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**SME Access to Credit in Guatemala and Nicaragua:
Challenging Conventional Wisdom with New
Evidence**

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Abstract

This paper develops a conceptual framework and offers new statistical evidence on the access to credit by micro, small, and medium enterprises (MSMEs) in Guatemala and Nicaragua. To this end, and after reviewing the existing literature on the topic, it produces new empirical evidence drawn from the official Household Survey and the World Bank's Investment Climate Survey, conducted in both countries in 2006. The core contribution of the paper lies in the critical revision of three pieces of common knowledge, namely: (1) A large fraction of MSMEs has an excess demand for credit; (2) In the presence of credit market failures, governments must and actually do assist MSMEs in gaining access to loan facilities; and (3) Alternative credit instruments, such as leasing, factoring, microcredit, and third-party guarantee schemes, can be a suitable and massive solution for the lack of financing. Our analysis refutes to a large extent these assertions and advances some basic policy prescriptions that should help improve the resource allocation and impact of specific MSME financial programs.

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Introduction

Since the 1990s the financial and banking literature has underscored the crucial role that credit markets may play in spurring the birth and growth of productive enterprises (see Levine (2005) for a survey). A natural extension of this research has been a revived interest in the financing aspects of policies aimed to promote the development of micro, small, and medium enterprises (henceforth, MSMEs). In a nutshell, the story goes as follows. The financial intermediation process is highly inefficient owing to asymmetric information between lenders and borrowers. The problem stems from the fact that borrowers have better information and control over the projects and enjoy limited liability on their unpaid debts, encouraging debtors to disguise the actual risk (adverse selection), to apply the funds to riskier projects once the loan is disbursed (moral hazard) and to falsely declare default. As a conflict of interest unravels, the misinformed creditors react by raising the cost of capital and even rationing its supply, which in the end undermines the ability of both good and bad projects to tap financial markets. Because of their opacity and poor business records, MSMEs are bound to be the prime victims of this market failure, which thus calls for a significant dose of state policies and financial innovation.

In assessing MSME access to credit in Guatemala and Nicaragua, our paper puts forward and offers evidence on three hypotheses that go much against common knowledge in the field: first, the popular notion that MSMEs have a largely unmet demand for credit can be solidly refuted; second, government interventions can and do little to struggle with the alleged financial constraints faced by these firms; and, third, non-traditional credit vehicles –such as leasing, factoring, and third-party guarantees– are an optimal remedy to massively overcome the lack of financial access but are underutilized. Provocative as it may sound, we strongly believe that a realistic reformulation of the classical approach to MSME finance would be a healthy step towards much more powerful policies.

The paper is organized in three main sections: The conceptual underpinnings of our hypotheses, illustrated with some data for Guatemala, Nicaragua and other countries, are presented in Section 1. Section 2 contributes new statistical and econometric evidence based on data from the national household surveys conducted in 2006 in both

countries. The robustness of these findings is tested in Section 3 by going over comparable information collected by the World Bank's Investment Climate Survey. Some conclusions and recommendations wrap up.

Section 1: SME Finance: Confronting Conventional Wisdom with Facts

This section is intended to set the ground on which the Guatemalan and Nicaraguan cases will be developed afterwards in Section 2. For the sake of clarity, it will be divided into three subsections on: supply versus demand factors affecting MSME financial constraints, public interventions, and alternative credit instruments. Evidence will be cited along the way.

1.1 Access to Credit and Financial Constraints: Supply and Demand Factors

After a relentless research effort over the last three decades, some broad consensus has been built around the problems with MSME credit. Here is what we know (see, for example, IDB (2005) and Bebczuk (2007)):

- (a) Lenders suffer from the asymmetric information syndrome, in that they are unable to clearly distinguish good from bad credits. As a result, financial markets may refrain from providing them with fluid funding at low cost because MSMEs are less transparent and financial documentation (if existing at all) is less trustworthy compared to that of large firms;
- (b) Some MSMEs tend to engage in close and lasting relationships with banks as a way of coping with informational asymmetries – personal knowledge may act as a substitute for reliable documentation;
- (c) By making the borrower share the burden of default, guarantees serve the goal of mitigating the two main manifestations of asymmetric information: adverse selection and moral hazard. However, many MSMEs are unable to pledge the collateral that banks often require to grant a loan. Furthermore, the situation is compounded in countries where creditor legal protection is flawed and poorly enforced;
- (d) Loan appraisal, monitoring and collection entail substantial fixed costs, making small-scale lending even more expensive; and
- (e) MSMEs have a priori a higher probability of default, as they are not diversified, have no financial shoulders to endure temporary downturns, and in some cases lack a sound business plan. Given the low expected survival rate, interest rates are driven up by the associated costs for the bank to recover the loan or repossess collateral. Again,

the absence of agile and expedite judiciary ruling in this matter does nothing but inflate these expenses even further.

A major statement of this paper is that the conventional wisdom has been excessively concerned about supply over demand factors. The above list enumerates reasons why banks and other lenders would be indisposed to extend credit to this segment of firms, implicitly suggesting that a large number of MSMEs have good investment opportunities and would be willing to borrow in order to put such projects in motion, but they are unable to do so because credit is too costly or unavailable.

This belief overlooks the demand side of the credit market. From the perspective of the typical MSME owner, a battery of arguments backs up our position that in many circumstances financial debt may be profit- and welfare-reducing vis-à-vis internal funds, inducing in practice a scarce use of debt (see Bebczuk and Garegnani (2006) and the references therein):¹

(a) Asymmetric Information Premium: Imperfect information about the ability and willingness to repay leads lenders to charge higher interest rates, shorten the loan maturity, and shrink the loan size, so as to create a mismatch between financial needs and supply. By definition, the reinvestment of earnings is not exposed to these complications (provided, of course, that the firm has the capacity to generate and retain revenues).

(b) Procyclical Services: Unlike equity, debt contracts are based on a fixed interest rate independent of the project's return. This means that adverse shocks on costs or sales may push the borrower into financial distress or bankruptcy. This setback is magnified in the case of short-term agreements that allow the lender to periodically revise the interest rate. In the face of an adverse shock and the larger repayment risk involved, the lender is prone to increase the interest rate or even call off the loan. In other words,

¹ Many of the following arguments also hold for equity, but this rarely is a source of funds for a SME (or even for a big firm) in Latin America. Also note that some points, but not all, just rephrase the previous supply constraints. This happens because what we observe is the market clearing equilibrium between demand and supply, and so everything that affects the supply will affect the demand –provided these are well-behaved functions. For example, if lending costs go up (the supply curve moves to the left), equilibrium demand will shrink as well.

credit conditions harden when cheap credit is needed the most. Once again, the availability of internal funds is not hazarded by lender's behavior.²

(c) *Intermediation and bankruptcy costs*: Financial institutions charge for their service as intermediaries between savers and borrowers –this cost is reflected in the spread between the deposit and the loan interest rate. Likewise, the interest rate also embodies the expected cost of bankruptcy, that is, the legal and related expenses to repossess collateral or liquidate the company. On the contrary, internal funds are absolutely free from these costs.³

(d) *Suboptimal investment decisions*: A fully self-financed profit-maximizing entrepreneur will a priori take on projects with the highest net present value and the lowest risk. Under certain conditions, as a lender-borrower conflict arises, a leveraged firm may be inclined towards riskier projects (*asset substitution*) or passing up good investment opportunities (*underinvestment*); and

(e) *Formality and external control costs*: To become eligible for a loan from a formal institution, borrowers must meet a series of requirements, including certified bookkeeping, legal business licensing, and tax compliance. For an informal business, this would add steep costs. At the same time, creditors will feel entitled to watch over their money by exerting some influence over business decisions. Some owners may well be reluctant to relinquish power within the company (see LeCornu et al. (1996)), and thus debt will have a psychological disutility in these cases.

This invites the question as to what we understand by a financially constrained MSME. Strictly speaking, that would be a firm willing to use internal funds to undertake profitable projects but, lacking those funds, is unable to obtain capital at a similar cost (or at any cost, for that matter).⁴ In this way, we must disregard cases where credit: (i) is not used because of insufficient demand – some firms may not need external funding, be it due to lack of good investment opportunities or to adequate internal funding; or (ii) is not used because the entrepreneur chooses not to issue debt even when experiencing a shortage of internal funding; and (iii) is over-used because of moral hazard –some firms

² Internal funds are also procyclical but, being a form of equity, it does not create any fixed obligation for the entrepreneur that could lead to bankruptcy.

³ Although they do not involve any intermediation cost, internal funds have an opportunity cost, and a potential misuse of internal funds could occur when the entrepreneur underestimates it.

