Drivers and Obstacles to Banking SMEs: The Role of Competition and the Institutional Framework

AUGUSTO DE LA TORRE MARÍA SOLEDAD MARTÍNEZ PERÍA SERGIO L. SCHMUKLER

CESIFO WORKING PAPER NO. 2651
CATEGORY 6: FISCAL POLICY, MACROECONOMICS AND GROWTH
MAY 2009

An electronic version of the paper may be downloaded
• from the SSRN website: www.SSRN.com
• from the RePEc website: www.RePEc.org

• from the CESifo website: www.RePEc.org

• from the CESifo website: www.CESifo-group.org/wp

Drivers and Obstacles to Banking SMEs: The Role of Competition and the Institutional Framework

Abstract

Small and medium enterprises (SMEs) are important for employment and economic activity; however, they are perceived to lack adequate financing, which hampers their growth. As a consequence, governments have implemented a number of programs to foster SME lending and attention has focused on improving the institutional environment, such that the financial system is more willing to lend to SMEs. In this paper, we directly ask banks (the main providers of SME external finance) what factors they perceive as drivers and obstacles to financing SMEs. We also study to what degree competition and the institutional framework play a role in banks' decisions. To do so, we use a unique survey of banks in Argentina and Chile, two neighboring emerging countries with significant differences in how their institutional environments are viewed, and thus expected to shape banks' willingness to deal with SMEs. The paper shows that, despite alleged differences in the countries' environments regarding rules, regulations, institutions, and ease of doing business, SMEs have become a strategic segment for most banks in both countries. In particular, banks have begun to target SMEs due to the significant competition in the corporate and retail sectors. They perceive the SME market as highly profitable, large, and with good prospects. Moreover, banks are developing coping mechanisms to overcome the particular institutional obstacles present in each country and to compete for SMEs. Banks' interest in SMEs is not based on government programs, yet policy action might help reduce the cost of providing financing, especially long-term lending.

JEL Code: G21, G28, L25, O12, O16.

Keywords: small and medium enterprises, bank finance, financial constraints, banking market structure, institutional factors, regulation, competition.

Augusto de la Torre María Soledad Martínez Pería Sergio L. Schmukler adelatorre@worldbank.org mmartinezperia@worldbank.org sschmukler@worldbank.org

February 2009

We received very helpful comments and suggestions from many colleagues, including Martin Cave, Stijn Claessens, Vivek Ghosal, Rogelio Marchetti, Margaret Miller, Ary Naim, Sophie Sirtane, Greg Udell, and an anonymous referee. We also received many useful comments at presentations held at the Asobancaria (Bogota, Colombia), CASIN-IFC Forum on SMEs (Geneva, Switzerland), the Central Bank of Argentina (Buenos Aires, Argentina), the Central Bank of Chile (Santiago, Chile), the CESifo Summer Institute (Venice, Italy), the Finance Forum at the World Bank Group (Washington, DC, USA), the Latin American Congress on Banking and SMEs (Cartagena, Colombia), and the World Bank (Washington, DC, USA). We are grateful to Mercedes Politi for excellent research assistance on this paper and the data collection. Maria Bernarda Dall'Aglio, Noemí Soledad López, Mira Olson, and Victoria Vanasco also helped us enormously at different stages of the project. We thank all the banks that participated in the study for their generosity in sharing information and for interacting with all the members of the team. The views expressed in this paper are entirely those of the authors and do not necessarily represent the opinions of the World Bank Group.

1. Introduction

How small and medium enterprises (SMEs) finance their operations is a subject of significant interest to policymakers and researchers alike. SMEs account for a sizeable share of overall employment levels in both developed and developing countries. Furthermore, since most large companies usually start as small enterprises, the viability of SMEs becomes crucial to any economy wishing to prosper. Concerns are compounded by evidence showing that SMEs tend to be more financially constrained than large firms and that lack of access to finance is an important obstacle to their growth. In particular, SMEs find it difficult to obtain external financing from banks and capital markets given their size and characteristic opaqueness.²

As a consequence of this perceived lack of financing and given the segment's economic importance, governments around the world have implemented a number of programs to foster SME lending.³ They have included subsidized or favorable loans, guarantees, and special lines of credit by certain banks (typically public banks), usually for particular economic sectors.⁴ More recently, governments have participated in programs to foster factoring and structured products that allow bank financing to reach SMEs by including large corporations and special purpose vehicles to decrease problems of moral hazard and asymmetric information.⁵

Aside from government programs to finance SMEs, what other factors can help alleviate SME financing constraints? An extensive literature has shown that

-

¹ Using data from 1990-99 for 76 countries, Ayyagari, Beck, and Demirguc-Kunt (2007) show that on average SMEs account for 55% of employment in manufacturing. In Argentina and Chile, SMEs account for 70% and 86% of manufacturing employment, respectively.

² For evidence that SMEs tend to be more financially constrained than large firms, see Schiffer and Weder (2001), IADB (2004), Beck, Demirgüç-Kunt, and Maksimovic (2005), and Beck, Demirgüç-Kunt, Laeven, and Maksimovic (2006). Furthermore, Beck, Demirgüç-Kunt, and Maksimovic (2005) show that lack of access to external finance is a key obstacle to firm growth, especially for SMEs

³ Beck, Demirgüç-Kunt, and Honohan (2008) provide a survey of policies undertaken by governments to improve financial access by households and firms.

⁴ See Beck, Klapper, and Mendoza (2008) for a survey on partial credit guarantee schemes around the world.

⁵ See de la Torre, Gozzi, and Schmukler (2007).

access to external financing and firm growth are shaped by legal institutions.⁶ In other words, in countries with better institutional environments, financing obstacles are smaller and firms obtain more external financing and are able to grow faster. More importantly, recent research using firm-level data has shown that SMEs seem to benefit the most from improvements in the institutional environment.⁷

In this paper, rather than focusing on firms' perceptions regarding SME financing (as has been the case with most of recent studies), we analyze the factors banks perceive as drivers and obstacles to lending to SMEs. Of particular interest is the role of the competitive and institutional environments in shaping SME lending, and more generally banks' interest in dealing with SMEs. By competition we refer to the competition banks face in the SME and other segments, which affect their behavior. By institutional factors we refer to the rules and regulations that affect the functioning of the financial system and influence the operation of the private sector, as well as the more general macroeconomic environment that shapes financial contracts. In this category, we also include government programs that foster lending to SMEs.

To study the role of the competitive and institutional environments, we compare banks' perceptions about SMEs in Argentina and Chile.⁸ We use a survey that covers a wide range and a significant proportion of banks in these countries. The

⁶ See, for example, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997, 1998), Demirguc-Kunt and Maksimovic (1998), Beck, Demirguc-Kunt, and Maksimovic (2005), and Beck, Demirguc-Kunt, Laeven, and Maksimovic (2006).

⁷ Using data from 4,000 firms in 54 countries, Beck, Demirguc-Kunt, and Maksimovic (2005) show that marginal changes in the institutional environment result in financing and legal obstacles having a smaller negative impact on firm growth, and this effect is larger for SMEs. Using a similar database, Beck, Demirguc-Kunt, and Maksimovic (2008) show that SMEs gain greater access to bank finance as a result of improvements in property rights.

⁸ The World Bank has also recently conducted studies of SME financing in Colombia (Stephanou and Rodriguez, 2008) and Serbia (World Bank, 2007b). Using data for a sample of banks in developed and developing countries and SMEs in Latin America, de la Torre, Martínez Pería, and Schmukler (2008) claim that even large and foreign banks might have incentives and a comparative advantage in serving SMEs through alternative models to relationship lending.

surveys were conducted in December of 2006, a period of macroeconomic stability in both countries. A data request that accompanied the survey allowed us to gather information for some variables for both 2005 and 2006. Although the analysis focuses just on banks, it is relevant because banks seem to be the main providers of external finance (from the financial sector) to SMEs in both places.

The comparison between Argentina and Chile is of particular interest. The two countries are neighbors, they are both growing, emerging economies, and they have implemented many financial reforms over the last decades to foster competition and create a market-friendly environment, establishing regulations and institutions that foster market development. As part of this trend, both Argentina and Chile experienced the arrival of foreign banks during the 1990s, which now hold a significant market share (26% in Argentina and 64% in Chile). In several cases, the same international banks have started operations in both countries, a fact that allows us to compare their approach to SMEs in different settings. Moreover, Chile suffered an economic slowdown after the Asian crisis, during 1998-99, while Argentina had a severe economic crisis during 2001-02, which involved reprogramming of bank deposits, the conversion of dollar deposits to peso deposits, and debt default. Both economies recovered afterwards, with their banking systems affected in very distinct ways.

Besides the analogies between Argentina and Chile, there are also significant differences in how the institutional environment is perceived to work in each country. According to several widely used indicators, Chile's institutional environment is perceived to rank better than Argentina's. For example, the *Institutional Development*

⁹ In particular, we collected data on the number of branches and personnel dedicated to serving SMEs, the number of deposits from SMEs, the number of SME debtors and loans, and the value of loans to SMEs.

component of the Global Competitiveness Index produced by the World Economic Forum, which ranks countries from best to worst institutional environment, ranks Chile in 23rd place out of 131 countries, while it ranks Argentina in 123rd place. ¹⁰ The World Bank's Governance Indicators also rank Chile better than Argentina in terms of regulatory quality, rule of law, and control of corruption. With higher rankings here indicating better outcomes, Chile is in the 90th percentile in terms of regulatory quality, rule of law, and control of corruption, while Argentina ranks in the 20th to 40th percentile depending on the indicator considered. 11 According to The Heritage Foundation's Property Rights Index (one of the components in the Economic Freedom Index), Chile stands at 90 while Argentina receives a 30, with higher numbers (on a scale from 0 to 100) indicating greater protection of property rights.¹² Finally, the *Doing Business in Latin America* 2008 report shows that Chile ranks better than Argentina in terms of legal rights protection and regarding the time and cost to register property (World Bank, 2007c). Given all these alleged differences in the institutional environments in Argentina and Chile, this paper studies whether banks view them as shaping their involvement with SMEs.

The paper's main findings regarding banks' perceived drivers and obstacles to financing SMEs are as follows. First, despite the mentioned institutional differences, SMEs have become a strategic sector for most banks in both countries. Furthermore, banks perceive the SME lending market as large, unsaturated, and with good prospects. In other words, while the literature argues that the institutional environment is important for SME financing and that the perceived institutional differences between Argentina and Chile are large, banks' interest in SMEs does not seem to vary

¹⁰ Rankings can be found at http://www.gcr.weforum.org/.

