63	50	56.3	30.1	144.3	0.8	0.39
Tajikistan	Mean	6	37	2.0	33	20	31	40	21.7	25.0	117.0	0.6	0.88
Turkey	Mean	8	9	3.2	56	60	49	30	94.7	21.6	124.9	0.7	0.58
Ukraine	Mean	10	93	3.4	44	40	55	80	13.0	38.8	148.3	0.8	0.84
Uzbekistan	Mean	12	97	10.5	33	40	34	30	30.3	31.0	152.8	0.7	0.92
Total	Mean	6	93	3.6	34	55	42	38	27.3	26.4	120.9	0.7	0.68

Table 3: Correlations

Variable	Inform	Br - common	Br - taxmtg	Br - govcon	Br - safeinsp	Br - fireinsp	Br - taxinsp	Br - convalue	Taxpay	Taxtime	Taxrate
Inform	1.00										
Br -common	-0.02	1.00									
Br -taxmtg	0.00	0.49*	1.00								
Br - govcon	-0.02	0.45*	0.44*	1.00							
Br -safeinsp	-0.02	0.44*	0.50*	0.57*	1.00						
Br -fireinsp	-0.02	0.48*	0.52*	0.52*	0.72*	1.00					
Br -taxinsp	-0.03*	0.54*	0.82*	0.48*	0.54*	0.57*	1.00				
Br -convalue	0.03*	0.32*	0.28*	0.46*	0.25*	0.29*	0.30*	1.00			
Taxpay	-0.04*	0.26*	0.19*	0.03*	0.15*	0.22*	0.19*	0.00	1.00		
Taxtime	0.00	0.09*	0.14*	-0.01	0.13*	0.17*	0.12*	0.04*	0.37*	1.00	
Taxrate	-0.01	0.12*	0.07*	0.00	0.03	0.11*	0.07*	0.01	0.52*	0.30*	1.00
Taxreport_sales	-0.06*	-0.24*	-0.21*	-0.22*	-0.20*	-0.20*	-0.21*	-0.26*	-0.03*	-0.02	0.00
Taxreport_labor	-0.04*	-0.22*	-0.19*	-0.23*	-0.21*	-0.19*	-0.20*	-0.24*	-0.01	0.01	0.06*
Landreg_proc	0.03	0.18*	0.14*	0.01	0.11*	0.19*	0.13*	0.10*	0.55*	0.22*	0.14*
Landreg_time	-0.08*	-0.03*	-0.08*	-0.03*	0.03	-0.04*	-0.11*	-0.10*	0.31*	-0.10*	0.07*
Landreg_cost	-0.06*	-0.21*	-0.20*	-0.13*	-0.12*	-0.15*	-0.19*	-0.08*	-0.34*	-0.15*	-0.11*
Labregs_hire	0.04*	-0.04*	-0.06*	-0.03*	-0.03	-0.05*	-0.05*	0.02	-0.16*	0.15*	-0.09*
Labregs_hours	0.05*	-0.03*	-0.14*	-0.01	-0.02	-0.08*	-0.17*	0.01	-0.04*	-0.33*	-0.05*
Labregs_rigid	0.07*	-0.02	-0.13*	-0.05*	0.00	-0.04*	-0.14*	-0.03*	0.00	0.13*	-0.02
Labregs_fire	0.04*	0.03	-0.06*	-0.05*	0.05	0.06*	-0.06*	-0.09*	0.24*	0.35*	0.10*
Labregs_firecost	0.01	-0.14*	-0.14*	-0.07*	-0.11*	-0.15*	-0.09*	0.03*	-0.48*	-0.20*	-0.04*
Labregs_hirecost	0.06*	0.13*	0.01	0.04*	0.09*	0.13*	-0.02	0.08*	0.35*	0.41*	0.51*
Size	-0.07*	-0.03	-0.05*	-0.04*	-0.4*	-0.02	-0.04*	-0.01	0.02	0.01	0.02
Legal Status	-0.07*	-0.03*	-0.14*	-0.03*	-0.06*	-0.04*	-0.13*	-0.02	-0.01	-0.04*	0.03
Binary Bribe Index	0.04*	0.50*	0.62*	0.51*	0.49*	0.49*	0.51*	0.25*	0.21*	0.11*	0.09*