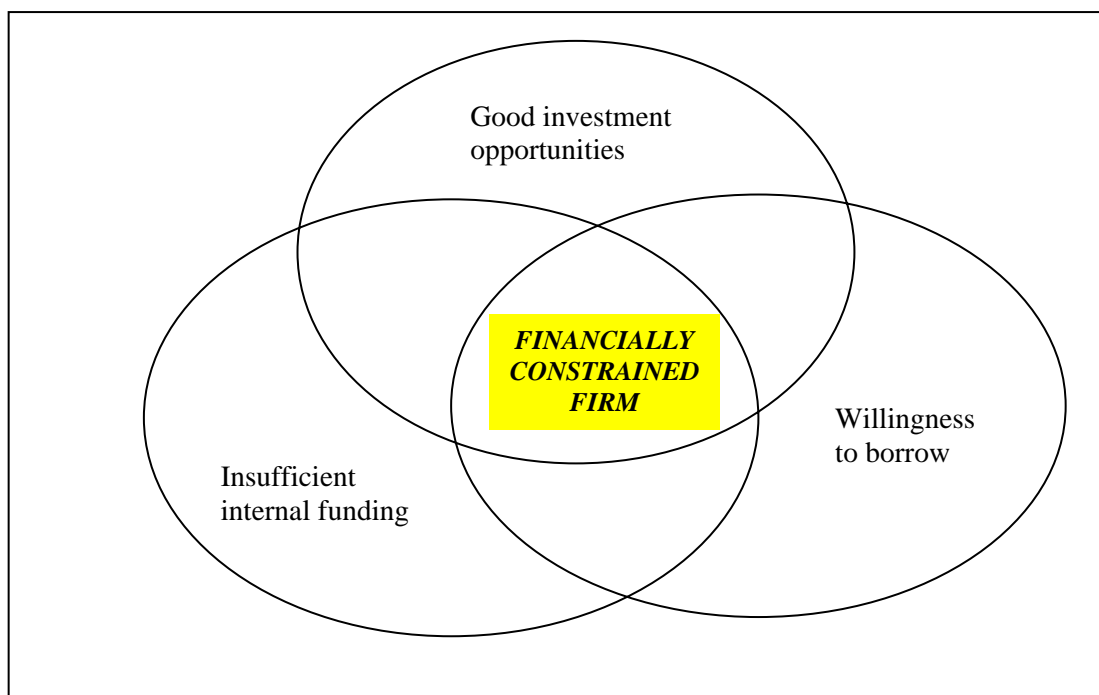
⁴ In a more general setup, the financial constraint should be characterized in a broader sense to include all credit conditions, namely: amount, interest rate, maturity, and collateral, all of which will be discussed throughout the paper.

may borrow to develop projects that they would not with their own money, so as to take advantage of their limited liability. Figure 1 is a graphical representation of the subset of financially constrained firms, which corresponds to the area where the three sets intersect. Conversely, the usual practice tends to overestimate the number of firms in this situation by including the pairwise intersections. A fundamental point to stress is that, strictly speaking, we will be concerned about access to credit and not about credit constraints. This is a subtle but critical difference: the access to credit issue asks about who applies and obtains credit, and inquires the reasons behind it; the financial constraint issue asks about who has a good project and then applies and obtains credit. The difference, as illustrated in Figure 1, is that our investigation on access to credit leaves aside the question as to whether the enterprise has a profitable project.⁵ In other words, a financially constrained enterprise necessarily has a limited access to credit, but the reverse is not necessarily true -for example, a firm that is turned down by a bank but has no valuable project has restricted access to credit but it is not credit constrained.

It is important to notice that related World Bank work on financial access in Latin America employs a different definition of financial constraint that is akin to our operational definition of lacking access to credit. For example, Love (2007) resorts to the Investment Climate Surveys to label as Constrained those firms that: (1) applied for a loan but have been rejected, or (2) have not applied for a loan for reasons other than “don’t need a loan”.

⁵ This is actually the classification criterion adopted by the pioneering empirical work on financial constraints by Fazzari, Hubbard, and Petersen (1988), which had a widespread influence on the scholar approach to this topic (see also Hubbard (1998) for a survey). They test the presence of financial constraints by running a regression of investment expenditures on firm’s cash flows, but controlling for growth opportunities, proxied in their analysis by Tobin’s q.

Figure 1: Financially Constrained Firms



Profuse international evidence piles up in favor of a more balanced consideration of supply and demand forces. Beginning on a general note, current levels of financial development are consistent, *prima facie*, with a low participation of the populace at large in the banking system.⁶ Beck, Demirguc-Kunt, and Martinez Peria (2007) display financial outreach indicators, showing that the number of loans for 1,000 people is 45.8 and 95.6 for Guatemala and Nicaragua, against an average of 131.4 in LAC and 321.2 in industrial economies.⁷

⁶ An imperfect and often misleading measure of financial depth is the ratio of credit to the private sector to GDP, as it may not accurately reflect how many people actually hold financial instruments. In any case, it keeps some correlation with the figures in the text. As of 2006 (2005 in the case of Nicaragua), this ratio was 24.9% in Guatemala and 24% in Nicaragua, with an average of 33.3% and 121.4% for LAC and high income countries, respectively. The data comes from the World Bank Financial Structure Database, October 2007 version.

⁷ Since a large number of people may have more than one loan, this indicator may overestimate the actual number of borrowers.

⁹ Interestingly, Beck, Demirguc-Kunt and Maksimovic (2004 a,b), document, on the basis of the 1999 World Business Environment Survey, that a small sample of 32 firms in Guatemala and 44 in Nicaragua graded financial constraints as an obstacle for growth at 3.06 and 3.22 on a scale of 1-4 (with a 54-country average of 2.87). However, these figures might be biased upward due to the so-called “pessimism” effect, by which entrepreneurs may tend to complain in excess, especially if they expect the survey results to be taken in consideration in the design of future promotion policies. At any rate, the discrepancy with the message in the main text is worth further research. For instance, the ratio of external financing is strikingly high when compared to other data sources. Our evidence in Sections 2 and 3 forcefully contradict these findings.

The preference for internal funds over debt and equity is a conspicuous stylized fact for all firms. To sustain this point, we can cite some recent work on investment financing. First, for a sample of 15 OECD countries over 1970-2003, Bebczuk and Garegnani (2006) compute a corporate self-financing coefficient, equal to the ratio of corporate saving to investment, calculated for the aggregate of all domestic firms. The average for the whole sample is 91.25%, implying that for each dollar invested, 91.25 cents came from retained earnings and just 8.75 cents from external funding (debt and equity). Second, for the seven largest Latin American countries, Bebczuk (2003) estimates with a flow-of-funds methodology that the self-financing ratio was 81% in 1990-1996. Figures for transition countries produced by EBRD (2006) set this ratio between 62.4% to 77.3% in 2000-2005.

Regarding the specific SME case, Grant Thornton (2003) runs a large survey of SMEs in 19 industrial and developing countries, and concludes that only 23% of all respondents said that the shortage of working capital was a constraint for their ability to grow. The percentage falls to 20% when asked about long-term capital. In a survey in transition countries, 67.4% of small firms declared not having any bank loan, but only 30.4% admitted needing one (see EBRD (2006)).⁹ In turn, based on a survey of 1,200 industrial SMEs in Argentina, Observatorio Pyme (2006) shows that only 8% of the investment expenditures is financed with bank credit, while self-financing represents 83%.

An interesting contribution is FELABAN (2007), which surveys 85 banks in more than 20 Latin American and Caribbean (LAC) countries asking for their SME loan policies. A table from the survey is reproduced next:

Table 1
SME Loan Policies of Banks in LAC Countries: Survey Responses

Do you consider the following as very important barriers for granting a loan to a SME?	In % of total responding banks
Lack of financial solvency	67
Informality	53
Lack of collateral	52

Unreliable accounting statements and lack of transparency	44
High administrative cost	34

Source: FELABAN (2007).

The table portrays the relative weight banks attach on average to some eligibility requirements. From a quick look, they all are in line with the barriers identified at the start of this section. But, in a second look, it illustrates subsequent issues raised throughout the section: first, none of these factors are unanimously qualified as “very important” (for example, operating in the informal economy is reported in this category by just about half of the respondents); second, the ranking of the answers suggests that banks are aware of the characteristics of the sector and have more lax requirements for a SME than it would have with a large firm (which is consistent with the relationship-based loan arrangements with smaller borrowers); finally, the top factor is the lack of financial solvency, which, in terms of our previous discussion, means that banks are more likely to reject a client on the basis of the project’s productive quality rather than on other legal-wise requirements.

An associated debate raised by the previous discussion, and present throughout the whole paper, is whether the incontestable bias towards self-finance is a consequence of weak demand or scarce supply of funds. It is well-known that the only directly observable figure is the equilibrium between supply and demand, and it is extremely difficult to disentangle one from the other. However, even without further research, it seems unlikely that the facts described so far are solely explained by supply factors, as sometimes implied in some credit policy analyses that emphasize that firms are willing to take debt but are just discouraged by burdensome administrative requirements and onerous application procedures. While acknowledging that a clear-cut identification of supply and demand factors remains an unsolved empirical challenge, our take is that demand factors play a more significant role than is usually thought. In this regard, we call attention towards the following: (a) The literature on capital structure strongly highlights that demand factors are key in explaining the low debt to assets ratio in cross-country studies (see Myers and Majluf (1984) for the seminal theoretical article, Bebczuk (2003) for a textbook exposition, and Mitton (2006) for extensive evidence on Latin America); and (b) Supply barriers should be much more pervasive in the case of

MSME (which are more opaque than big firms) and of developing economies (which have more shallow financial systems). However, the fact that the reliance on internal funds seems to be a worldwide phenomenon affecting all kinds of enterprises reinforces the hypothesis that demand factors are anything but negligible drivers of financing decisions.

1.2 SME Credit and State Intervention

Asymmetric information represents a market failure, in that risky and dishonest borrowers create a negative externality on safe and honest ones. As with any market failure, some state intervention may be warranted via the regulatory regime and, more directly, through the ownership of commercial banks.¹⁰ As a matter of fact, the financial industry is one of the most regulated activities around the world, on the grounds that it is the government's duty to monitor banks' moral hazard behavior so as to protect small and uninformed consumers and to prevent the systemic effects of financial instability.¹¹ While a widely accepted intervention, critics point to the strong assumption that regulators are benevolent and able to undo the potential wrongdoing of private agents (see Barth, Caprio and Levine (2003) for arguments and cross-country evidence). A similar controversy surrounds the operation of state-owned banks. Private banks may refuse to serve some clienteles because they are too difficult to screen and monitor, or because intermediation costs are prohibitively high. Small and young firms, as well as the population living in poor and distant regions, are hence likely to be excluded from formal credit markets unless they are served by socially-oriented public banks. Nonetheless, a usual caveat is that public banks suffer from severe agency problems themselves, as they are subject to distorting political interference, have managers appointed based on political connections rather than on professional skills, lack performance-linked remuneration structures, and enjoy some degree of regulatory forbearance. These conditions incubate socially harming actions, such as corruption, state capture, and soft-budget constraints. In the absence of the right incentives, proper

¹⁰ Other forms of intervention are the creation of second-floor financial institutions, the enactment of bankruptcy laws, and the creation of public credit registries.