¹¹ See Kaufmann, Kraay, and Mastruzzi (2008) for a detailed description of these governance indicators. For rankings, go to http://info.worldbank.org/governance/wgi/index.asp.

Data for the Heritage Foundation Index of Property Rights can be downloaded from

http://www.heritage.org/research/features/index/downloads.cfm.

significantly across these countries. Second, the interest in SMEs is not based on government programs. Banks seem to be focusing on SMEs because, among other things, they argue that the segment's profitability will more than compensate for the higher implied costs and risks, especially given thinning margins in the corporate and retail sectors due to competition in those segments. Third, since banks have developed coping mechanisms to deal with potential institutional deficiencies, they do not perceive any obstacles significantly impeding them from serving the segment. In other words, the potential benefits of serving SMEs have generated incentives for banks to develop ways to overcome the institutional limitations they perceive as obstacles. Fourth, in the case of international banks present in both countries, the strategies to engage SMEs across countries are remarkably similar, which suggests that banks are exporting their business models to places with different institutions. Finally, the institutional environments appear to be more relevant for certain types of financing, like long-term loans in fixed rates in domestic currency. Thus, policy action might focus on complementing what banks need to expand their participation and provide the type of financing that might still be lacking.

The paper is organized as follows. Section 2 describes the survey used and the data gathered. Section 3 discusses the extent and type of bank engagement with SMEs and analyzes whether there are significant differences across countries, bank ownership types, size, and location. Section 4 analyzes the drivers of this involvement and Section 5 describes banks' perceived obstacles. In both sections, we investigate whether there is heterogeneity depending on country or bank characteristics. Section 6 discusses in more detail the role of competition and government programs. Section 7 concludes.

2. Data

Our analysis is based on information gathered by means of on-site interviews conducted in 2006 with banks' top management, the use of a tabulated questionnaire, and a detailed data request, covering the period 2005-2006, designed to obtain unique information on bank lending to SMEs, which are not available to the Central Banks of each country. The interviews and data processing are confidential, so banks felt practically no constraint in sharing their information, with the understanding that the data would be reported in an aggregate way, without disclosing each bank's strategy or positions. The questionnaire was designed to address three broad areas: (1) measuring the extent of bank involvement with SMEs, (2) learning about the determinants of the degree of bank financing to SMEs, such as demand factors, competition, corporate strategy, and macroeconomic, regulatory, and institutional factors, and (3) understanding the business model and risk management process that banks use when working with SMEs.

The survey covers 14 banks in Argentina: six foreign, six private domestic, and two public, which account for 75% of the banking system's total assets. 13 Out of 14 banks, four are regional banks and ten have operations nationwide. ¹⁴ In Chile, the survey covers eight banks: four foreign, three private domestic, and one public, which represent 79% of the banking system's total assets. All Chilean banks have operations nationwide. 15 In each bank, we tried to carry out separate interviews with the general manager (to understand the determinants of the bank's involvement with SMEs), the SME business manager (to assess the business model for dealing with SMEs), and the credit risk manager (to comprehend how risks are controlled). The percentages

¹³ Total assets stands for liquid assets, public and private securities, loans, and other banks' assets.

¹⁴ The regional banks have operations in six regions or less, while the national banks are present in 17 regions or more (compared to the 24 available regions in Argentina). In the regressions, we use the percentage of regions in which the bank has operations as a proxy for bank location.

15 All banks have operations in ten regions or more (compared to 13 available regions in Chile).

presented in this paper are calculated based on the sample of total banks interviewed that have SMEs among their clients (13 Argentine banks and eight Chilean Banks). The percentages are usually calculated for the aggregate sample of Argentina and Chile, and when considered relevant, these percentages are presented by country or type of bank.

To classify SMEs, all the banks interviewed use average annual sales. However, a variety of ranges is observed, indicating that there is not a unified criterion to define the segment as a whole. In Argentina, the Central Bank and the SME Secretary (SEPyME) have established their official definitions for small enterprises (SEs) and medium enterprises (MEs), but most banks do not follow either of them. The fact that banks do not adopt similar definitions for SMEs reflects the heterogeneity of the banking system. For example, large international banks usually serve SMEs with high average sales, while small banks tend to focus on smaller SMEs.

The ranges of average annual sales used to classify SEs and MEs differ between Argentina and Chile, reflecting the different size of their economies. In Argentina, a company is considered to be an SE when its average annual sales are approximately between US\$300,000 and US\$5,000,000. MEs are those with annual sales between US\$5,000,000 and US\$30,000,000. In Chile, these ranges have lower values: SEs have average annual sales of approximately US\$90,000-US\$1,600,000 and MEs of US\$1,600,000-US\$2,3800,000. All the companies with average annual sales below these ranges are considered to be micro enterprises and those above belong to the corporate sector. It should be noted that in Argentina, loans of AR\$500,000 (US\$ 166,667), or less can be treated as consumption loans according to

¹⁶ These ranges were calculated as the average minimum and the average maximum values of the criteria banks use to define SEs and MEs.

Central Bank (BCRA) regulations, even when they are granted to a company (as long as the total debt the client has with the bank does not exceed this amount).

In the rest of the paper, we ignore the heterogeneity of ranges observed in the definition of SMEs and use whatever definition banks use to define them. To some degree, this makes the comparison across banks with very different definitions difficult. Nonetheless, it is useful to analyze how banks conduct business with what they consider to be SEs and MEs. Moreover, it would be very difficult to construct another working definition.

3. Extent and Type of SME Involvement

Bank involvement with SMEs in Argentina and Chile appears to be significant. All banks interviewed have SMEs among their clients, with the exception of one Argentine bank, which was planning to enter the middle-market segment. The importance of the SME segment has increased to the point that more than 80% of the banks interviewed have created a separate unit to serve it.¹⁷ In both countries there appears to be an integral relation with SMEs. Moreover, bank exposure to SMEs appears not to be limited to specific economic sectors or geographic regions.¹⁸

Banks have a significant level of exposure to the SME segment in terms of loans, and this exposure is higher in Argentina than in Chile. The exposure to SMEs is measured as the ratio of SME loans to total outstanding private sector loans (including retail). In 2006, SMEs represented 37% of total bank loans to the private sector in Argentina and 13% in Chile. These ratios are very similar for 2005. The level of exposure of the *most involved* and *medium involved* banks is unexpectedly high,

¹⁷ In Argentina 77% and in Chile 87% of banks interviewed have separate SME, or SE and ME units.

¹⁸ See de la Torre, Martínez Pería, Politi, Schmukler, and Vanasco (2008) for an analysis of the business model and risk management practices banks use to serve SMEs.

¹⁹ The banks that provided this information and that are considered in this average account for 64% of total private sector loans in Argentina and 80% of total private sector loans in Chile.

representing on average 62% and 28% of the banks' loan portfolios respectively.²⁰ On average, private domestic banks are the most exposed to the segment in both countries, with a level of exposure of 56% in Argentina and 16% in Chile. In Argentina, private domestic banks are followed by public banks (31%) and foreign banks (27%), while in Chile they are followed by foreign banks (12%).^{21,22}

Table 1 provides a more formal examination of differences in banks' involvement with SMEs along several dimensions using Tobit estimations.²³ The dependent variables are constructed with unique quantitative bank data for 2005 and 2006 on the share of branches that service SMEs to total bank branches, the fraction of banks' personnel dedicated to SMEs, the proportion of the number of SME deposits to total number of bank deposits, the share of SME debtors to total number of bank debtors, the proportion of the number of loans to SMEs relative to the total private sector loans, and the share of lending to SMEs to total private sector lending.

The results show that banks in Argentina are to some extent more involved with SMEs than in Chile, according to the shares related to deposits and lending. In fact, no indicator shows that banks are more involved in Chile than in Argentina. This suggests that the institutional environment, which is weaker in Argentina, has not been a constraint for banks to operate with SMEs in that country. Private foreign banks have fewer branches that serve SMEs than public and private domestic banks do, but that does not mean that they are less involved with SMEs. Relative to public

²⁰ These are simple averages of the ratio of SME loans to private sector loans for the banks that belong to each category: *most involved* and *medium involved* banks. The *most involved* banks are the top third of banks with the highest share of SME loans as percentage of total loans. The *least involved* banks are the bottom third of banks with the lowest share of SME loans as percentage of total loans. The *medium involved* banks are the ones that do not fall in either category.

²¹ These ratios are calculated as the sum of SME loans over the sum of private sector loans considering the banks belonging to each category of bank type (public, private domestic and foreign).

²² Despite the increasing importance of SMEs, most banks are not yet able to measure their exposure to the segment in terms of income, costs, or risk.

²³ Since the number of observations is limited, we report throughout the paper both bivariate regressions (with the exception of the one with the two bank-type dummies) and multivariate regressions.

banks, private banks have a higher fraction of loans and amount lent to SMEs as well as a higher share of SME debtors. Banks with higher overall market share (large banks) have a higher fraction of the number of SME deposits, but that does not imply that they lend more. They have a lower share of lending and a lower proportion of number of loans to SMEs. That is, banks do not necessarily engage with SMEs primarily through lending.²⁴

In terms of the products banks use to engage with SMEs, bank lending is mainly short term, which might be explained by the institutional framework.²⁵ The most important lending products are short-term loans and overdrafts both in Argentina and Chile; these are geared toward financing working capital. These products are followed by leasing and investment loans (Figure 1). Pre-trade financing is also considered important in both countries. Document and check discounting is the second leading product in Argentina but is not mentioned at all by Chilean banks, while factoring is a very important product in Chile but is not considered significant by Argentine banks. However, these products are similar since they enable companies to receive payments in advance at a certain discount. The main difference between check discounting and factoring lies in the instrument that is being discounted: in Argentina it is relatively easy for the bearer of a check to claim the corresponding payment since the check is an "executive title," while the bearer of a company receipt is unable to do so because company receipts are typically not executive titles.²⁶ In

²⁴ This result is not necessarily surprising. While small banks can only make small loans due to concentration limits on lending, large banks can make large loans and hence proportionally their involvement with SMEs, measured by the share of lending, will be lower.

²⁵ For 111 institutions of Latin America and the Caribbean, a survey conducted by FELABAN (2007) shows that 52% of the banks offer short-term commercial loans for working capital investments, 14% of these banks include long-terms loans, and 18% do not have an active credit policy.