	Taxreport_sales	Taxreport_labor	Landreg_proc	Landreg_time	Landreg_cost	Labregs_hire	Labregs_hours	Labregs_rigid	Labregs_fire	Labregs_firecost	Labregs_hirecost	Size	Legal Status
Taxreport_sales	1.00												
Taxreport_labor	0.70*	1.00											
Landreg_proc	-0.13*	-0.10*	1.00										
Landreg_time	0.04*	-0.01	0.13*	1.00									
Landreg_cost	0.07*	0.05*	-0.21*	-0.01	1.00								
Labregs_hire	-0.04*	-0.03*	0.00	0.01	0.10*	1.00							
Labregs_hours	0.01	0.03*	-0.02	-0.09*	-0.01	-0.10*	1.00						
Labregs_rigid	-0.01	0.00	0.08*	0.04*	-0.03*	0.79*	0.33*	1.00					
Labregs_fire	0.03*	0.00	0.18*	0.17*	-0.19*	0.44*	-0.16*	0.71*	1.00				
Labregs_firecost	-0.11*	-0.13*	-0.24*	-0.12*	0.48*	0.45*	-0.07*	0.25*	0.01	1.00			
Labregs_hirecost	-0.04*	0.01	0.11*	-0.16*	-0.19*	0.02	0.37*	0.32*	0.24*	-0.25*	1.00		
Size	0.06*	0.06*	0.01	0.01	-0.02	0.01	0.01	0.02	0.01	-0.01	0.05*	1.00	
Legal Status	0.14*	0.15*	-0.02	-0.07*	0.10*	-0.01	0.17*	0.11*	0.07*	0.05*	0.15*	0.14*	1.00
Binary Bribe Index	-0.20*	-0.18*	0.14*	-0.01	-0.23*	-0.06*	-0.04*	-0.06*	0.00	-0.18*	0.12*	-0.07*	-0.08*

indicates significant t-test at the 10% level

24

Table 4: Characteristics of enterprises by financing preference

	Prefer Formal Financing	Prefer Informal Finance
Age Years *	16.5	14.7
% Foreign Owned	8.8%	10.6%
Size (# employees) *	132.7	49.6
Growth (% in employees)	6.1	2.4
Labor productivity (sales/#employees)	121.5	39.5
Assets (estimated replacement value of land equipment and buildings in USD) *	3774	1378
Exports * (% of sales exported directly or indirectly through a distributor)	12.9	8.2
% With Audited Financial Statements *	55.9%	44.2%
% Working Capital financed by Retained Earnings	41.7%	43.5%

indicates significant t-test at the 10% level

A Chi Squares test performed on the distribution of enterprises by legal status shows significant differences between the two groupings at the 5% level

Table 5: Corruption Regression
Dependent Variable: Prefer Informal to Formal Finance

Corruption Regressions	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises
	#1	#2	#3	#4	#5	#6	#9	#10	#11	#12	#13	#14	#13	#14
Size	-0.002	-0.031	-0.002	-0.034	-0.002	-0.031	-0.002	-0.03	-0.002	-0.03	-0.002	-0.035	-0.002	-0.03
	[3.56]**	[4.25]**	[2.23]*	[4.88]**	[3.58]**	[4.17]**	[3.56]**	[4.23]**	[3.58]**	[4.24]**	[2.25]*	[5.15]**	[3.58]**	[4.24]**
Legal Status	-0.351	-0.301	-0.54	-0.608	-0.361	-0.314	-0.356	-0.31	-0.355	-0.313	-0.535	-0.598	-0.353	-0.306
	[2.79]**	[2.20]*	[3.36]**	[2.80]**	[2.90]**	[2.37]*	[2.85]**	[2.29]*	[2.88]**	[2.33]*	[3.35]**	[2.78]**	[2.87]**	[2.28]*
Br-common	0.277	0.368												
	[1.42]	[1.72]+												
Br-taxmtg			-1.633	-1.582										
			[1.98]*	[1.81]+										
Br-convalue					0.153	0.149								
					[2.55]*	[2.37]*								
Br-safeinsp							0.213	0.223						
							[0.74]	[0.79]						
Br-fireinsp									0.454	0.457				
									[1.86]+	[1.90]+				
Br-taxinsp											0.604	0.695		
											[1.96]*	[2.13]*		
Binary Bribe Index													0.925	0.911
													[1.96]*	[1.65]+
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	3564	2246	2119	1287	3567	2249	3564	2248	3564	2248	2119	1287	3569	2251

Robust z statistics in brackets

+ significant at 10%; * significant at 5%; ** significant at 1%

Table 6: Tax Regressions
Dependent Variable: Prefer Informal to Formal Finance

Corruption Regressions	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Size	-0.002	-0.031	-0.002	-0.031	-0.002	-0.031	-0.002	-0.031	-0.002	-0.031
	[3.54]**	[4.29]**	[3.54]**	[4.30]**	[3.54]**	[4.27]**	[3.53]**	[4.38]**	[3.54]**	[4.28]**
Legal Status	-0.362	-0.318	-0.354	-0.306	-0.353	-0.301	-0.326	-0.29	-0.325	-0.285
	[2.87]**	[2.31]*	[2.81]**	[2.22]*	[2.77]**	[2.14]*	[2.74]**	[2.12]*	[2.56]*	[2.06]*
Taxpay	0.009	0.011								
	[1.74]+	[1.90]+								
Taxtime			0.011	0.024						
			[2.57]*	[4.81]**						
Taxrate					0	0.002				
					[0.10]	[0.46]				
Tax Report Sales							-0.009	-0.004		
							[1.11]	[0.31]		
Tax Report Labor									-0.023	-0.022
									[2.11]*	[1.75]+
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	3564	2246	3564	2246	3564	2246	3511	2201	3527	2222