¹¹ The desire to promote particularly strategic sectors from a policy point of view or to smooth business cycles are additional arguments in favor of the public ownership of banks, although these are considered as old-fashioned and obsolete by modern economics.

accountability, transparency and checks and balances, these institutions are unlikely to perform as expected. The evidence supports this negative view. For instance, the public ownership of banks is associated with subsequent low financial development and income growth (La Porta et al. (2002) and Galindo and Micco (2003)) and a higher probability of crisis (Beck et al. (2003)). Descriptive and anecdotal evidence for Latin America reinforces the judgment that public banks make a dubious contribution to solving credit market failures, as programs have small budgets and unacceptable standards of disclosure and impact evaluation (see Bebczuk (2007)).

Unlike other many countries where public banks still retain a significant market presence, they play no role in Guatemala and Nicaragua. After bold financial reforms in the 1990s, all public banks were privatized in Nicaragua, and the only standing one in Guatemala (Banco Crédito Hipotecario Nacional) has a 1.95% market share –measured by total assets- in 2006 (for an account of recent developments in banking sector structure, see Balsells (2007) on Guatemala and Ansorena (2007) on Nicaragua).¹²

Lacking this backbone of public intervention in the credit market, it might have been the case that other non-financial government offices have taken over the task by offering not only direct credit facilities but also interest rate subsidies, guarantee schemes, and other supporting financial mechanisms. However, according to recent IDB research on LAC countries, active policies have a negligible outreach (see Angelelli, Roudry and Llisteri (2006) and Angelelli (2007)). Table 2 reports the central features of the organisms in charge of SME promotion in Guatemala and Nicaragua, which eloquently shows that these programs have tight budgets, small staffs, and marginal resources (US\$ 1 million in Guatemala and no program whatsoever in Nicaragua).¹³

¹² It must be noted that the Nicaraguan Congress approved in late 2007 the creation of a new state bank, *Banco de Fomento de la Producción*. The plan is to have this new institution operating in 2008. National budget resources for US\$9.5 million during 2008-2011 would be available to grant credit to micro and small producers. The senior management would be appointed by the Congress, with a Board composed by several national ministers.

¹³ Table 3 below, taken from Beck, Demirguc-Kunt and Maksimovic (2004), reports that development banks contributed in 1999 with 2.63% and 7.64% to the financing of investment expenditures in a sample of 32 and 44 firms in Guatemala and Nicaragua, respectively. Later on, we will present updated data from much larger samples.

Table 2
SME Promotion: Government Offices in Guatemala and Nicaragua

	Guatemala	Nicaragua
Institution	Vice Ministerio de Desarrollo de la MIPYME	Instituto Nicaragüense de Apoyo a la Pequeña y Mediana Empresa
Functional Dependency	Ministry of Economy	Ministry of Industry and Commerce
Operational Dependency	Operates within Ministry	Independent
Year Established	2000	1994
2005 Budget	US\$ 1.53 million (0.005% of GDP)	US\$ 0.99 million (0.02% of GDP)
Employees	70	60
Is there a SME Law?	No	No
Ongoing Support Programs	Desarrollo institucional y de políticas de apoyo a la MIPYME (US\$ 0.9 million, 0.03% of GDP)	None

Source: Angelelli, Roudry and Llisteri (2006) and Angelelli (2007).

The preliminary conclusion is that, in sharp contrast with the widespread official rhetoric about boosting the MSME sector, concrete initiatives are scarce and usually ill-conceived. It remains to be seen what the feasible scope is for further efforts in the area in countries with structural fiscal difficulties, multiple unattended social priorities, and questionable resource allocation within the public sector.

1.3 Alternative credit instruments

In the face of asymmetric information, the most radical remedy from the lender's standpoint is the posting of collateral, as it eradicates repayment risk regardless of the project's outcome or the potential borrower's misbehavior. Also to the advantage of the lender, collateralized transactions involve low costs and effort compared to the other strategies.¹⁴ However, from the borrower's side, an evident obstacle arises once many firms with good investment opportunities do not possess tangible capital to pledge.

Ultimately, traditional loans suffer from serious drawbacks that have led market players to come up with other contracts to make lending to these groups viable. To distinguish them from traditional loans, we label as non-traditional or alternative credit instruments a number of contracts including the following: leasing, factoring, credit guarantee schemes, and microcredits. A *lease* is an agreement under which a property owner transfers the use of the property for a specified period of time. In a *factoring* transaction, a firm simply sells its account receivables at a discount to a financial intermediary (the factor). The seller benefits from transferring and prematurely cashing invoices typically repayable at least a month after being issued. The intermediary, besides getting a service fee, ends up facing the credit risk of the buyer, in spite of having dealt with the seller. Since many times the seller is a small firm and the buyer a big and reputable one, factoring is a risk-containing strategy for the factor. The various *credit guarantee schemes* are arrangements under which a third party commits itself to partially or totally cover lender's losses in case of default. The guarantor can be a public or private entity. Finally, *microcredits* are small scale loans extended on the basis of a specific lending technology. As we will argue shortly, all these products, while different from traditional loans, may and are partly intermediated by commercial banks along with specialized intermediaries.

Beyond their seeming differences, this variety of instruments share one feature in common: they break the link between borrower's risk and repayment risk by providing

¹⁴The effectiveness of collateral crucially hinges on the quality of the creditor legal protection framework and its enforcement.

different credit enhancements. This amounts to say that they embody different and innovative forms of collateral.¹⁵

Microcredit is slightly different to the other instruments. As mentioned earlier, banks are especially well equipped to establish close lending relationships. The resulting better knowledge about expected cash flows, but especially the entrepreneur's character, helps banks to struggle with their informational handicap. Microfinance institutions take fuller advantage of these relationships than traditional banks. Given their proximity to the borrowers and a smaller and more manageable loan portfolio, these institutions are able to better screen and monitor their clients. Adding to this, the microlending technology encompasses an array of incentive devices to ensure debt repayment, such as group lending (all borrowers within each group are held responsible if any member defaults, creating peer pressure and reputational costs), progressive schemes (performing borrowers are granted increasing amounts and terms in subsequent rounds of borrowing), and short-term, revolving lending. In a sense, these incentives work as intangible collateral.

Nevertheless, at odds with the described mutual benefits, we do not witness, from the scarce information available, an intensive use of these credit vehicles in Nicaragua and Guatemala. Data on leasing are drawn from Beck, Demirguc-Kunt and Maksimovic (2004 a, b), in turn based on the 1999 World Business Environment Survey, which covered more than 4,000 firms (80% SMEs) in 54 countries.¹⁶ Table 3 shows that leasing constitutes 2.78% and 0.91% of investment financing in Guatemala and Nicaragua, not far away from the world sample average of 2.63%.¹⁷

¹⁵ It is worth noting that, as a matter of fact, most of these instruments do not entail credit in the sense of financing activities that, after a while, will produce cash flows. Instead, they just provide liquidity, by transforming illiquid (but already produced, and sometimes sold) goods and services into cash. Nevertheless, such a service is extremely valuable for a large number of entrepreneurs.

¹⁶ Unfortunately, Guatemala and Nicaragua are not surveyed in two major international reports on factoring (*Factor Chains International*) and leasing (*Global Leasing Report*).

¹⁷ It is possible, but still unlikely, that leasing and factoring might be misclassified as bank loans, once they may be considered as collateralized and discounting operations, respectively. We looked at Central Bank data on total loans broken down by credit line, but in neither country those operations are recorded separately from other bank loans.

Table 3
Financing Sources of Firms (in %)

	Guatemala (N=32)	Nicaragua (N=44)	Whole Sample (N=3,000)
<i>External Finance to Investment</i>	57.34	56.70	40.90
Bank	28.38	19.32	19.0
Equity	1.09	1.36	5.57
Leasing	2.78	0.91	2.63
Supplier Credit	18.72	15.23	6.72
Development Banks	2.63	7.64	3.82

Source: Beck, Demirguc-Kunt, and Maksimovic (2004a, b)

However, taking Latin America as a benchmark, the microcredit industry is relatively developed in both countries. According to data from Microfinance Exchange Mix for 2006, there are 33 microfinance institutions (MFIs) in Guatemala with 465,000 borrowers (3.7% of total population). In Nicaragua, 514,000 clients (10% of population) are served by 30 MFIs. The whole market in LA comprises 584 MFIs with a portfolio of 11.2 million people (2.8% of population).

Regarding leasing, factoring and similar instruments, the scarce use should be traced back to the following elements:

(a) ***Instrument specificity***. Bank loans can be allocated to various ends agreed upon writing the contract (purchasing new capital, paying for debts or short-term liabilities, and so on). The other instruments do not enjoy such versatility, which in turn restricts their massive use. Factoring is an option only to firms that are suppliers of big companies. Leasing is only helpful for firms willing to purchase certain capital goods. Consequently, these products cannot be expected to become a universal answer to the lack of access to credit, as they are not suited to meet some basic financial needs.

(b) ***Demand awareness***. One apparent bias in MSME financing policies is that they do not seem to care or be aware of credit opportunities beyond traditional loans. For example, in a 2007 survey on 206 Nicaraguan SMEs, 74.3% acknowledged not knowing what factoring is. While it might be claimed that this search is time-

consuming, it is clear that internet capabilities have turned this argument obsolete to a great extent. Some behavioral inertia might be at work, especially for the less sophisticated entrepreneurs, for whom loan contracts are more familiar and simpler to understand than other contracts. Insufficient dissemination of private and government-sponsored credit programs adds to the problem.