²⁶ An instrument is an "executive title" if it is established by law that the payment obligation it represents must be met. This category cannot be established by the parties involved in a transaction, but rather it can only be designated by law since it reflects a public interest that the obligations in certain types of instruments are fulfilled. Therefore, the holder of an "executive title" can forcefully demand the compliance of its payment. In Argentina, some receipts can become executive titles if they are

Chile "the use of factoring has been facilitated after a recent legal reform that made the *factura* an executive title." ²⁷

Based on the data received from banks in Argentina, working capital loans represent approximately 60% of the SME loans, while investment loans account for almost 20% of SME loans. In Chile, the distribution appears to be different since short-term and long-term products represent a similar proportion of total financing to SMEs; working capital and investment loans each represent around 40% of the SME portfolio. As for the term of investment loans, in Argentina the average term is 1,000 days while in Chile it is 3,700 days (Figure 2). These stylized facts suggest that the SME lending market is more developed in Chile than in Argentina.

Banks usually require some basic collateral to make loans. Approximately 70% of the loans require collateral, and the collateral requirement represents, on average, 96% of the loan amount. Some banks mention that their collateral requirements are more flexible the larger the size of the company and others stress that the requirements are stricter for long-term loans. In general, banks prefer collateral that is easier to execute in case of default, however banks mostly maintain these strong collateral requirements as an incentive for debtors to repay as agreed.

4. Drivers of Bank Involvement with SMEs

To understand what lies behind the figures on the extent and type of involvement described above, banks were asked to indicate the drivers of SME lending and to explain how significant these factors are in defining their level of involvement with the segment. Four main drivers were highlighted by banks in both countries (Figure 3).

certified, which are then called "facturas conformadas," but this is not usually done in practice.

²⁷ Quoted from bank interviews in Chile.

First, the high level of perceived profitability of the segment was mentioned by banks as the main motivation to attract SME clients. A large majority of the banks consider that they will attain elevated profits that will more than compensate for the higher costs and risks of the segment. A common observation unveiled from interviews with managers is that the high profitability of working with SMEs not only derives from lending products, but also from the potential for cross-selling other products. Once the relation with the company is established, banks offer clients a variety of services and obtain an extremely significant proportion of their revenues from the fees they charge for these services. The potential for cross-sale that SMEs entail does not necessarily imply higher risk because no lending needs to be involved. Furthermore, many banks perceive the SME segment to be more profitable than corporate banking. This might be explained by the fact that spreads on corporate lending are near zero (due to high competition in both countries), so banks are looking for new markets to diversify their income sources. Moreover, in Argentina, the perceived risk of the corporate segment has increased because SMEs performed better than large companies during the 2001-2002 crisis. The Argentine crisis was particularly harmful for large corporations, especially utilities companies, although the recession the country experienced affected all the sectors of the economy. In that event, SMEs did not default by as much as large corporations, they made efforts to comply with their debt payments, and they recovered more quickly from the crisis.

Second, almost 70% of the banks in Argentina and 25% of the banks in Chile mentioned the possibility to seek SMEs through relations with existing large clients as another significant driver of their involvement with the segment. Banks systematically ask large clients for references on their best clients and suppliers, which in many cases are SMEs. With a list of potential clients, banks contact these companies and try

to convert them into clients by offering services or lending products, depending on the banks' strategy. The benefit banks reap from this is not only that banks obtain an assessment of the quality of these SMEs from large clients, but also that these SMEs are supported by operating with these large corporations, who in some cases also provide guarantees. Thus, banks gain very useful information and reduce the risk of seeking new clients. In this way, banks exploit the synergies of working with different types of clients.²⁸

Third, more than 40% of the banks (exclusively private ones) consider the SME segment to be a strategic sector. This is the third most mentioned driver in Argentina (54% of banks), while in Chile it is the fourth (25% of banks). The increased interest in the segment can be understood as a result of the change in industrial organization that Argentina and Chile have witnessed in the past few years. In the early 1990s, companies tended to be vertically integrated, so by serving a large company banks were able to service the entire chain of business. However, in the past five years many large companies appear to have outsourced processes to the SME segment, tending toward a modular integration, in which SMEs carry out these outsourced processes. Therefore, if banks want to service the entire chain of business they may need to lend to the SMEs that are responsible for the outsourced processes. Banks seem to have a new role as financial entities: to finance and provide services to the SMEs that carry out the outsourced processes and that tend to be supported by large corporations.

²⁸ However, the way to approach to new SMEs does not seem to be fully standardized. Using information from existing firm databases, such as credit bureaus, relying on existing deposit clients, and attracting clients with bank credit are also other approaches that banks use to identify prospective SMEs. With a lower degree of importance, another practice observed is the incorporation of relationship managers from other banks, who bring their own client's portfolio. A very small percentage of the banks also reveal that they target SMEs that are located close to their branches. The wide variety of methods that banks use to detect potential SME clients suggests the pro-active attitude of banks in reaching out to SMEs despite the strong demand.

Fourth, another key driver, mentioned by more than a third of the banks as a reason for their interest in SMEs, is intense competition and exposure to the retail and/or corporate sectors. In Chile, the excessive exposure to other segments appears to be extremely relevant, since 75% of the banks consider it a key driver. The decreasing profitability noted in other segments, which is due to high competition, has induced banks to focus on SMEs. As mentioned above, competition is high in the corporate segment. A similar phenomenon is also observed in the consumer and micro segments, particularly in Chile. In Argentina, the consumer segment does not show decreasing profits; nonetheless, bank participation has grown in that segment at a rapid pace since the early 2000s, so it may be near saturation. This could explain why the future growth of Argentine and Chilean banks appears to rely strongly on the SME segment.

Table 2 shows more formally, using ordered Probit regressions, how drivers vary across countries and bank characteristics. The results confirm the description above based on the figures and provide additional interesting insights. They basically show to what degree different drivers are more relevant for a particular country or type of bank.²⁹ The table shows that foreign banks see the profitability of the SME segment as an important driver. In Argentina, banks perceive the possibility to team up with large clients to be relatively more important. Competition for large corporates is more of a driver to engage with SMEs for large banks (since they are the only ones that have access to corporates to begin with). Meanwhile, competition for retail customers seem to be more relevant for private banks (both foreign and domestic), since they compete among themselves and with other non-bank financial intermediaries like retail chains. Exposure to large corporates seems to be more

²⁹ We have also performed some estimations in which observations are pooled across similar variables (so the degrees of freedom increase) and obtained similar results.

important for Argentine banks and for those with more geographic presence, while exposure to retail customers is more important for Argentine banks. Overall, the results show that given the incentives to seek profits through other segments, Argentine banks have reached out to SMEs despite the concerns with the institutional environment.

5. Obstacles to SME Lending

While bank involvement with SMEs is driven by the factors mentioned above, it is also useful to assess the degree to which this involvement is affected by certain obstacles. Surprisingly, many of the obstacles often perceived as deterrents of engagement with SMEs are not considered significant by most banks. There are also some differences in perceptions across countries. Below we discuss the five most important factors perceived as obstacles by banks in Argentina and Chile. See Figure 4 and Table 3.

First, SME-specific factors are the only obstacle considered significant by both Argentine and Chilean banks (roughly 50% of the banks in each country). These are factors related solely to SMEs (i.e., intrinsic to their nature and behavior) and not to other firms that operate within the same regulatory and contractual environment. For example, informality and low quality balance sheets in Argentina, lack of quality information in Chile, and lack of adequate guarantees in both countries stand out as SME-specific factors that banks perceive as obstacles in serving these firms.³¹ Note that lack of quality information is not mentioned at all by Argentine banks, but it is likely implicit in the response related to informality. In Chile, when explaining the

³⁰ The obstacles are ranked based on the importance they have in the aggregated sample of Argentina and Chile.

³¹ To increase the level and quality of information available to banks on firms (large corporates and SMEs), the Central Bank of Argentina is working toward the establishment of a "central de balances." This database will contain economic and financial information about the business activity of firms.

lack of quality information, banks mention that small enterprises have limited and non-standardized information and that financial statements are prepared only once a year (mainly for tax reporting purposes); besides, the cost to improve the information on SMEs are high and must be absorbed by the bank. Other factors stated are problems related to evaluating SME risk, the weakness of family management, the lack of SME associations for cooperation, and the fact that SMEs auto-exclude themselves from the banking system.

Second, competition in the SME segment is considered a significant obstacle by 70% of the Argentine banks while in Chile it is not regarded as significant (only 13% of the banks mention it as an obstacle). This of course is based on the banks' perspective; while high competition is perceived as an obstacle by banks, it benefits SMEs. Narrow margins and the "distortions generated by public banks," as stated by some banks, are considered to be important issues related to the high competition in the segment. The existence of niche banks and regional banks, the "unfair competition of large private banks," and the fact that private banks usually dominate the high quality segment were also mentioned by banks. In Argentina, large and public banks are considered price-setters; they are perceived by other banks to set "predatory prices" to capture a larger share of the SME segment. This is particularly harmful for small and niche banks that do not have enough margins to compete with low rates. One important finding is that interest rates on loans do not necessarily reflect the risk of the client: they are determined by the high level of competition among banks. Private domestic banks consider competition in the SME segment as a key obstacle, while foreign and public banks do not. As mentioned above, foreign and public banks (and also the largest private domestic banks), are the main price setters in the market. Therefore, the small and medium private domestic banks have to compete with low

rates to stay in the market and increase their market share.

Third, another relevant obstacle mentioned is macroeconomic factors, which is considered significant by almost half of the Argentine banks, and by only 13% of the Chilean banks. Long-term instability, taxes, disincentives to foreign investors, and exchange rate risk are the main aspects banks mention in terms of macroeconomic obstacles. In particular, foreign banks give macroeconomic factors the greatest importance, while public banks do not even consider them impediments. One possible explanation for the fact that banks mention the macroeconomic factors and at the same time still engage with SMEs could be that banks have developed coping mechanisms to deal with long-term instability, such as using short-term loans, secured loans, and variable rates.³² In fact, macroeconomic uncertainty (related to the history of aggregate volatility) seems to deter the development of a long-term credit market for SMEs, in particular in Argentina, and also appears to be responsible for the small number of unsecured loans offered. In both countries, a high percentage of banks' portfolios are collateralized. However, it is surprising that the other half of the Argentine banks do not consider macroeconomic factors significant, given that the Argentine crisis occurred only six years ago.