Robust z statistics in brackets

+ significant at 10%; * significant at 5%; ** significant at 1%

27

Table 7: Land Regressions
Dependent Variable: Prefer Informal to Formal Finance

Corruption Regressions	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises	All Enterprises	Small Enterprises
	#1	#2	#3	#4	#5	#6
	-0.002	-0.03	-0.002	-0.031	-0.002	-0.03
Size	[3.54]**	[4.28]**	[3.56]**	[4.29]**	[3.53]**	[4.27]**
	-0.369	-0.326	-0.361	-0.314	-0.362	-0.318
Legal Status	[2.97]**	[2.43]*	[2.88]**	[2.31]*	[2.88]**	[2.30]*
	0.061	0.068				
Landreg_proc	[2.08]*	[1.95]+				
			0.097	0.13		
Landreg_cost			[2.03]*	[2.72]**		
					0.004	0.004
Landreg_time					[3.38]**	[3.09]**
Country FE	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y
Observations	3568	2250	3568	2250	3568	2250

Robust z statistics in brackets

+ significant at 10%; * significant at 5%; ** significant at 1%

Table 8: Corruption Regressions by Reported Sales Level
Dependent Variable Informal versus Formal Finance

Corruption Regressions	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises
	#1	#2	#3	#4	#5	#6	#9	#10	#9	#10	#9	#10
Size	-0.002	-0.003	-0.002	-0.004	-0.002	-0.003	-0.002	-0.004	-0.002	-0.004	-0.002	-0.004
	[2.02]*	[1.26]	[3.14]**	[2.36]*	[2.05]*	[1.28]	[3.09]**	[2.42]*	[3.10]**	[2.40]*	[3.12]**	[2.36]*
Legal Status	-0.49	-0.844	-0.253	-0.503	-0.481	-0.86	-0.253	-0.486	-0.251	-0.492	-0.244	-0.473
	[2.35]*	[2.25]*	[1.65]+	[1.52]	[2.33]*	[2.27]*	[1.62]	[1.57]	[1.62]	[1.56]	[1.60]	[1.54]
Br-taxmtg	-1.988	-0.87										
	[1.79]+	[0.73]										
Br-convalue			0.191	0.066								
			[1.80]+	[0.99]								
Br-taxinsp					0.799	0.325						
					[1.91]+	[0.70]						
Taxreport_sales							-0.035	0.007				
							[1.74]+	[0.15]				
Taxreport_labor									-0.056	0.009		
									[2.10]*	[0.24]		
Binary Bribe Index											0.93	0.946
											[1.46]	[0.84]
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1454	301	2442	517	1454	301	2442	519	2442	519	2442	519

Robust z statistics in brackets

+ significant at 10%; * significant at 5%; ** significant at 1%

Table 9: Regulation Regressions by Reported Sales Level
Dependent Variable Informal versus Formal Finance

Corruption Regressions	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises	Honest Enterprises	Dishonest Enterprises
	#15	#16	#17	#18	#17	#18	#17	#18	#17	#18	#17	#18
Size	-0.002	-0.004	-0.002	-0.004	-0.002	-0.004	-0.002	-0.004	-0.002	-0.004	-0.002	-0.004
	[3.09]**	[2.29]*	[3.11]**	[2.37]*	[3.10]**	[2.38]*	[3.11]**	[2.23]*	[3.12]**	[2.40]*	[3.11]**	[2.29]*
Legal Status	-0.247	-0.509	-0.248	-0.505	-0.256	-0.496	-0.249	-0.498	-0.249	-0.546	-0.245	-0.511
	[1.56]	[1.67]+	[1.59]	[1.64]	[1.65]+	[1.59]	[1.59]	[1.59]	[1.60]	[1.71]+	[1.57]	[1.63]
Busregcost	0.006	0.107										
	[0.23]	[2.56]*										
Landreg_cost			0.073	0.304								
			[1.66]+	[3.38]**								
Landreg_time					0.007	0.006						
					[4.42]**	[1.91]+						
Labregs_firecost							-0.002	0.04				
							[0.29]	[4.45]**				
Taxpay									0.007	0.03		
									[1.07]	[2.78]**		
Taxtime											0.012	0.022
											[1.91]+	[2.64]**
Country FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	2442	519	2442	519	2442	519	2442	519	2442	519	2442	519

Robust z statistics in brackets

+ significant at 10%; * significant at 5%; ** significant at 1%

Figure 1

Finance Sources by Enterprise Type