(c) *Market structure.* In bank-centered financial systems, including Guatemala and Nicaragua, independent factoring, warrant and leasing companies are most likely deprived from adequate funding. Of course, banks are allowed to and in fact develop these lines of business within the bank unit or through a subsidiary. But this does not mean that banks actively pursue them. The FELABAN (2007) survey finds that only 24% and 15% of the responding 85 LAC banks offer SMEs leasing and factoring services, respectively (see Table 4).

Table 4
Credit Services offered by LAC banks to SMEs

What credit facilities do you offer to SMEs?	In % of total responding banks
Mortgage	62
Other Loans	58
Overdraft	55
Discounting	42
Financial leasing	24
Factoring	15

Source: FELABAN (2007)

Further investigation is required to assess the incentives banks have to lend through credit lines different from standard loans. Also, a deeper investigation should be carried out to evaluate whether regulatory and tax obstacles hamper the development of these instruments. Unfortunately, specific information on these markets in Nicaragua and Guatemala is notoriously scarce.

Section 2: New Empirical Evidence for Guatemala and Nicaragua

In this section we present newly produced evidence on access to credit in Guatemala and Nicaragua, relying on data drawn from the national household surveys conducted in 2006. The main virtues of this dataset are that it was collected very recently, covers a very large sample of enterprises, and the content of the questionnaire matches very closely the purposes of this study. Our approach will combine a preliminary data description with some multivariate regression analysis afterwards. The discussion will focus on firms with less than 20 workers, because the sample of larger firms, that appears in the descriptive tables only for completeness, is small and thus scarcely representative.

Before proceeding, it is important to highlight the scope and caveats of the subsequent analysis. The central concern of our study is describing salient patterns in the number of firms that ask for credit (the demand side of the market) and how many of them are granted a loan and many are rejected by the lender (the supply side of the market). Although this research question may look trivial on the surface, the lack of statistical data and some popular but mistaken statements about credit access turn this issue into a fascinating research subject and an extremely relevant point in the financial policy agenda. An important clarification, though, is that denied access to credit is a weak proxy for financial constraints, as it ignores the underlying characteristics of the entrepreneur's project. According to our earlier definition, a rejected loan application implies the presence of a financial constraint only if one can make certain that the applicant had a valuable investment opportunity. Our study does not test for the presence of financial constraints, albeit it sets the ground on which such an investigation should build on.

2.1. Descriptive Statistics

Table 5 shows the main survey questions on access to credit for Guatemala. The sample comprises 5,866 enterprises, of which 5,687 have up to 5 workers (micro enterprises), 168 between 6 and 20 (small enterprises), and just 11 between 21 and 91 workers (medium enterprises). The first confirmatory evidence of our earlier premises is that only 765 enterprises (13% of the total sample) applied for a loan. Within this subset,

only 57 (7.5% out of the 765 applications) were rejected by the lender. Although such low rate of rejection –which is a uniform fact across the three firm size groups- might sound strange, it just reveals self-selection –in general, are the good clients the ones approaching the financial system.¹⁸

Upon noticing that 5,101 firms (87% of the whole sample) just decided not to resort to external funding, it is extremely interesting to examine the reasons invoked for not applying for a loan. A majority of firms declare a preference for internal funding (49.2% of the total sample) and no need for a loan (23.7%). Jointly, these constitute 72.6% of total responses for the firms with 1-5 workers and 84.6% for those with 6-20 employees. They likely reflect lack of demand, although the loose wording of the question makes it difficult to determine whether this is consequence of poor investment opportunities and/or reluctance to get indebted. It might even capture some supply-side forces, as the declared preference for internal finance may be driven by cumbersome or costly loan application procedures.¹⁹ Based on Figure 1 and the accompanying discussion in Section 1, firms providing such answers do not qualify as financially constrained, as neither are those claiming inability to repay, too high interest rates, or having an outstanding debt. These firms, which represent 3.5% of total, are most likely firms with unpromising or risky projects.

The only category that might point toward a financial constraint is “*People like me do not get credit*”, which is the answer of 22.9% of the respondents. In principle, it could be hinting that these entrepreneurs envisage that they will not meet the informational requirements imposed by the bank and hence they exclude themselves. But for this to be labeled as a financial constraint, one should make sure that the entrepreneurs actually have profitable projects, which is a bold assumption in light of the blurry question formulation.

¹⁸ See Bebczuk (2004) for Argentina and, for Guatemala, the Micro and Small Business Survey conducted in 2006 by the Ministry of Economy.

¹⁹ Regrettably, the questionnaire does not include a specific item dealing with the typical supply barriers (excessive documentation requirements, high fees, etc.). However, respondents had the *Other* option to express concerns about these obstacles, but it has a virtually nil weight in total responses. What is more, it is doubtful that “Prefers working with his or her own resources” is not a demand argument but a disguised supply constraint statement.

Regarding lender's rejection (57 cases), the motives are low income (21%), lack of collateral (9%), and failure to meet the lender's requirements (70%). Prima facie, the two last ones suggest supply-side constraints, although more specificity would be desirable about lender's requirements in order to establish whether they imply unfair treatment. For example, it is not the same being rejected because of lack of a credit track record (which is likely to happen in new or self-financed firms) or because of lack of a business plan (which is a legitimate argument to deny a loan).

Table 5
MSME Access to Credit in Guatemala

	Number of Employees			Total
	1 a 5	6 a 20	21 a 96	
Number of enterprises in the sample	5,687	168	11	5,866
Number of enterprises that applied for a loan	723	39	3	765
Number of enterprises that obtained a loan	668	37	3	708
Number of enterprises that were refused a loan	55	2	0	57
Number of enterprises that did not apply to a loan	4,964	129	8	5,101
In % of total sample:				
Enterprises that applied for a loan	12.7	23.2	27.3	13.0
Enterprises that obtained a loan	11.7	22.0	27.3	12.1
Enterprises that were refused a loan	1.0	1.2	0.0	1.0
Enterprises that did not apply to a loan	87.3	76.8	72.7	87.0
Total	100.0	100.0	100.0	100.0
Reasons for not applying for a loan (in %)				
Prefers working with his or her own resources	49.0	56.6	75.0	49.2
There was no need	23.6	27.9	25.0	23.7
People like them do not get credit	23.3	8.5	0.0	22.9
Already has an outstanding debt	0.9	3.9	0.0	0.9
Cannot repay the loan	1.6	1.6	0.0	1.6
The interest rate is too high	1.0	1.6	0.0	1.0
Other	0.6	0.0	0.0	0.6
Total	100.0	100.0	100.0	100.0
Reasons for not having obtained the loan (in %)				
Lack of collateral	9.1			8.8
Low income	21.8			21.1
Does not meet the requirements	69.1	100.0		70.2

Source: Own elaboration based on National Household Survey 2006.

The loan features are displayed in Table 6. Notice that the sample includes not only the 765 households that got a loan during the 12 months previous to the survey but also those who did it earlier than that, increasing the sample to 795. This, by the way, indicates that only 13.6% (795 out of 5,866) of enterprises have any debt at all. The

three main financial sources are private banks (39%), credit cards (23.1%), and friends and relatives (20.8%). Government programs, with 3.5%, and NGOs, with 2.8%, make a modest contribution, against the presumption that economic units affected by informational problems are financially assisted by non-market mechanisms. A clear distinction, though, exists between micro (1-5 workers) and small firms (6-20 workers) in that the latter exhibit a higher proportion of formal sources, like private banks and credit cards (79.1% against 61.1%), and a lower share of alternative sources (informal lenders, government, NGOs, friends and relatives).

The loan size of small firms is 3.7 times that of micro firms, and face lower interest rates (27.4% vs. 35.5%), longer terms (2.4 vs. 1.9 years), and lower commissions (4.2% vs. 1.8% of the loan value, reflecting the already mentioned fixed lending costs). Most firms are required collateral (79% for the whole sample), but only 37% pay a commission. In 58.2% of the cases the loan is allocated to business expenditures, as opposed to households ones. Finally, consistent with our earlier discussion, just 34.2% of the enterprises state that they would have wanted a bigger loan, making the concept of financial constraint even more controversial.

It might also be surprising that loan conditions (interest rate, maturity, commission), yet worse than those available to big firms, are far from the abusive terms frequently heard of in media and professional reports. A plausible explanation is the self-selection phenomenon, once this subsample is most likely composed by sound enterprises with good projects.

Table 6
Loan Features in Guatemala

Enterprises with a loan	Number of Employees			
	1 a 5	6 a 20	21 a 96	Total
Number of enterprises	749	43	3	795
Source of the Loan (in %)				
Private Bank	38.9	41.9	33.3	39.0
Government Program	3.6	2.3	0.0	3.5
Credit Card	22.2	37.2	66.7	23.1
Informal lender	4.3	2.3	0.0	4.2
Credit Card	0.1	0.0	0.0	0.1
Friends and relatives	21.2	14.0	0.0	20.8
Empresa donde trabaja	0.7	0.0	0.0	0.6
Empresa comercial	2.9	0.0	0.0	2.8
NGO	2.8	2.3	0.0	2.8
Others	3.3	0.0	0.0	3.1
Loan Amount (in quetzales)	14,543	53,334	37,000	16,726
Collateral (Yes = 1, No = 0)	0.78	0.91	1.00	0.79
Loan Term (in years)	1.9	2.4	2.5	1.9
Annual Interest Rate (in %)	35.5	27.4	22.3	34.9
Comission (Yes = 1, No = 0)	0.36	0.56	0.67	0.37
Commission Cost (in quetzales)	612	958	425	638
Commission to Loan (in %)	4.20	1.80	1.15	3.82
Use of the Loan				
Business Expenses	58.1	62.8	33.3	58.2
Household Expenses	41.9	37.2	66.7	41.8
Would have wanted a bigger loan? (Yes =1, No =0)	34.71	25.58	33.33	34.21

Source: Own elaboration based on National Household Survey 2006.