Fourth, regulations are regarded as significant obstacles by half of the Chilean banks, but by only 20% of the Argentine banks. However, to put this finding in context, it is important to note that bank responses in Chile are driven by just one particular regulation: the ceiling on interest rates. It is not the case that banks in that country view the general regulatory environment as an obstacle. On the other hand, in Argentina, although banks consider regulations to be reasonable, they mention a broad variety of regulatory aspects that could still be improved, which suggests that

-

³² The use of coping mechanisms in emerging market financial contracts is already documented in de la Torre and Schmukler (2004).

banks perceive the regulatory environment to be more broadly constraining than the one in Chile. First, documentation requirements continue to be costly for SMEs and could be simplified to some extent. Second, regulations impede banks to lend to SMEs with pension debts or tax arrears. Third, more flexibility to deal with the large informality of SMEs (especially the smallest ones) is mentioned. Fourth, regulatory requirements are more demanding for banks than for other financial intermediaries such as *mutuales* and cooperatives (which are not regulated by the Central Bank), leading SMEs to obtain financing outside of the banking system and, consequently, giving rise to "regulatory arbitrage." Fifth, taxes on financial transactions in Argentina and Chile (check tax and stamp tax, respectively) have a negative effect on SME lending because they deter financial intermediation of SMEs. This reduces the ability of banks to learn about some clients by looking at their history of banking operations and it also makes cross-selling harder. Although the stamp tax is only mentioned by Chilean banks, some Argentine provinces are also affected by a stamp tax. In neither country do public banks consider regulations to be a significant obstacle, while private domestic banks in both countries claim that regulations are an impediment. However, despite these specific issues, banks consider that regulatory requirements are either appropriate and beneficial or inconsequential. Indeed, many banks acknowledge that in absence of these regulations they would ask SMEs for the same information.

Fifth, lack of adequate demand is thought to be a significant obstacle by half of the Argentine banks interviewed, while none of the Chilean banks see it as relevant. Although some banks consider demand to be strong, they point out that many SMEs are not creditworthy (or not as creditworthy as they could be) due to the high levels of informality. In Argentina, anecdotal evidence from the interviewed

banks suggests that around 30% of the SMEs are served by financial entities. Most banks believe that there are plenty of worthy enterprises among the 70% that are underserved and that for unknown reasons do not approach banks. Hence, in an attempt to increase their involvement with the segment, there is strong competition over the high-quality SMEs that are already in the market and a significant outreach effort to attract those that are creditworthy but still outside the market. Also, banks state that SMEs demand mostly long-term loans with low fixed-rates, while banks primarily offer short-term variable-rate loans. Only one Argentine bank mentions that SMEs still lack confidence in banks after the crisis and that they prefer self-financing. Interestingly, banks declare that a large portion of approved credit lines are not fully used.

The obstacles given the lowest importance are the legal and contractual environment, the lending technology to SMEs, and bank-specific factors. Banks in Argentina acknowledge that the lending mechanisms and procedures are not simple, but they have developed know-how so that this does not represent an important obstacle. Some issues related to the legal and contractual environment are: the judiciary inefficiency, the weakness of contract and collateral enforcement, slow and costly bankruptcy procedures, and the weak protection of investors and property rights. However, banks have adapted their products to counter such obstacles by offering short-term, secured products that can be easily converted to cash, and usually by demanding a personal guarantee from SME owners (or their spouses). They also avoid filing for bankruptcy, and they generally carry out debt restructuring and out-of-

³³ Another study (Fundación Capital, 2006) presents alternative reasons to explain the lack of demand for credit from SMEs in Argentina. Among them we can find that 45.3% of SMEs do not apply because they are using other sources or do not need financing, 13.4% consider that interest rates are too high, 4.3% think that banks ask for too many requirements like balances, cash flows, fiscal situation of the firm and years as a bank's client, 3.4% of SMEs do not have a collateral and 2.6% do not trust in banks.

court settlements. The current macroeconomic situation, characterized by excess liquidity and low levels of default, is very favorable and mitigates these institutional deficiencies. Bank-specific factors are mostly mentioned by public banks, which recognize that they are more inefficient than private banks (in particular foreign banks), and they believe that this inefficiency discourages good SMEs from approaching them. The lack of qualified personnel is mentioned by both Argentine and Chilean banks as an obstacle for bank involvement with SMEs. Other bank-specific aspects mentioned are the fact that banks are learning to do business with SMEs and that the geographic presence of banks is limited. As for the nature of SME lending technology, banks point out the high fixed-costs, the difficulty to standardize risk management and apply scoring, and the difficulty in standardizing products.

When asked about possible areas in which government action could help enhance banks' incentives to increase SME lending, banks mostly mention the judicial, legal, and regulatory areas (Figure 5). Regarding the legal and judicial areas, Argentine banks consider that judicial processes are slow and that bankruptcy and insolvency laws are ineffective, while Chilean banks mostly mention the distortive effects of the stamp tax. Regarding regulations, Argentine banks highlight the need to improve the definition of guarantees and consider that the frequency of information requests should be lower in some cases, while Chilean banks mention that the interest rate ceiling should be removed and would like to be able to share guarantees. In general, banks both in Argentina and Chile wish to increase guarantees or subsidies, and both are fairly comfortable with the institutional environment. Some of the institutional improvements that Argentine banks consider would be beneficial are related to law enforcement and collateral execution processes, which banks point out, are hindering long-term financing. According to Argentine banks, the government

should continue promoting the development of reciprocal guarantee societies (SGRs). On the other hand, Chilean banks demand for an expedited payment of FOGAPE guarantees. More government work is needed to enhance credit bureaus, but the majority of the banks consider that the existence of public credit bureaus already plays a crucial role in facilitating SME lending.³⁴ In particular, Argentine banks state that the quality of the information should be enhanced and they would also like more information on companies, such as total amount of credit lines and guarantees in the banking system. Chilean banks would like financial statements to be available in order to assess companies' income-generating capacity.

Similar to what Table 2 does for drivers, Table 4 shows how obstacles vary by country and bank characteristics. The table shows that competition in the SME segment seems to be more of an obstacle for Argentine banks and for those with a higher market share. Consistent with the general expectations, macroeconomic factors are more important for Argentine banks. Interestingly, they are more relevant for private banks (both domestic and foreign), perhaps because public banks receive public assistance or might benefit in relative terms during turbulent times (when companies turn to them). Macroeconomic factors are also less important for large banks. Regulations are less relevant for Argentine banks, though this result is driven by the specific Chilean ceiling on interest rates (see next section). Furthermore, private domestic banks see regulations as more binding. Lack of adequate demand is perceived to be more important in Argentina and by private banks, but less so for banks with wider geographical presence. Banks not only view the legal and contractual environment as non-binding, but Table 4 also shows that there are no differences on how they vary across countries and banks. The same happens with

³⁴ Credit bureaus are considered to facilitate SME lending according to 92% of Argentine banks and 75% of Chilean banks.

bank-specific factors. The nature of lending technology is less of an obstacle for both types of private banks relative to public ones. In sum, this analysis highlights that although there are many similarities on how banks perceive the obstacles some differences arise, which might help shape policymaking.

6. Competition and Government Programs in the SME Segment

This section covers two remaining aspects that shape bank involvement with SMEs. First we analyze how competitive the market is. Second, we discuss to what extent banks' interest in serving SMEs is based on incentives generated through government programs.

According to most banks, the SME market is promising. However, there is no agreement on the size of the market, even within the same country. The market is large according to 70% of the banks in Argentina and 50% of the banks in Chile, while it is considered to be small by around 30% of the banks in both countries. This discrepancy is likely due to the fact that the SME universe is not clearly identified in either country. In Argentina, as an approach to resolving this issue, a program by SEPyME called "MAPA PyME," is being launched. This SMEs Sub-Secretary program tries to describe the SMEs' universe based on an assessment of all formal SMEs in the country.

Banks still have a fair amount of outreach to do despite the strong demand for bank services observed in the SME segment, according to 81% of the banks. Although SME demand does not make use of all the available credit offered by the banking system, banks point out that demand is indeed growing strongly. However, as mentioned above, SMEs that seek credit are not always creditworthy. Many banks believe that there are "high-quality" SMEs that could benefit from accessing bank

financing but that do not approach banks for unknown reasons. Therefore, banks feel the need to reach out to these SMEs. High competition over the best SMEs that are already in the market also explains the need to make efforts to attract new SME clients. Banks rely on the pro-active role of relationship managers, and some banks even carry out special campaigns to attract SMEs. One bank states that since SMEs do not react to advertisements as promptly as consumers, efforts to attract them are greater.

The market is highly competitive, but unsaturated. High competition in the SME segment could also explain the need to reach out to SMEs. All the banks interviewed believe that the SME segment is competitive. However, there is no consensus on the degree of saturation of the market; 80% of the banks believe there is still room for new competitors, while the rest believes the SME market is saturated. Note that this result does not necessarily contradict the result on Figure 4, which shows that banks in Argentina (as opposed to Chile) consider that competition in the segment is an obstacle to their involvement with SMEs. The differences regarding the obstacles might come from the fact that Argentina has many more banks in the system and that most of them are trying to engage with SMEs. In Chile, there are fewer banks (25 versus 67 in Argentina), with a larger and probably more stable market share each. So even though they still compete, Chilean banks do not perceive this competition to be an obstacle. Furthermore, banks in these countries might require different rates of return to enter the market. If Argentina is perceived as more volatile than Chile (as most surveys suggest), Argentine banks would compete in a segment if there is less competition and thus higher expected returns.

The structure of the SME loan market differs between Argentina and Chile, and there is no full agreement within the countries. Among Argentine banks, 62% of

the banks perceive that the market is atomized, 23% believe a small number of banks dominate the market, and only 15% deem it to be segmented. In Chile, the answers are not as dispersed: 75% of the Chilean banks consider that the SME loan market is dominated by a small number of banks and 13% see it as a segmented market. To summarize, in Argentina most of the banks perceive the market to be atomized, while in Chile the prevailing belief is that a small number of banks dominate the market (Figure 6.A).

The main players in the SME market are large private banks, according to the majority of the banks in Argentina and Chile. They are followed in importance by public banks and niche banks. Other financial intermediaries and small banks also play a relevant role in the SME loan market, although a minority of the banks interviewed consider these to be main players (Figure 6.B).

There have been significant changes over time in SME lending in terms of competition, consolidation, and entry, according to 70% of the banks. In both countries many banks have participated in the segment for years, but others are entering with very aggressive policies. Another significant finding is that almost 62% of the banks in both countries believe that banks lend to SMEs after seeing other banks do so. Almost 60% of the banks believe that there is a first mover's advantage: client's loyalty, brand identification, and know-how of the market are the most frequently mentioned advantages. Although more than half of the banks answer that there is a first movers' advantage, the difference in perceptions is significant across bank types. Most private domestic banks consider that a first movers' advantage does exist while public banks deny it. Most foreign banks answer affirmatively in Argentina. In Chile the process of capturing SME clients appears to be more advanced than in Argentina: while in Argentina SMEs usually have five or six banks serving

them in different aspects of their business, the Chilean market has evolved to the point that an SME is only served by one or two banks, which offer an ample variety of products and services to fulfill the needs of SMEs. In Chile the importance of the relationship manager appears to be crucial for SMEs when choosing banks.