Tables 7 and 8, for firms with 1-5 and 6-20 workers respectively, split the sample according to whether entrepreneurs applied for a loan and obtained it. Within the micro enterprise group, applicants, either successful or not, seem to be better educated, living in urban areas, enjoying a higher total and hourly income, having more access to remittances from abroad, and working in non-agricultural activities. Of course this is just a preliminary observation based on simple averages, and thus it will be put to the test later on with econometric techniques. No major differences are found in house ownership, household composition, age, or gender. Also striking is that, in the small firms group, applicants and non-applicants are not distinguishable at first sight.²⁰

²⁰ Because the sample is too small (there are just 2 small firms that did not get the loan) we will not pursue the comparison between successful and unsuccessful applicants in the segment of firms with 6-20 workers.

Table 7
Entrepreneur and Household Characteristics
 Firms with 1-5 workers in Guatemala

Enterprises with 1 to 5 employees	Applied for a loan	Did not apply for a loan	Obtained the loan	Did not obtain the loan
Number of Enterprises	723	4,964	668	55
Characteristics of the Entrepreneur				
Gender (1=male, 0=female)	0.81	0.81	0.81	0.84
Age	45.2	48.2	44.9	48.9
Education (*)	1.5	1.0	1.5	1.3
Marital Status (1=married, 0=other)	0.83	0.81	0.83	0.76
Number of Children below 18 years old	2.3	2.2	2.4	1.9
Household Size	5.4	5.2	5.4	5.4
Residence (1=urban, 0=rural)	0.44	0.34	0.44	0.40
Residence (1=Managua, 0=other)	0.07	0.05	0.06	0.13
Total Annual Household Income (in quetzales)	5,543	3,576	5,661	4,111
Annual labor income of the entrepreneur (in quetz.)	3,041	1,756	3,131	1,949
Weekly Hours Worked	44.2	41.8	44.5	40.2
Hourly Income (in quetzales)	14.8	9.6	15.0	12.7
House Ownership (1=Yes, 0=No)	0.85	0.87	0.86	0.71
Main Activity (% del total cases in the sample)				
Agriculture	43.3	58.4	42.7	50.9
Low Technology Manufactures	6.2	6.2	6.6	1.8
Rest of Manufactures	5.4	3.2	5.7	1.8
Wholesale and Retail Commerce	27.5	19.7	27.3	30.9
Other Sectors	17.6	12.5	17.8	14.6
<i>Total</i>	100.0	100.0	100.0	100.0
Receives remittances from abroad (1=Yes, 0=No)	12.7	11.9	13.0	9.1

(*) Illiterate =0, primary incomplete=1, primary complete=2, secondary incomplete=3, secondary complete=4, superior incomplete=5, superior complete=6.

Source: Own elaboration based on National Household Survey 2006.

Table 8
Entrepreneur and Household Characteristics
 Firms with 6-20 workers in Guatemala

Enterprises with 6 to 20 employees	Applied for a loan	Did not apply for a loan	Obtained the loan	Did not obtain the loan
Number of Enterprises	39	129	37	2
Characteristics of the Entrepreneur				
Gender (1=male, 0=female)	0.92	0.92	0.92	1.00
Age	46.7	46.1	46.6	47.5
Education (*)	1.9	1.9	2.0	1.0
Marital Status (1=married, 0=other)	0.95	0.91	0.95	1.00
Number of Children below 18 years old	3.4	2.9	3.3	5.0
Household Size	7.4	6.4	7.3	9.5
Residence (1=urban, 0=rural)	0.46	0.46	0.46	0.50
Residence (1=Managua, 0=other)	0.10	0.12	0.11	0.00
Total Annual Household Income (in quetzales)	16,325	14,497	16,930	5,130
Annual labor income of the entrepreneur (in quetz.)	10,604	10,749	11,110	1,253
Weekly Hours Worked	53.0	50.1	53.3	47.0
Hourly Income (in quetzales)	43.3	49.5	45.2	6.6
House Ownership (1=Yes, 0=No)	0.87	0.87	0.86	1.00
Main Activity (% del total cases in the sample)				
Agriculture	46.2	48.1	46.0	50.0
Low Technology Manufactures	10.3	13.2	10.8	0.0
Rest of Manufactures	10.3	4.7	10.8	0.0
Wholesale and Retail Commerce	23.1	17.8	21.6	50.0
Other Sectors	10.3	16.3	10.8	0.0
<i>Total</i>	100.0	100.0	100.0	100.0
Receives remittances from abroad (1=Yes, 0=No)	15.4	7.0	16.2	0.0

(*) Illiterate =0, primary incomplete=1, primary complete=2, secondary incomplete=3, secondary complete=4, superior incomplete=5, superior complete=6.

Source: Own elaboration based on National Household Survey 2006.

In turn, Tables 9 and 10 explore the defining characteristics of the entrepreneurs who decided not to apply for a loan, classified by the seven specific response choices. Of utmost interest is the contrast between those preferring internal funding or not needing debt vis-à-vis the ones declaring that *“People like me do not get credit”*. Upon inspection of both tables, it is evident that those in the latter group attained a lower educational level, live in rural regions undertaking agricultural businesses, and earn less. As a matter of fact, they look akin to the entrepreneurs in the *“Cannot repay the loan”* item. This observation adds to the debate about the elusive concept of financial constraint, as it is hard to say that these firms, whose profile does not convey any signal of high productivity, are unfairly discriminated in the credit market.

Table 9
Entrepreneur and Household Characteristics of Those not Applying for a Loan
 Firms with 1-5 workers in Guatemala

Enterprises with 1 to 5 employees	Reasons for not applying for a loan						
	Prefers working with own resources	There was no need	People like them do not get credit	Already has an outstanding debt	Cannot repay the loan	The interest rate is too high	Other
Number of Enterprises	2,431	1,173	1,158	43	79	50	30
Characteristics of the Entrepreneur							
Gender (1=male, 0=female)	0.82	0.80	0.80	0.72	0.77	0.84	0.80
Age	48.0	47.7	48.7	47.1	51.8	48.3	48.6
Education (*)	1.0	1.3	0.6	1.8	0.6	1.1	0.7
Marital Status (1=married, 0=other)	0.83	0.82	0.78	0.74	0.73	0.84	0.70
Number of Children below 18 years old	2.2	2.0	2.3	2.5	2.2	2.6	2.1
Household Size	5.2	5.0	5.4	5.8	5.1	5.9	5.5
Residence (1=urban, 0=rural)	0.36	0.41	0.23	0.53	0.29	0.36	0.20
Residence (1=Managua, 0=other)	0.05	0.06	0.03	0.07	0.00	0.08	0.07
Total Annual Household Income	3,674	4,658	2,256	6,322	2,274	3,856	3,349
Annual labor income of the entrepreneur	1,857	2,317	1,010	2,859	798	1,481	1,781
Weekly Hours Worked	43.1	41.5	39.2	44.0	43.4	42.5	43.8
Hourly Income (in quetzales)	9.9	13.4	5.8	10.6	3.6	6.5	8.6
House Ownership (1=Yes, 0=No)	0.88	0.86	0.86	0.86	0.92	0.92	0.87
Main Activity (% del total cases)							
Agriculture	58.2	50.0	67.4	46.5	64.6	56.0	60.0
Low Technology Manufactures	7.0	6.4	4.5	7.0	3.8	8.0	3.3
Rest of Manufactures	3.7	3.1	2.2	2.3	3.8	8.0	6.7
Wholesale and Retail Commerce	20.9	22.9	14.3	25.6	16.5	14.0	23.3
Other Sectors	10.4	17.7	11.7	18.6	11.4	14.0	6.7
<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Receives remittances (1=Yes, 0=No)	11.4	15.8	9.3	16.3	6.3	12.0	6.7

(*) Illiterate=0, primary incomplete=1, primary complete=2, secondary incomplete=3, secondary complete=4, superior incomplete=5, superior complete=6.

Source: Own elaboration based on National Household Survey 2006.

Table 10
Entrepreneur and Household Characteristics of Those not Applying for a Loan
 Firms with 6-20 workers in Guatemala

Enterprises with 6 to 20 employees	Reasons for not applying for a loan					
	Prefers working with own resources	There was no need	People like them do not get credit	Already has an outstanding debt	Cannot repay the loan	The interest rate is too high
Number of Enterprises	73	36	11	5	2	2
Characteristics of the Entrepreneur						
Gender (1=male, 0=female)	0.95	0.86	0.91	1.00	1.00	1.00
Age	46.0	47.9	43.8	38.4	52.0	42.0
Education (*)	1.8	2.6	0.4	1.4	0.5	2.5
Marital Status (1=married, 0=other)	0.90	0.86	1.00	1.00	1.00	1.00
Number of Children below 18 years old	3.1	2.2	4.2	2.2	3.5	4.0
Household Size	6.5	5.3	8.7	6.0	8.5	8.0
Residence (1=urban, 0=rural)	0.45	0.56	0.09	0.60	0.50	0.50
Residence (1=Managua, 0=other)	0.12	0.19	0.00	0.00	0.00	0.00
Total Annual Household Income	10,296	26,297	4,053	21,694	2,261	7,082
Annual labor income of the entrepreneur	7,057	20,864	1,434	17,694	2,022	6,022
Weekly Hours Worked	49.8	51.4	46.5	58.4	44.0	46.5
Hourly Income (in quetzales)	32.1	99.8	7.2	59.9	7.0	33.3
House Ownership (1=Yes, 0=No)	0.84	0.94	0.82	0.80	1.00	1.00
Main Activity (% del total cases)						
Agriculture	54.8	22.2	81.8	40.0	100.0	50.0
Low Technology Manufactures	12.3	19.4	0.0	20.0	0.0	0.0
Rest of Manufactures	5.5	5.6	0.0	0.0	0.0	0.0
Wholesale and Retail Commerce	12.3	33.3	9.1	20.0	0.0	0.0
Other Sectors	15.1	19.4	9.1	20.0	0.0	50.0
<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0
Receives remittances (1=Yes, 0=No)	6.9	11.1	0.0	0.0	0.0	0.0

(*) Illiterate =0, primary incomplete=1, primary complete=2, secondary incomplete=3, secondary complete=4, superior incomplete=5, superior complete=6.

Source: Own elaboration based on National Household Survey 2006.

The data for Nicaragua is more limited both in sample size (3,487 households) and questionnaire scope (it only distinguishes firms with and without credit, without asking about whether they tried to get a loan). But it is still a nice dataset to look for answers to our motivating questions. Table 11 shows the loan sources and other salient elements of the contract. As before, a minority percentage of firms (24.9%) has a loan. The chief providers of finance are informal lenders (31.7%), financial companies (27.2%), and suppliers (12.7%). Micro and small firms differ from each other in the weight of supplier credit (12.4% in micro and 19% in small firms) and that of informal lenders (32.8% and 11.9%). Once again, government funding is negligible (0.2%), but NGOs participate with 7.7% in the micro and 9.5% in the small businesses.

As somewhat usual in other countries, including Guatemala, the proportion of collateralized loans is higher for small (81%) than for micro enterprises (50%), as the

latter are frequently unable to post any physical guarantee. In both cases, the value of the collateral is more than 8 times higher than the loan value.²¹ Compared to Guatemala, loan conditions are less favorable: they are granted for less than one year on average, at higher interest rates (40.9% for micro and 22.5% for small firms), and with commissions that amount to 6.5% and the 3.5% of the loan for micro and small firms, respectively.²² Concerning loan allocation, business expenditures represent 46.4% in micro firms and 71.4% in small ones. Like in Guatemala, just 21% of the firms express a desire to get more credit. For this subsample, the desired amount is 121% (micro firms) and 39% (small firms) of the loan actually obtained.

²¹ Although it is to be expected for borrowers to post excess collateral to cover for valuation changes, and for the pecuniary and time costs of sluggish repossession legal procedures, this figure looks abnormally high.

²² Taking into account that the reported rates are expressed in nominal terms, part of the excess interest rate of Nicaragua over Guatemala is due to the inflation rate (10.2% and 5.8%, respectively), but this accounts only partially for the difference.

Table 11
MSME Access to Credit in Nicaragua

	Number of Employees			Total
	1 a 5	6 a 20	21 a 100	
Number of enterprises in the sample	3,339	137	7	3,487
Number of enterprises that obtained a loan	823	42	3	868
Source of the Loan (in %)				
Private Bank	1.3	7.1	33.3	1.7
Government Program	0.2	0.0	0.0	0.2
Financial Company	27.2	28.6	0.0	27.2
Credit Card	0.5	0.0	0.0	0.5
Cooperative Banks	7.9	11.9	33.3	8.2
Other Cooperatives	2.9	7.1	0.0	3.1
NGO	7.7	9.5	0.0	7.7
Informal lender	32.8	11.9	0.0	31.7
Friends, relatives, and neighbors	4.7	0.0	0.0	4.5
Rural Bank	1.3	4.8	0.0	1.5
Suppliers	12.4	19.0	0.0	12.7
Others	1.0	0.0	33.3	1.0
Loan Amount (in córdobas)	11,118	24,504	229,600	12,521
Collateral (Yes = 1, No = 0)	0.50	0.81	0.67	0.52
Collateral Value (in córdobas)	88,754	220,004	351,200	99,890
Loan Term (in years)	0.9	1.3	1.0	0.9
Annual Interest Rate (in %)	40.9	22.5	25.0	41.9
Comission (Yes = 1, No = 0)	0.25	0.44	0.67	0.26
Commission Cost (in córdobas)	721	850	3,550	757
Commission to Loan (in %)	6.5	3.5	1.5	6.0
Use of the Loan				
Business Expenses	46.4	71.4	66.7	47.7
Household Expenses	53.6	28.6	33.3	52.3
Would have wanted a bigger loan? (Yes =1, No =0)	0.21	0.31	0.00	0.21
Additional Preferred Loan Amount (in córdobas)	13,491	9,465		13,207
Additional Preferred Loan Amount (in % of actual loan)	121.3	38.6		105.5

Source: Own elaboration based on National Household Survey 2006.

Tables 12 and 13 address the differences between entrepreneurs with and without a loan. For the micro firms, with up to 5 employees, we find that, as in Guatemala, a higher proportion of borrowers lives in cities, works in non-agricultural activities and receives remittances; moreover, they have more education and income. For small firms, which are a much smaller sample, we observe a similar pattern, except for the fact that non-borrowers have a higher income. In both cases, virtually no firm operates in the formal economy, as proxied by whether the owner contributes to social security.

Table 12
Entrepreneur and Household Characteristics
 Firms with 1-5 workers in Nicaragua

Enterprises with 1 to 5 employees	Has a Loan	Does not Have a Loan
Number of Enterprises	823	2,516
Characteristics of the Entrepreneur		
Gender (1=male, 0=female)	0.77	0.80
Age	46.7	47.4
Education (*)	1.4	1.1
Marital Status (1=married, 0=other)	0.76	0.75
Number of Children below 18 years old	2.1	2.0
Household Size	5.6	5.4
Residence (1=urban, 0=rural)	0.48	0.37
Residence (1=Managua, 0=other)	0.05	0.05
Total Annual Household Income (in córdobas)	70,933	51,165
Annual labor income of the entrepreneur (in córd.)	35,490	29,220
Weekly Hours Worked	45.7	44.2
Hourly Income (in córdobas)	13.5	11.2
House Ownership (1=Yes, 0=No)	0.86	0.85
Main Activity (% del total cases in the sample)		
Agriculture	52.9	63.6
Low Technology Manufactures	5.1	4.9
Rest of Manufactures	4.3	3.1
Wholesale and Retail Commerce	24.7	18.1
Other Sectors	13.1	10.3
Receives remittances from abroad (1=Yes, 0=No)	0.162	0.119
Contributes to Social Security (1=Yes, 0=No)	0.001	0.001

(*) Illiterate =0, primary incomplete=1, primary complete=2, secondary incomplete=3, secondary complete=4, superior incomplete=5, superior complete=6.

Source: Own elaboration based on National Household Survey 2006.

Table 13
Entrepreneur and Household Characteristics
 Firms with 6-20 workers in Nicaragua

Enterprises with 6 to 20 employees	Has a Loan	Does not Have a Loan
Number of Enterprises	42	95
Characteristics of the Entrepreneur		
Gender (1=male, 0=female)	0.98	0.95
Age	44.1	51.0
Education (*)	1.9	1.7
Marital Status (1=married, 0=other)	0.95	0.94
Number of Children below 18 years old	2.7	2.4
Household Size	6.4	7.2
Residence (1=urban, 0=rural)	0.38	0.42
Residence (1=Managua, 0=other)	0.05	0.05
Total Annual Household Income (in córdobas)	9,702	15,748
Annual labor income of the entrepreneur (in córd.)	6,615	11,739
Weekly Hours Worked	50.7	48.5
Hourly Income (in córdobas)	31.7	53.3
House Ownership (1=Yes, 0=No)	0.98	0.88
Main Activity (% del total cases in the sample)		
Agriculture	64.3	75.8
Low Technology Manufactures	11.9	3.2
Rest of Manufactures	0.0	4.2
Wholesale and Retail Commerce	11.9	9.5
Other Sectors	11.9	7.4
Receives remittances from abroad (1=Yes, 0=No)	0.143	0.116
Contributes to Social Security (1=Yes, 0=No)	0.00	0.03

(*) Illiterate =0, primary incomplete=1, primary complete=2, secondary incomplete=3, secondary complete=4, superior incomplete=5, superior complete=6.

Source: Own elaboration based on National Household Survey 2006.

2.2 Regression Analysis

In what follows we carry out some multivariate logit regressions to uncover some factors behind the probability of applying for and getting a loan, using the same set of control variables as before. Given the narrow scope of our work (evaluating the access to credit using as main input enterprise surveys), the regressions that follow should not be interpreted as an econometric exercise to pinpoint the causal determinants of the access to credit. Our dataset does not include detailed information on the productive activity and performance of the entrepreneur, which should necessarily be included in a correct specification of demand and supply credit functions. Actually, our more modest aim is to highlight some correlations between access to credit and some individual and household attributes that may be part of the set of explanatory variables but does not provide a full explanation about why an entrepreneur asks for credit and why he or she is granted it or not.²³

In the case of Guatemala, Table 14 shows that the probability of applying for a loan increases with education, income and remittances, much in line with the simple statistics reported previously.²⁴ According to Table 15, the probability of obtaining a loan depends significantly of gender (women have more chance of being granted one) and house ownership, but income and education, which came up as potential explanations earlier, have no bearing in the lender's decision after controlling for other factors. This might be a consequence of self-selection (all applicants share homogeneous features) combined with the presence of unobservable characteristics driving the lender's rejection –for example, lack of a well documented business plan or credit history.

In turn, Table 16 suggests that the probability of not having demand for a loan (preference for internal funding plus no need for credit) as the main reason for not applying goes up with education, marriage, urban residence, income, house ownership, and non-agricultural occupation. The results are replicated almost identically after

²³ By the same token, we do not run any selection bias test à la Heckman: for one, we are not interested in measuring with more precision the loadings of the right-hand side variables, because ours is a simple exploratory approximation to the problem and hence we do not have any particular hypothesis to check; secondly, one may want to correct for endogeneity bias once there is confidence on the overall specification, which is not the case here; and finally, the very lack of additional variables makes it difficult to identify a plausible exclusion restriction.

eliminating other reasons for not applying and retaining only the “*People like me do not get credit*” response. This denotes that this reason is indeed highly correlated with some of the omitted ones (no ability to repay, high interest rate, previous outstanding debt), all of which imply that the firm is not in good shape. As a result, this finding reinforces the impression that the “*People like me do not get credit*” response is unlikely to be a clear-cut indication of true financial constraints as we defined them in Section 1.