Despite all this competition, the Argentine and Chilean governments have implemented several programs to promote the involvement of banks in the SME segment. But these incentives notwithstanding, only half of the banks interviewed claim that they use these programs (still, 80% believes their overall effect is positive). Furthermore, these programs are not an important determinant of bank involvement with the segment. Indeed, banks do not base their relation with SMEs on these programs. Banks might use them, but they are not the key driver of their involvement. Although all types of banks view these programs favorably, in terms of additionality generated there seems to be some disagreement.

In Argentina, all banks are familiar with government programs, but none consider them essential. The most frequently mentioned programs are the interest rate subsidies offered by the SME Secretary (SEPyME), and the Argentine National Guarantee System (that includes Reciprocal Guarantee Societies, SGRs). FONTAR (Argentine Technological Fund), and the credit lines offered by the Inter-American Development Bank are also mentioned but banks do not believe they have a significant impact. Most Argentine banks believe that the additionality generated by these programs is very low. Although 90% of the banks use the interest rate subsidy, they claim that they do not make use of it to attract new clients, but rather to lower the rate or increase credit to existing clients. Only a few private domestic and public banks state that the SEPyME interest rate subsidy generates additionality. The SGRs are employed by almost 20% of the banks interviewed and they are mostly used to

increase the credit line to existing clients. Only private domestic banks claim that these guarantee societies allow them to attract new clients.

Most Chilean banks make use of government programs and believe these programs do generate additionality. In Chile the programs FECU-PyME (Uniform Codified Reporting Scheme for SMEs), CORFO (Corporation for Production Promotion), and FOGAPE (Small Enterprise Guarantee Fund) are considered most relevant by banks. Most Chilean banks indicate that the programs FOGAPE and CORFO do generate additionality, mainly by attracting new clients. Foreign banks seem to be among the ones that benefit the most from these programs. FECU-PyME is mostly used by private banks, but they do not see it as a program that generates additionality, while Chile Compite is only used by one private domestic bank interviewed.

7. Conclusions

Using evidence from banks in Argentina and Chile, this paper explored the drivers and obstacles that shape bank involvement with SMEs and, in particular, investigated to what degree the competitive and institutional environments appear to play an important role. We find that SMEs have become a strategic sector for banks. This signals a gap in perceptions since it contradicts the view that banks are not interested in serving SMEs. Furthermore, banks' interest in SMEs is not based on government programs. Instead, this change seems to be explained in part by decreasing profits in other segments due to the emerging competition, which in turn encourages banks to look for new markets as the growth potential based on the consumer and corporate sectors declines. Banks focus on SMEs because they estimate that the segment's elevated profits will more than compensate for the higher implied

costs and risks. Furthermore, banks might be attracted by the increasing participation of SMEs in the productive chains of the economy. This occurs in a context of apparent significant changes in industrial organization, in which large corporations outsource processes and actively support their SME clients and suppliers to foster their own growth.

Banks consider that the SME lending market is large, unsaturated, and prospects are optimistic in both countries. The importance of the SME segment has grown to the point that most banks have created separate units to serve it and compete intensively among themselves to try to capture new SMEs as clients. In other words, the engagement between banks and SMEs has become integral since banks offer SMEs a great variety of services and lending products. This questions the traditional focus of the literature on banks connecting to SMEs through relationship lending. In the case of international banks present in both countries, the strategies to engage SMEs across countries are remarkably similar. Although the SME universe is not clearly identified in Argentina or Chile, banks are aware of the large number of high-quality, untapped SMEs that could benefit from accessing bank financing and, consequently, banks are actively reaching out to them.

Since banks have developed coping mechanisms that help them overcome some of the obstacles in SME financing, the particular institutional environment in each country is not considered by most banks a binding constraint for financing SMEs. Namely, the potential benefits of serving SMEs more than compensate for the possible institutional deficiencies, given that banks can reduce the risk of dealing with the segment. Among other things, banks have developed the mechanisms to deal with informality, regulatory requirements, documentation and paperwork burden, and the

³⁵ See de la Torre, Martinez Pería, and Schmukler (2008).

costly constitution of guarantees. Needless to say, this imposes an extra cost to the system. For example, banks have limited the range of products they offer to SMEs to cope with macroeconomic and contractual risk.³⁶ They offer mostly short-term, secured products, making an intense use of immovable guarantees and always demanding the owners' guarantee. Furthermore, perhaps another consequence of the institutional shortcomings is that banks' engagement with SMEs is based primarily on services rather than loans, reducing banks' exposure to SME risk.³⁷ The institutional environment is likely to be more relevant for other types of financing, like long-term loans in fixed rates in domestic currency and for countries with weaker institutional frameworks. For the types of cases analyzed in this paper, policy action might focus on complementing what banks need to expand their participation and provide the type of financing that might still be lacking.

Although the surveys were conducted at one point in time, banks were able to describe to us the previous evolution of their engagement with SMEs and their perspectives for future engagement. This type of evidence points to a structural change in the relation between banks and SMEs: Argentina and Chile appear to be facing an embryonic "bancarization" of the SME segment. Banks have discovered a key, untapped segment and are making substantial investments to develop the relation with SMEs and compete for them. Moreover, banks are developing the internal structures and mechanisms to work with SMEs, adapting their business and risk models to reduce the costs and risks of the segment. As part of this process, banks still need to obtain better measures of their exposure to the segment in terms of income, costs, or risk. Thus, there seems to be a learning process through which banks are

³⁶ The ability to cope with risk is observed in emerging economies in general; see de la Torre and Schmukler (2004).

³⁷ See de la Torre, Martinez Pería, and Schmukler (2008).

developing the structure to deal with SMEs. Still, some changes might occur as the macroeconomic cycle turns, since the favorable macroeconomic conjuncture mitigates the institutional deficiencies as the banking system has witnessed historically high levels of liquidity and low levels of non-performing loans.

The structural changes in the relation between banks and SMEs do not mean that cyclical factors have been unimportant. Part of the move toward SME lending could be explained by the overall macroeconomic stability, high liquidity, and low rates observed in Argentina and Chile in the years prior to the surveys, which might have contributed to the saturation of the market for consumer and corporate loans. Given the crisis that started in the US sub-prime sector and is spreading around the world, it would be interesting to see how banks are revising their strategies. Anecdotal evidence suggest that banks still maintain a high interest in serving SMEs, because they view the recent increase in the demand from large corporates (unable to tap funds in capital markets during crisis times) as temporary.

Despite the involvement of banks with SMEs, there is still substantial room to improve SME financing, which requires action on behalf of banks, SMEs, and policymakers. SMEs would probably benefit from an expanded offer of long-term credit and would likely gain more access to finance if they reduced their levels of informality. Authorities could facilitate this process of formalizing the SMEs' economic activity. Governments could also help by improving the overall institutional environment, working with the private sector in the specific rules and regulations that might be hindering the development of long-term financing. But the rules and regulations for markets to be completed are very specific to each country, as evident from the bank responses described in this paper. For example, banks in Chile mention that allowing guarantees to be shared could unlock credit.

Access to information seems crucial to make progress in SME financing. In particular, improving the infrastructure that provides information seems to be a key aspect that could enhance financing to SMEs. This involves the supply side of financing (banks), the demand side (SMEs), and the government, which regulates and shapes the institutional environment. For example, the lack of adequate information regarding the SME universe is an important problem to be tackled and governments could help substantially with it. It would be especially useful to identify the universe of SMEs and to quantify the share of SMEs that actually has access to finance. Moreover, given the banks' interest in serving SMEs, having more information about the actual needs of SMEs (from the financial sector) would be important to help guide future reform efforts. On the supply/bank side, additional information could also help, such as the percentage of SMEs that are rejected by banks when applying for a loan and the contribution of the segment to banks' income, costs, and risks. Governments could also help reduce the existing information gap by increasing the flow of information regarding the evolution of the SME market, for example, by making SMEs' balance sheets public and easily available. Of course, improving information availability would be easier to accomplish for medium-sized enterprises than for small ones, given the smaller number of medium-sized companies and their relative visibility, sophistication, and capacity to act as large corporations.

Finally, the analysis from this paper leads us to two final conclusions. First, to the extent that there is a trade off in government actions, governments could increase their attention to reducing the cost of lending to SMEs (so banks lend more), rather than increasing the government programs that foster the quantity of lending itself. For example, governments could help reduce the informational gaps and change the specific rules and regulations that inhibit banks to have a deeper and more long-term

involvement with SMEs. Second, the fact that banks learn to operate in the different institutional environments does not mean that there could not be several improvements in this area (which are particular to each country and circumstance) that would foster SME lending even more.

8. References

- Ayyagari, M., Beck, T., and Demirgüç-Kunt, A., 2007. Small and Medium Enterprises across the Globe. *Small Business Economics* 29, 415-434.
- Beck, T., Demirgüç-Kunt, A., Honohan, P., 2008. Finance for All? Policies and Pitfalls in Expanding Access. World Bank. Washington, DC.
- Beck, T., Demirgüç-Kunt, A., Laeven, L., and Maksimovic, V., 2006. The Determinants of Financing Obstacles. *Journal of International Money and Finance* 25, 932-952.
- Beck, T., Demirgüç-Kunt, A., and Maksimovic, V., 2005. Financial and Legal Constraints to Firm Growth: Does Firm Size Matter? *Journal of Finance* 60, 137-177.
- Beck, T., Demirgüç-Kunt, A., and Maksimovic, V., 2008. Financing Patterns around the World: Are Small Firms Different? *Journal of Financial Economics*, forthcoming.
- Beck, T., Klapper, L., Mendoza, J.C., 2008. The Typology of Partial Credit Guarantee Funds around the World. Mimeo. World Bank.
- de la Torre, A., Gozzi, J. C., and Schmukler, S., 2007. Innovative Experiences in Access to Finance: Market Friendly Roles for the Visible Hand? World Bank Policy Research Working Paper 4326.
- de la Torre, A., Martínez Pería, M. S., and Schmukler, S., 2008. Bank Involvement with SMEs: Beyond Relationship Lending, World Bank Policy Research Working Paper 4649.
- de la Torre, A., Martínez Pería, M. S., Politi, M., Schmukler, S. and Vanasco, V., 2008. How Do Banks Serve SMEs? Business and Risk Management Models.

 Mimeo. World Bank.