For Nicaragua, as reported in Table 18, the probability of having a loan appears positively and significantly (at 5% or less) associated to education, income, and remittances. Additionally, married firm owners are more likely to have a loan.

²⁴ It also increases with the number of children under 18, a result very difficult to rationalize.

Table 14
Logit Regression: Probability of Applying for a Loan
 Firms with 1-20 workers in Guatemala

Dependent Variable: Applied for a loan = 1, and 0 otherwise	Marginal Effects	Z Statistics
Explanatory Variables		
Gender (1=male, 0=female)	-0.0142	-0.81
Age	-0.0004	-1.02
Education	0.0099 ***	2.82
Marital Status (1=married, 0=other)	0.0034	0.22
Number of Children below 18 years old	0.0047 **	2.13
Residence (1=urban, 0=rural)	0.0134	1.30
Annual labor income of the entrepreneur (in quetz.)	0.0304 ***	7.77
House Ownership (1=Yes, 0=No)	0.0060	0.50
Agriculture	-0.0097	-0.69
Low Technology Manufactures	-0.0135	-0.75
Rest of Manufactures	0.0255	1.04
Wholesale and Retail Commerce	0.0089	0.64
Remittances from Abroad (1=Yes, 0= No)	0.0353 **	2.18
No. Observations: 5,780		
No. Observations =1: 755		
No. Observations =0: 5,025		
Correctly classified cases: 86.9 %		
LR chi2(13) = 183.97		
Prob > chi2 = 0.0000		
Pseudo R2 = 0.0411		
Log likelihood = -2148.16		

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 15
Logit Regression: Probability of Obtaining a Loan
 Firms with 1-20 workers in Guatemala

Dependent Variable: Obtained the loan = 1, and 0 otherwise	Marginal Effects	Z Statistics
Explanatory Variables		
Gender (1=male, 0=female)	-0.0420 **	-2.14
Age	-0.0010	-1.30
Education	0.0038	0.53
Marital Status (1=married, 0=other)	0.0410	1.04
Number of Children below 18 years old	0.0017	0.36
Residence (1=urban, 0=rural)	0.0085	0.42
Annual labor income of the entrepreneur (in quetz.)	0.0085	1.16
House Ownership (1=Yes, 0=No)	0.0970 **	2.48
Agriculture	-0.0201	-0.66
Low Technology Manufactures	0.0390	1.34
Rest of Manufactures	0.0372	1.24
Wholesale and Retail Commerce	-0.0302	-0.95
Remittances from Abroad (1=Yes, 0= No)	0.0216	0.99
No. Observations: 755		
No. Observations =1: 698		
No. Observations =0: 57		
Correctly classified cases: 92.3 %		
LR chi2(13) = 27.28		
Prob > chi2 = 0.0114		
Pseudo R2 = 0.0675		
Log likelihood = -188.42		

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 16**Logit Regression: Probability of Not Applying due to Lack of Demand I**

Firms with 1-20 workers in Guatemala

Dependent Variable: Prefers internal funding or has no need = 1, Other reasons for not applying = 0	Marginal Effects	Z Statistics
Explanatory Variables		
Gender (1=male, 0=female)	-0.0064	-0.26
Age	0.0002	0.41
Education	0.0539 ***	7.59
Marital Status (1=married, 0=other)	0.0710 ***	2.86
Number of Children below 18 years old	-0.0121 ***	-3.69
Residence (1=urban, 0=rural)	0.0729 ***	5.07
Annual labor income of the entrepreneur (in quetz.)	0.0345 ***	6.06
House Ownership (1=Yes, 0=No)	0.0761 ***	3.51
Agriculture	0.0425 *	1.87
Low Technology Manufactures	0.0930 ***	3.74
Rest of Manufactures	0.0157	0.39
Wholesale and Retail Commerce	0.0680 ***	3.21
Remittances from Abroad (1=Yes, 0= No)	0.0894 ***	5.10
No. Observations: 5,025		
No. Observations =1: 3,671		
No. Observations =0: 1,354		
Correctly classified cases: 73.0 %		
LR chi2(13) = 310.70		
Prob > chi2 = 0.0000		
Pseudo R2 = 0.0531		
Log likelihood = -2772.78		

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 17**Logit Regression: Probability of Not Applying due to Lack of Demand II**

Firms with 1-20 workers in Guatemala

Dependent Variable: Prefers internal funding or has no need = 1, People like them do not get credit = 0	Marginal Effects	Z Statistics
Explanatory Variables		
Gender (1=male, 0=female)	-0.0141	-0.62
Age	0.0006	1.32
Education	0.0607 ***	8.53
Marital Status (1=married, 0=other)	0.0643 ***	2.66
Number of Children below 18 years old	-0.0095 ***	-3.03
Residence (1=urban, 0=rural)	0.0774 ***	5.70
Annual labor income of the entrepreneur (in quetz.)	0.0360 ***	6.66
House Ownership (1=Yes, 0=No)	0.0902 ***	4.15
Agriculture	0.0420 *	1.92
Low Technology Manufactures	0.0868 ***	3.81
Rest of Manufactures	0.0320	0.84
Wholesale and Retail Commerce	0.0624 ***	3.12
Remittances from Abroad (1=Yes, 0= No)	0.0815 ***	5.02
No. Observations: 4,817		
No. Observations =1: 3,671		
No. Observations =0: 1,146		
Correctly classified cases: 76.2 %		
LR chi2(13) = 350.91		
Prob > chi2 = 0.0000		
Pseudo R2 = 0.0664		
Log likelihood = -2467.42		

*** significant at 1%, ** significant at 5%, * significant at 10%

Table 18
Logit Regression: Probability of Having a Loan
 Firms with 1-20 workers in Nicaragua

Dependent Variable: Has a Loan = 1, and 0 otherwise	Marginal Effects	Z Statistics
Explanatory Variables		
Gender (1=male, 0=female)	-0.0510 *	-1.67
Age	-0.0002	-0.27
Education	0.0128 **	2.12
Marital Status (1=married, 0=other)	0.0528 **	2.26
Number of Children below 18 years old	0.0083 *	1.92
Residence (1=urban, 0=rural)	0.0264	1.27
Annual labor income of the entrepreneur (in córd.)	0.0236 ***	3.08
House Ownership (1=Yes, 0=No)	0.0298	1.46
Agriculture	-0.0443	-1.55
Low Technology Manufactures	-0.0130	-0.34
Rest of Manufactures	0.0069	0.16
Wholesale and Retail Commerce	0.0073	0.27
Remittances from Abroad (1=Yes, 0= No)	0.0532 **	2.23
Contributes to Social Security (1=Yes, 0=No)	-0.1599 *	-1.91
No. Observations: 3,464		
No. Observations =1: 860		
No. Observations =0: 2,604		
Correctly classified cases: 75.3 %		
LR chi2(14) = 79.19		
Prob > chi2 = 0.0000		
Pseudo R2 = 0.0204		
Log likelihood = -1901.71		

*** significant at 1%, ** significant at 5%, * significant at 10%

Section 3: Checking Robustness: The World Bank Investment Climate Survey

In order to assess whether the previous results are too sensitive to the sample at hand, we now present some statistics from the 2006 World Bank's Investment Climate Survey (henceforth, ICS). The comparative advantage of this survey, relative to national household surveys, is that they have a broader coverage of medium and large firms, and includes a few additional questions that might be of interest to illustrate our arguments. Nevertheless, the main corollary from this section is that earlier findings are reassuringly robust.

Table 19 breaks down the total sample by firm size, distinguishing micro firms (1-5 workers), small firms (6-20), medium firms (21-100), and large firms (more than 100 workers). Medium and large firms constitute 57% and 40% of the sample in Guatemala and Nicaragua, respectively.

Table 19
ICS Composition by Firm Size

Firm Size	Guatemala	Nicaragua
Micro (1-5 workers)	36	61
Small (6-20 workers)	179	214
Medium (21-100 workers)	184	141
Large (101 or more workers)	107	44
Total	506	460

An illuminating piece of evidence is the response to whether the access to finance is among the top 3 constraints for business operations. As seen in Table 20, an average of 19.6% across MSMEs responded positively in Guatemala, with the figure rising to 35.8% in Nicaragua. Compared to other Central American countries, with 27.4%, Guatemala seems to be doing much better than Nicaragua. This low values reinforce the assertion that financial constraints are not as pervasive as typically deemed to be nor are a problem across-the-board. However, it remains true that for large firms the problem is considerably less important than for MSMEs.

Table 20
Proportion of Firms Reporting Access to Finance
As One of the Top 3 Constraints for Business Operations

	Guatemala	Nicaragua	Rest of Central America
Micro	26.2	38.7	26.0
Small	16.3	26.7	32.7
Medium	16.5	41.9	23.3
Large	2.2	5.7	5.3

Source: WB Enterprise Surveys, 2006.

Tables 21 and 22 decompose the sources of finance of working capital and fixed assets in Guatemala and Nicaragua, respectively. The prevalence of internal funding comes up at once: based on simple averages, it amounts to 59% of total funding in Guatemala, and 71.5% in Nicaragua.²⁵ Non-market sources, including family and friends, suppliers and customers, and informal lenders, follow in importance. Still, private banks finance a relatively high share of working capital (8.8% in Guatemala and 16.8% in Nicaragua). We again observe the trifling contribution of government programs and non-bank financial institutions (including NGOs). Focusing on the loan providers, Tables 23 and 24 confirm the predominant presence of private banks, the tiny participation of non-bank institutions, and the even less perceptible presence of government credit assistance.

²⁵ Of course, this fraction varies across firm sizes, type of capital, and country, but without a definite pattern or regularity.

Table 21
Sources of Finance in Guatemala (in %)

Sources of Finance	Micro	Small	Medium	Large
<i>Working Capital</i>				
Internal Funds	53.3	65.6	65.6	58.0
Private Bank Loans	4.0	8.4	14.0	13.1
Government Programs	0.0	0.1	0.3	0.2
Family and Friends	1.4	5.7	1.5	0.5
Non-bank Financial Institutions	4.7	1.0	0.0	2.2
Supplier and Customer Credit	32.4	17.0	17.5	25.7
Informal Sources	0.0	0.1	0.2	0.0
Others	4.2	2.0	0.7	0.2
<i>Fixed Assets</i>				
Internal Funds	40.5	62.3	66.9	39.9
Equity Issues	0.0	2.6	4.4	2.4
Debt Issues	0.0	0.0	0.1	2.1
Private Bank Loans	0.0	7.5	1.6	0.1
Government Programs	17.1	2.1	0.2	2.9
Family and Friends	37.3	11.1	9.3	3.8
Non-bank Financial Institutions	0.0	0.0	0.0	0.0
Supplier and Customer Credit	0.0	0.6	0.7	0.0
Informal Sources	5.1	13.2	15.7	43.1
Others	0.0	0.7	1.0	5.6

Source: Enterprise Surveys, 2006

Table 22
Sources of Finance in Nicaragua (in %)

Sources of Finance	Micro	Small	Medium	Large
<i>Working Capital</i>				
Internal Funds	78.2	59.6	64.4	62.0
Private Bank Loans	8.6	24.4	17.3	26.4
Government Programs	0.0	0.1	0.4	1.0
Family and Friends	0.9	3.7	4.2	0.1
Non-bank Financial Institutions	2.3	2.7	0.5	1.7
Supplier and Customer Credit	8.5	9.0	11.5	9.2
Informal Sources	1.2	0.5	0.7	0.0
Others	0.0	0.1	0.9	0.6
<i>Fixed Assets</i>				
Internal Funds	98.1	69.4	59.5	79.5
Equity Issues	0.9	0.1	0.1	0.0
Debt Issues	0.0	0.3	0.4	0.0
Private Bank Loans	0.0	2.6	10.3	0.5
Government Programs	0.0	0.6	3.4	0.1
Family and Friends	0.0	5.4	1.5	1.7
Non-bank Financial Institutions	0.0	1.3	0.4	0.0
Supplier and Customer Credit	0.0	1.9	0.4	0.0
Informal Sources	1.0	18.4	21.2	17.2
Others	0.0	0.0	2.9	1.1

Source: Enterprise Surveys, 2006.

Table 23
Type of Institution Granting Loans in Guatemala (in % of firms)

Firm Size/Institution	Private Bank	State bank or agency	Non-bank (*)	Other	Total
Micro	85.7	0.0	2.5	11.7	100.0
Small	74.2	5.4	20.5	0.0	100.0
Medium	92.7	2.5	2.1	2.7	100.0
Large	98.6	0.0	1.4	0.0	100.0
Total	83.2	3.6	11.9	1.4	100.0

(*) Includes microfinance institutions, credit cooperatives, credit unions and finance companies.

Source: Enterprise Surveys, 2006.

Table 24
Type of Institution Granting Loans in Nicaragua (in % of firms)

Firm Size/Institution	Private Bank	State bank or agency	Non-bank (*)	Other	Total
Micro	92.0	0.0	8.0	0.0	100.0
Small	80.6	0.0	19.4	0.0	100.0
Medium	98.7	0.0	1.3	0.0	100.0
Large	96.9	0.0	0.0	3.1	100.0
Total	87.6	0.0	12.1	0.3	100.0

(*) Includes microfinance institutions, credit cooperatives, credit unions, or finance companies.

Source: Enterprise Surveys, 2006.

The fraction of firms applying for a loan, shown in Table 25, reaffirms the apathy of most firms towards external financing. Less than 36% of MSMEs did actively seek a loan in either country, with a minimum of 8% for micro enterprises in Guatemala. In contrast, about 55% of large firms asked for credit.

Table 25
Firms that Applied for a Loan (in % of total)

Firm Size/Country	Guatemala	Nicaragua
Micro	8.0	35.7
Small	26.7	29.3
Medium	24.0	34.3
Large	53.9	57.4

Source: Enterprise Surveys, 2006.

Questioned about the motives for not applying, firms offered responses similar in nature to those documented in Table 5, based on the Guatemalan household survey. For all firm sizes, a minimum of 63% and a maximum of 93.5% claim that they just had no need for a loan. The second most recurrent motive was that the interest rate was too high. Repeating previous concepts, this statement does not clearly signal a financial constraint. This would be the case when the lender is charging too much to a high quality project, because of insufficient competition among credit suppliers or because of the incomplete information the lender counts on. But the interest rate may turn out high just because the project has a low probability of repayment. Other reasons that might be more comfortably –yet with no full confidence- associated with supply-side constraints, such as the complexity of application procedures or the strict collateral requirements, explain between 3.9% and 14.5% of total answers. Self-selection (“*Did not think it would be approved*”), another (weak) candidate for proxy of financial constraints, gathers no more than 12.5%, and zero in many cases. Generally, the distribution of responses from MSMEs and large firms look strikingly similar, contradicting the vision that the former have much more intense financial needs than the latter.

Table 26
Reasons for Not Applying for a Loan
 Guatemala, in % of total responses

Reason/Firm Size	Micro	Small	Medium	Large
No need for a loan	65.6	74.8	78.6	86.3
Complex Application Procedures	6.3	3.1	1.6	3.9
High Interest Rate	12.5	14.5	9.5	5.9
Collateral Requirements	3.1	0.8	2.4	2.0
Insufficient Loan Size or Maturity	0.0	0.0	0.8	0.0
Did not think it would be approved	12.5	0.8	0.0	0.0
Other reasons	0.0	6.1	7.1	2.0
<i>Memo Item: Sample Size</i>	<i>32</i>	<i>131</i>	<i>126</i>	<i>51</i>

Source: Enterprise Surveys, 2006.

Table 27
Reasons for Not Applying for a Loan
 Nicaragua, in % of total responses

Reason/Firm Size	Micro	Small	Medium	Large
No need for a loan	63.0	65.9	74.4	89.5
Complex Application Procedures	2.2	5.3	8.9	0.0
High Interest Rate	23.9	22.0	6.7	5.3
Unattainable Collateral Requirements	4.3	1.5	5.6	0.0
Insufficient Loan Size or Maturity	0.0	0.0	1.1	0.0
Did not think it would be approved	2.2	0.0	0.0	0.0
Other reasons	4.3	5.3	3.3	5.3
<i>Memo Item: Sample Size</i>	<i>46</i>	<i>132</i>	<i>90</i>	<i>19</i>

Source: Enterprise Surveys, 2006.

Conclusions and Policy Recommendations

The goal of this paper has been to revise some widely accepted notions about MSME financing obstacles and the remedial tools to deal with them. Our attention was placed on the cases of Guatemala and Nicaragua, and we supported our technical stand with new data drawn from the national household and the World Bank Investment Climate surveys carried out in both countries in 2006, complemented by other relevant literature and statistical sources. Our three somewhat provocative conclusions are that: (1) The number of MSMEs that has an unmet demand for credit is significantly lower than is usually thought. Although the available survey data is not fully suited to rule out supply-side factors, our sense from the evidence is that demand factors play a significant role, well above that usually attached in credit policy analyses; (2) Governments do very little to revert the situation of MSMEs going through financial constraints; and (3) Alternative credit instruments, such as leasing, factoring, third-party guarantee schemes, and microcredit are unlikely to play a decisive role in alleviating the financial status of these firms.

Essential policy lessons emerge from these and other findings of the study, namely:

- a. State intervention in the credit market for MSMEs should be based on strict principles of management, disclosure, and accountability;
- b. In spite of well-known market failures, the private sector has provided more and better responses to MSMEs in search of finance than the state. In this light, first-floor credit channeling by the government should be restricted at a minimum, as in fact is Guatemala and Nicaragua. Furthermore, other pressing social demands and the chronic need for fiscal discipline makes it unlikely for governments to embark in wide-ranging financial assistance programs;
- c. In the case that governments decide to pursue more active credit initiatives, careful attention should be paid to the screening of financially constrained enterprises. As was strongly emphasized throughout the paper, a relatively minor fraction of firms warrant an intervention with net social benefit. Unfortunately, most programs hinge on the

assumption that every MSME, almost by definition, deserves financial support. As these programs are not based on severe selection criteria and often carry a substantial cost subsidy, incentives exist for any firm to apply, even without any intention of using the funds for productive purposes. A professionally trained staff, with high ethical standards and free from political influence, may build a loan portfolio delivering a highly positive social outcome in terms of income and employment. To reach this goal, a crucial step forward is to design an objective methodology to target future beneficiaries of credit programs. Otherwise, fiscal efforts will be prone to be wasted;

d. Governments may play a significant role in coordinating and providing financial and technical support to banks and non-bank institutions expressing an interest in increasing their outreach to MSMEs. The lifting of unjustified regulatory and tax barriers to suitable credit instruments is another field for healthy intervention. The alliance with multilateral organizations, such as the World Bank, the IDB and others, may serve as a catalyst for success. It is worth noting that recent experience around the world in the microfinance business proves that well-run private strategies focused on small and poor clients can be commercially viable and attractive;

e. The state can also be of great help in boosting financial education for entrepreneurs to become aware of the benefits, costs, and risks of traditional and non-traditional credit alternatives. This knowledge will in time strengthen market discipline over financial intermediaries, which is no doubt the cornerstone of effective competition. In a similar vein, financial regulators should give more priority to consumer protection, offering technical and legal advice to MSMEs suffering unjust financial treatment by formal and informal intermediaries; and

f. Continued official efforts to assemble broad and reliable databases with micro information on small-scale users of financial services will be most welcome as a part of a policy package. This information, to be made publicly available except for confidentiality aspects, will be extremely useful for the use of cost-effective credit scoring systems by private institutions and for professional research on MSME access to finance. Regular surveys carried out by local and international organisms, like those used in the present study, are also vital elements towards such goals.

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