- de la Torre, A. and Schmukler, S., 2004. Coping with Risks through Mismatches:

 Domestic and International Financial Contracts for Emerging Economies,

 International Finance 7:3, 349–90.
- Demirgüç-Kunt, A., and Maksimovic, V., 1998. Law, Finance, and Firm Growth. *Journal of Finance* 53, 2107-2137.
- FELABAN (Latin American Federation of Bankers), 2007. Tracking Study of the Willingness Shown by Financial Institutions from Latin America and the Caribbean to Finance Small and Medium-Sized Enterprises, Bogota, Colombia.
- Fundación Capital, 2006. PyMEs, Inversión y Crédito: Presentación de la Encuesta EFI-PyMEs, Buenos Aires, Argentina.
- Heritage Foundation, 2008. Index of Economic Freedom. Washington, DC.
- IADB (Inter-American Development Bank), 2004. Unlocking Credit: The Quest for Deep and Stable Lending. The Johns Hopkins University Press, Baltimore, Maryland.
- Kaufmann, D., Kraay, A., and Mastruzzi, M., 2008. Governance Matters VII: Aggregate and Individual Governance Indicators, 1996-2007. World Bank Policy Research Working Paper 4654.
- La Porta, R., Lopez de Silanes, F., Shleifer, A., Vishny, R., 1997. Legal Determinants of External Finance. *Journal of Finance* 52, 1131-1150.
- La Porta, R., Lopez de Silanes, F., Shleifer, A., Vishny, R., 1998. Law and Finance. *Journal of Political Economy* 106, 1113-1155.
- Schiffer, M. and Weder, B., 2001. Firm Size and the Business Environment: Worldwide Survey Results. International Finance Corporation Discussion Paper 43.

- Stephanou, C. and Rodriguez, C., 2008. Bank Financing to Small- and Medium-Sized Enterprises (SMEs) in Colombia. World Bank Policy Research Working Paper 4481.
- World Bank, 2007a. Bank Financing to Small and Medium Enterprises: Survey Results from Argentina and Chile. Washington, D.C.
- World Bank, 2007b. Bank Lending to Small and Medium Enterprises: The Republic of Serbia. Washington, D.C.
- World Bank, 2007c. Doing Business in Latin America 2008. Washington, D.C.
- World Economic Forum, 2007. *Global Competitiveness Report 2007-2008*. Geneva, Switzerland.

Table 1 Bank involvement with SMEs

This table presents Tobit regressions of diverse measures of the degree of bank involvement with SMEs on country and bank attributes. The regressions are bounded between zero and one since all of the dependent variables are expressed as fractions. Bivariate and multivariate regressions are presented in separate columns. The bivariate column presents estimates for different bivariate regressions, where the number of observations vary by regression. Standard errors are in parenthesis. The dependent variables are the percentage of the number branches, personnel, deposits, debtors, loans, plus the amount of loans dedicated to SMEs, using data for 2005 and 2006. Regarding the independent variables, the dummy *country* takes the value one for Argentina and zero for Chile. *Private foreign* and *private domestic* are dummy variables that represent the type of bank (both are included for the bivariate regression); the benchmark is domestic public banks. *Location* represents the percentage of regions in the country in which the bank has branches. *Market share* represents the share of the bank's net assets relative to the total net assets of the sample of banks in each country. *, **, *** represent 10%, 5% and 1% significance levels, respectively.

Share	dedicated	to SMF

	Number of branches		Number o	of personnel	Number of deposits		
=	Bivariate	Multivariate	Bivariate	Multivariate	Bivariate	Multivariate	
_	(1)	(2)	(3)	(4)	(5)	(6)	
Country	0.091	0.037	0.039	0.043	0.072	0.148**	
•	(0.153)	(0.139)	(0.046)	(0.047)	(0.046)	(0.069)	
Private foreign	-0.511***	-0.535***	-0.059	-0.084	-0.068	-0.041	
	(0.122)	(0.142)	(0.073)	(0.062)	(0.140)	(0.082)	
Private domestic	-0.060	-0.103	0.059	0.037	-0.080	-0.048	
	(0.104)	(0.145)	(0.086)	(0.069)	(0.136)	(0.070)	
Location	-0.232	-0.029	-0.119*	-0.044	0.017	0.060	
	(0.144)	(0.190)	(0.061)	(0.067)	(0.067)	(0.085)	
Market share	-0.363	-0.407	-0.272	-0.081	0.439	0.634*	
	(0.404)	(0.763)	(0.304)	(0.314)	(0.481)	(0.382)	
Constant	0.806***	1.144***	0.095**	0.166**	0.091***	-0.020	
	(0.134)	(0.216)	(0.038)	(0.078)	(0.020)	(0.097)	
No. of observations		36		26		29	

Share dedicated to SMEs

	Number of debtors		Numbe	Number of loans		Amount of loans		
-	Bivariate	Multivariate	Bivariate	Multivariate	Bivariate	Multivariate		
	(7)	(8)	(9)	(10)	(11)	(12)		
Country	0.024	-0.015	0.209***	0.082	0.263***	0.250***		
	(0.037)	(0.045)	(0.054)	(0.061)	(0.064)	(0.044)		
Private foreign	0.067	0.079	0.208***	0.171***	-0.049	-0.086		
	(0.052)	(0.054)	(0.059)	(0.054)	(0.078)	(0.069)		
Private domestic	0.057	0.061**	0.113*	0.104*	0.222**	0.174**		
	(0.040)	(0.029)	(0.060)	(0.056)	(0.092)	(0.073)		
Location	-0.056	-0.070	-0.227**	-0.087	-0.214	0.074		
	(0.073)	(0.094)	(0.101)	(0.112)	(0.133)	(0.133)		
Market share	-0.161	-0.052	-1.997***	-0.867*	-1.230***	-0.449		
	(0.242)	(0.202)	(0.604)	(0.501)	(0.407)	(0.406)		
Constant	0.097***	0.115	0.084***	0.175*	0.150***	0.094		
	(0.019)	(0.085)	(0.019)	(0.102)	(0.042)	(0.098)		
No. of observations		30		23		35		

Table 2
Drivers of bank involvement with SMEs

This table presents ordered Probit regressions of diverse measures of the degree of bank involvement with SMEs on country and bank attributes. Bivariate and multivariate regressions are presented in separate columns. The bivariate column presents estimates for different bivariate regressions, where the number of observations vary by regression. Standard errors are in parenthesis. The dependent variables are ranked from one to five, representing the degree to which banks consider each driver to be significant in their involvement with SMEs, one being not significant and five extremely significant. Regarding the independent variables, the dummy *country* takes the value one for Argentina and zero for Chile. *Private foreign* and *private domestic* are dummy variables that represent the type of bank (both are included for the bivariate regression); the benchmark is domestic public banks. *Location* represents the percentage of regions in the country in which the bank has branches. *Market share* represents the share of the bank's net assets relative to the total net assets of the sample of banks in each country. *, ***, **** represent 10%, 5% and 1% significance levels, respectively.

	Perceived profitability in SME segment		Intense competition for large corporates		Intense competition for retail customers	
-	Bivariate	Multivariate	Bivariate	Multivariate	Bivariate	Multivariate
	(1)	(2)	(3)	(4)	(5)	(6)
Country	-0.017	0.501	-0.994*	-0.281	0.107	-0.116
	(0.613)	(0.717)	(0.581)	(0.799)	(0.575)	(0.829)
Private foreign	6.345***	6.733***	-0.127	0.357	4.772***	4.801***
	(0.603)	(1.184)	(0.816)	(0.857)	(0.690)	(0.627)
Private domestic	-0.311	-0.135	-0.236	0.251	5.943***	6.049***
	(0.625)	(0.918)	(0.790)	(0.963)	(0.836)	(0.348)
Location	0.576	0.381	0.926	-1.022	0.078	0.085
	(0.691)	(1.099)	(1.014)	(1.161)	(0.740)	(1.041)
Market share	1.227	2.331	14.515***	16.375***	1.289	1.836
	(3.669)	(4.781)	(4.901)	(6.076)	(3.745)	(5.087)
No. of observations		19		18		19
R-squared		0.288		0.249		0.149

	Excessive exposure to large corporates		Excessive exposure to retail customers sector		Posibility to team up with large clients	
-	Bivariate	Multivariate	Bivariate	Multivariate	Bivariate	Multivariate
	(7)	(8)	(9)	(10)	(11)	(12)
Country	-0.854	-1.675*	-1.109*	-1.248	1.102*	1.546**
	(0.601)	(0.884)	(0.618)	(0.862)	(0.606)	(0.617)
Private foreign	-0.841	-0.290	-1.006	-1.053	0.473	0.086
	(1.181)	(1.333)	(1.170)	(1.073)	(0.573)	(0.835)
Private domestic	-1.197	-0.759	-1.196	-0.850	0.038	-0.625
	(1.161)	(1.284)	(1.122)	(1.058)	(0.592)	(0.795)
Location	-0.447	-2.215*	0.459	-0.408	-0.079	1.168
	(0.758)	(1.331)	(0.846)	(1.277)	(0.680)	(1.073)
Market share	2.078	1.150	3.414	0.702	-2.320	-3.843
	(2.979)	(3.707)	(2.904)	(4.421)	(2.482)	(3.279)
No. of observations		19		19		20
R-squared		0.161		0.137		0.130

Table 3 Obstacles to bank involvement with SMEs

Banks were asked to list up to three important factors that are obstacles to their involvement with SMEs. This table lists the most frequently mentioned factors and repeats the information illustrated in Figure 4 by presenting the percentage of banks that consider each type of obstacle significant, very significant, or extremely significant. The percentage of banks that consider these factors marginally significant or not significant is not presented in the table. Banks were asked to "Indicate to what degree the following factors are important obstacles to your exposure to SMEs. Rate them and specify up to the three most important aspects within these categories."

Type of obstacle	Percentage of consider the ob signifi	stacle at least	Frequently mentioned factors
SME-specific factors	Argentina 46%	Chile 50%	Scoring is inadequate Informality Lack of quality information Cannot evaluate SMEs based on behavior Costs to improve information are high Family management Lack of adequate guarantees
Competition	69%	13%	Difficult to continue growing Narrow margins Private banks in high quality segments Public banks distort the market Unfair competitors (strong private and public banks)
Macroeconomic	46%	13%	Long term instability Ceiling prices Exchange rate or interest rate risk Ban on exports
Regulations	23%	50%	Too much documentation required Ceiling rates Inflexibility Financial transaction taxes / Stamp tax Obstacles in foreign exchange transactions Regulation forces banks to act as tax authorities
Legal and contractual environment	31%	38%	Judicial inefficiency Judicial insecurity / dependent on politics Bankruptcy process very costly Lack of contract enforcement
Nature of SME lending technology	23%	38%	Costly Difficult to standardize risk management (scoring and rating) Need to adapt commercial model Difficult to standardize products and procedures High entry costs
Lack of adequate demand	46%	0%	Supply exceeds demand SMEs only demand low fixed rates in pesos SMEs prefer self-financing SMEs think banks are tough
Bank-specific factors	23%	13%	Some banks are new to the segment Inefficiency Lack of technology and qualified personnel Lack of expert analyst in commercial and risk sectors Limited geographic presence

Table 4
Obstacles to bank involvement with SMEs

This table presents ordered Probit regressions of diverse obstacles to bank involvement with SMEs on country and bank attributes. Bivariate and multivariate regressions are presented in separate columns. The bivariate column presents estimates for different bivariate regressions, where the number of observations vary by regression. Standard errors are in parenthesis. The dependent variables are ranked from one to five, representing the degree to which banks consider each obstacle to be significantly affecting their involvement with SMEs, one being not significant and five extremely significant. Regarding the independent variables, the dummy country takes the value one for Argentina and zero for Chile. Private foreign and private domestic are dummy variables that represent the type of bank (both are included for the bivariate regression); the benchmark is domestic public banks. Location represents the percentage of regions in the country in which the bank has branches. Market share represents the share of the bank's net assets relative to the total net assets of the sample of banks in each country. *, ***, **** represent 10%, 5% and 1% significance levels, respectively.

	Macroeconomic factors		Regulations		Legal and contractual		Bank specific factors	
-	Bivariate Multivariate		Bivariate	Multivariate	Bivariate	Multivariate	Bivariate	Multivariate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Country	6.201***	7.317***	-0.911*	-2.519**	0.331	0.744	-0.251	-1.106
-	(0.764)	(2.697)	(0.540)	(1.050)	(0.567)	(0.577)	(0.522)	(0.713)
Private foreign	5.946**	7.515***	0.558	0.952	0.760	1.117	-0.011	0.069
	(2.529)	(2.336)	(0.762)	(0.586)	(0.874)	(0.950)	(0.823)	(0.930)
Private domestic	5.948**	7.238***	2.074***	3.790***	0.304	0.617	0.374	0.498
	(2.501)	(1.904)	(0.678)	(0.790)	(0.912)	(0.961)	(0.818)	(0.852)
Location	-0.600	-0.383	0.321	-1.062	0.611	0.609	-1.205	-1.664
	(0.948)	(1.827)	(0.937)	(0.965)	(0.784)	(1.012)	(0.763)	(1.457)
Market share	-7.672*	4.115	-0.364	2.952	1.229	2.804	-5.432	-4.344
	(4.401)	(13.935)	(3.059)	(3.002)	(3.170)	(5.153)	(3.417)	(4.069)
No. of observations		19		20		20		19
R-squared		0.253		0.405		0.070		0.120

	SME-specific factors		Nature of the lending technology		Competition in the SME segment		Lack of adequate demand	
_	Bivariate	Multivariate	Bivariate	Multivariate	Bivariate	Multivariate	Bivariate	Multivariate
-	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Country	0.183	-0.014	-0.005	-0.566	1.687***	1.632***	6.192***	11.582***
-	(0.474)	(0.547)	(0.629)	(0.892)	(0.589)	(0.532)	(0.357)	(4.030)
Private foreign	-0.754	-0.919	-7.150***	-7.025***	-0.898	-1.705	5.453***	12.317***
	(0.510)	(0.818)	(0.605)	(0.907)	(1.013)	(1.305)	(0.617)	(4.363)
Private domestic	0.099	-0.083	-5.912***	-5.720***	0.730	0.342	6.024***	12.592***
	(0.638)	(0.733)	(0.417)	(0.845)	(1.066)	(1.189)	(0.820)	(4.232)
Location	-0.403	0.050	-1.155	-1.453	-1.811	-0.309	-1.344*	-3.062**
	(0.784)	(1.308)	(0.747)	(1.156)	(1.132)	(1.333)	(0.691)	(1.559)
Market share	-1.097	-1.802	-0.358	1.317	-4.625*	-6.830	-7.653	26.957
	(3.287)	(4.273)	(4.376)	(5.652)	(2.504)	(4.172)	(5.685)	(18.070)
No. of observations		20		19		19		20
R-squared		0.055		0.278		0.340		0.391

Figure 1
Products offered to SMEs (I)

This figure shows the range of products that banks offer to SMEs and the percentage of banks that mentioned each product. "Other" includes insurance products, mortgages, credit cards, advances, and promissory notes. Banks were asked: "List the main lending products you offer to SMEs."

Main products offered to SMEs

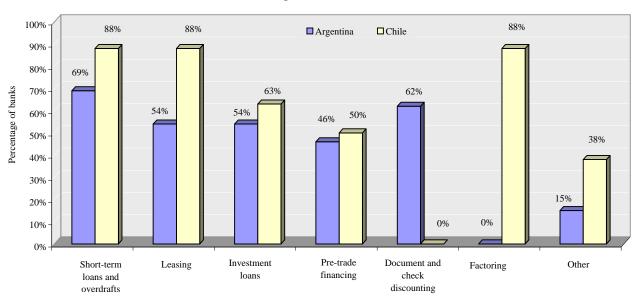
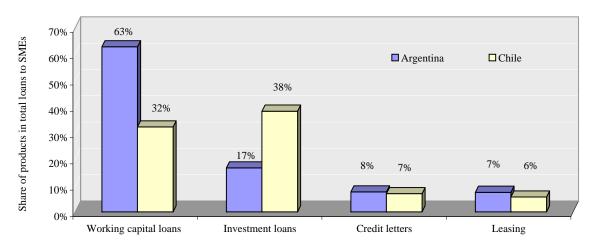


Figure 2 Products offered to SMEs (II)

The source of this figure is the data collected from banks, for 2006. The banks that answered the information displayed in Figure 2.A represent approximately 40% of the private sector loans in each country and the banks that answered the information displayed in Figure 2.B represent between 15% and 20% of loans to the private sector in each country. Figure 2.B displays the weighted average of the terms of the main lending products to SMEs, weighted according to the amount of each product that each bank lends.

A. Share of main products in total lending to SMEs



B. Average term of main lending products to SMEs

Weighted average according to bank lending of each product

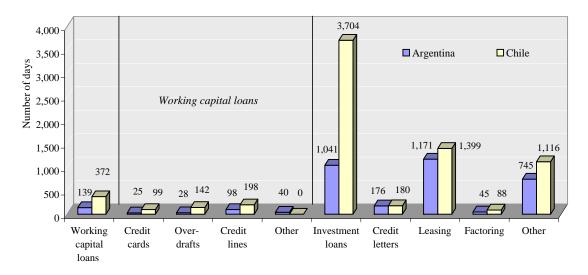


Figure 3
Drivers of bank involvement with SMEs

Banks were asked to indicate to what degree their involvement with SMEs is driven by the factors presented in this figure. The options available to qualify the importance of these factors vary from not significant to extremely significant/crucial. This figure shows the percentage of banks that consider these factors significant, very significant, or extremely significant/crucial drivers. The percentage of banks that consider these factors marginally significant or not significant is not presented. It should be noted that "Social objective" and "Strategic sector" are not factors given by the questionnaire, but they are mentioned as a relevant factor by some banks. "Other segments" refers to the corporate and/or retail segments. Banks were asked "To what degree is your involvement with SMEs driven by the following?: i) Perceived profitability in the SME segment, ii) Intense competition for large corporations, iii) Intense competition for retail customers, iv) Excessive exposure to large corporations, v) Excessive exposure to retail customer service, vi) Possibility to seek out SMEs through existing relations with large clients (e.g. reverse factoring), and vii) Other (specify)."

Main drivers

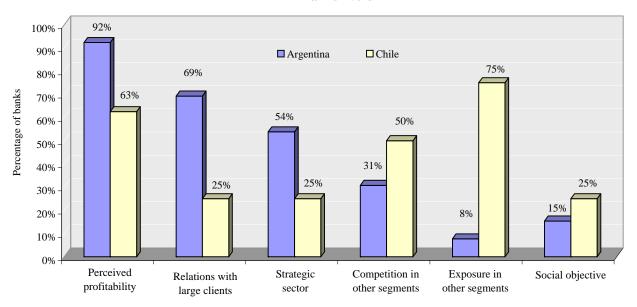


Figure 4
Obstacles to bank involvement with SMEs

Banks were asked to indicate to what degree the factors observed in the figure are important obstacles to their exposure to SMEs. This figure shows the percentage of banks that consider each factor significant, very significant, or extremely significant/crucial. The percentage of banks that consider these factors marginally significant or not significant is not presented in the figure. Banks were asked to "Indicate to what degree the following factors are important obstacles to their exposure to SMEs. Rate them and specify up to the three most important aspects within these categories."

Main obstacles

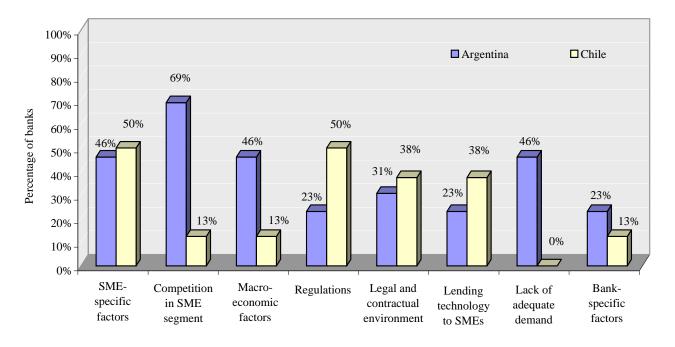


Figure 5
Role of the government

This figure displays the percentage of banks that answer affirmatively that government actions could increase the appeal of SME lending in each area. Banks were asked: "Do you think the government could increase the appeal of SME lending through actions in the following areas?"

Areas in which government action could promote SME lending

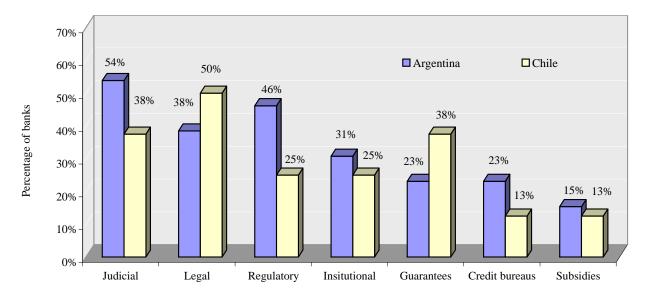
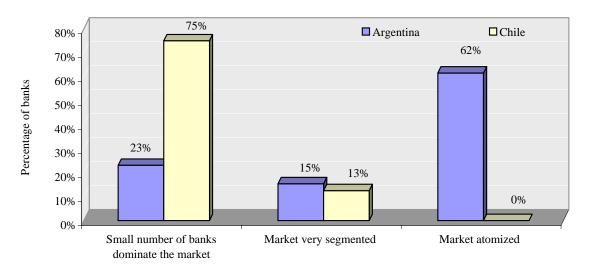


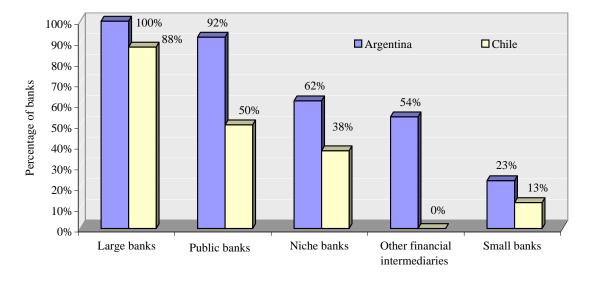
Figure 6 Market structure

This figure analyzes the SME lending market structure and the main players in the market as perceived by banks. For Figure 6.A banks were asked: "What is the market structure of the SME loan market?" For Figure 6.B: "Who are the main players in SME financing?"

A. What is the market structure of the SME loan market?



B. Who are the main players in SME financing?



CESifo Working Paper Series

for full list see www.cesifo-group.org/wp (address: Poschingerstr. 5, 81679 Munich, Germany, office@cesifo.de)

- 2589 Hans Jarle Kind, Marko Koethenbuerger and Guttorm Schjelderup, Should Utility-Reducing Media Advertising be Taxed?, March 2009
- 2590 Alessandro Cigno, How to Avoid a Pension Crisis: A Question of Intelligent System Design, March 2009
- 2591 Helmut Lütkepohl and Fang Xu, The Role of the Log Transformation in Forecasting Economic Variables, March 2009
- 2592 Rainald Borck, Hyun-Ju Koh and Michael Pflüger, Inefficient Lock-in and Subsidy Competition, March 2009
- 2593 Paolo M. Panteghini, On the Equivalence between Labor and Consumption Taxation, March 2009
- 2594 Bruno S. Frey, Economists in the PITS?, March 2009
- 2595 Natalie Chen and Dennis Novy, International Trade Integration: A Disaggregated Approach, March 2009
- 2596 Frédérique Bec and Christian Gollier, Term Structure and Cyclicity of Value-at-Risk: Consequences for the Solvency Capital Requirement, March 2009
- 2597 Carsten Eckel, International Trade and Retailing, March 2009
- 2598 Gianni De Nicolò and Iryna Ivaschenko, Global Liquidity, Risk Premiums and Growth Opportunities, March 2009
- 2599 Jay Pil Choi and Heiko Gerlach, International Antitrust Enforcement and Multi-Market Contact, March 2009
- 2600 Massimo Bordignon and Guido Tabellini, Moderating Political Extremism: Single Round vs Runoff Elections under Plurality Rule, April 2009
- 2601 Ana B. Ania and Andreas Wagener, The Open Method of Coordination (OMC) as an Evolutionary Learning Process, April 2009
- 2602 Simon Gächter, Daniele Nosenzo, Elke Renner and Martin Sefton, Sequential versus Simultaneous Contributions to Public Goods: Experimental Evidence, April 2009
- 2603 Philippe Jehiel and Andrew Lilico, Smoking Today and Stopping Tomorrow: A Limited Foresight Perspective, April 2009

- 2604 Andreas Knabe, Steffen Rätzel, Ronnie Schöb and Joachim Weimann, Dissatisfied with Life, but Having a Good Day: Time-Use and Well-Being of the Unemployed, April 2009
- 2605 David Bartolini and Raffaella Santolini, Fiscal Rules and the Opportunistic Behaviour of the Incumbent Politician: Evidence from Italian Municipalities, April 2009
- 2606 Erkki Koskela and Jan König, Can Profit Sharing Lower Flexible Outsourcing? A Note, April 2009
- 2607 Michel Beine, Frédéric Docquier and Çağlar Özden, Diasporas, April 2009
- 2608 Gerd Ronning and Hans Schneeweiss, Panel Regression with Random Noise, April 2009
- 2609 Adam S. Booij, Bernard M.S. van Praag and Gijs van de Kuilen, A Parametric Analysis of Prospect Theory's Functionals for the General Population, April 2009
- 2610 Jeffrey R. Brown, Julia Lynn Coronado and Don Fullerton, Is Social Security Part of the Social Safety Net?, April 2009
- 2611 Ali Bayar and Bram Smeets, Economic, Political and Institutional Determinants of Budget Deficits in the European Union, April 2009
- 2612 Balázs Égert, The Impact of Monetary and Commodity Fundamentals, Macro News and Central Bank Communication on the Exchange Rate: Evidence from South Africa, April 2009
- 2613 Michael Melvin, Christian Saborowski, Michael Sager and Mark P. Taylor, Bank of England Interest Rate Announcements and the Foreign Exchange Market, April 2009
- 2614 Marie-Louise Leroux, Pierre Pestieau and Gregory Ponthiere, Should we Subsidize Longevity?, April 2009
- 2615 Ronald MacDonald, Lukas Menkhoff and Rafael R. Rebitzky, Exchange Rate Forecasters' Performance: Evidence of Skill?, April 2009
- 2616 Frederick van der Ploeg and Steven Poelhekke, The Volatility Curse: Revisiting the Paradox of Plenty, April 2009
- 2617 Axel Dreher, Peter Nunnenkamp, Hannes Öhler and Johannes Weisser, Acting Autonomously or Mimicking the State and Peers? A Panel Tobit Analysis of Financial Dependence and Aid Allocation by Swiss NGOs, April 2009
- 2618 Guglielmo Maria Caporale, Roman Matousek and Chris Stewart, Rating Assignments: Lessons from International Banks, April 2009
- 2619 Paul Belleflamme and Martin Peitz, Asymmetric Information and Overinvestment in Quality, April 2009

- 2620 Thomas Dohmen, Armin Falk, David Huffman and Uwe Sunde, Are Risk Aversion and Impatience Related to Cognitive Ability?, April 2009
- 2621 Yin-Wong Cheung and Xingwang Qian, The Empirics of China's Outward Direct Investment, April 2009
- 2622 Frédérique Bec and Christian Gollier, Assets Returns Volatility and Investment Horizon: The French Case, April 2009
- 2623 Ronnie Schöb and Marcel Thum, Asymmetric Information Renders Minimum Wages Less Harmful, April 2009
- 2624 Martin Ruf and Alfons J. Weichenrieder, The Taxation of Passive Foreign Investment Lessons from German Experience, April 2009
- 2625 Yao Li, Borders and Distance in Knowledge Spillovers: Dying over Time or Dying with Age? Evidence from Patent Citations, April 2009
- 2626 Jim Malley and Ulrich Woitek, Technology Shocks and Aggregate Fluctuations in an Estimated Hybrid RBC Model, April 2009
- 2627 Jin Cao and Gerhard Illing, Endogenous Systemic Liquidity Risk, April 2009
- 2628 Thiess Buettner and Bjoern Kauder, Revenue Forecasting Practices: Differences across Countries and Consequences for Forecasting Performance, April 2009
- 2629 Håkan Selin, The Rise in Female Employment and the Role of Tax Incentives An Empirical Analysis of the Swedish Individual Tax Reform of 1971, April 2009
- 2630 Nick Johnstone and Ivan Hascic, Environmental Policy Design and the Fragmentation of International Markets for Innovation, April 2009
- 2631 Spiros Bougheas, Richard Kneller and Raymond Riezman, Optimal Education Policies and Comparative Advantage, April 2009
- 2632 Jay Pil Choi and Heiko Gerlach, Multi-Market Collusion with Demand Linkages and Antitrust Enforcement, April 2009
- 2633 Thor O. Thoresen, Income Mobility of Owners of Small Businesses when Boundaries between Occupations are Vague, April 2009
- 2634 Guido Schwerdt and Amelie C. Wuppermann, Is Traditional Teaching really all that Bad? A Within-Student Between-Subject Approach, April 2009
- 2635 Kurt R. Brekke, Luigi Siciliani and Odd Rune Straume, Hospital Competition and Quality with Regulated Prices, April 2009
- 2636 Peter Diamond, Taxes and Pensions, April 2009

- 2637 Shoshana Grossbard, How "Chicagoan" are Gary Becker's Economic Models of Marriage?, May 2009
- 2638 Roland Strausz, Regulatory Risk under Optimal Incentive Regulation, May 2009
- 2639 Holger Zemanek, Ansgar Belke and Gunther Schnabl, Current Account Imbalances and Structural Adjustment in the Euro Area: How to Rebalance Competitiveness, May 2009
- 2640 Harald Hau and Marcel Thum, Subprime Crisis and Board (In-)Competence: Private vs. Public Banks in Germany, May 2009
- 2641 Martin Halla, Mario Lackner and Friedrich G. Schneider, An Empirical Analysis of the Dynamics of the Welfare State: The Case of Benefit Morale, May 2009
- 2642 Balázs Égert, Infrastructure Investment in Network Industries: The Role of Incentive Regulation and Regulatory Independence, May 2009
- 2643 Christian Gollier, Expected Net Present Value, Expected Net Future Value, and the Ramsey Rule, May 2009
- 2644 Sören Blomquist and Håkan Selin, Hourly Wage Rate and Taxable Labor Income Responsiveness to Changes in Marginal Tax Rates, May 2009
- 2645 Dominique Demougin, Oliver Fabel and Christian Thomann, Implicit vs. Explicit Incentives: Theory and a Case Study, May 2009
- 2646 Francesco C. Billari and Vincenzo Galasso, What Explains Fertility? Evidence from Italian Pension Reforms, May 2009
- 2647 Kjell Arne Brekke, Karen Evelyn Hauge, Jo Thori Lind and Karine Nyborg, Playing with the Good Guys A Public Good Game with Endogenous Group Formation, May 2009
- 2648 Guglielmo Maria Caporale and Luis A. Gil-Alana, Multi-Factor Gegenbauer Processes and European Inflation Rates, May 2009
- 2649 Henning Bohn, A Static Model for Voting on Social Security, May 2009
- 2650 Markus Haavio and Kaisa Kotakorpi, The Political Economy of Sin Taxes, May 2009
- 2651 Augusto de la Torre, María Soledad Martínez Pería and Sergio L. Schmukler, Drivers and Obstacles to Banking SMEs: The Role of Competition and the Institutional Framework, May 2009