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AND SAVING BANKS

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Liberalization, Corporate Governance, and Savings Banks^{*}

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Abstract

We study the effects of the interplay between banking deregulation and corporate governance on the lending behavior of savings banks in Spain. The removal of branching barriers that constrained these banks has led to a nationwide expansion, increasing the number of their branches and their commercial lending volume dramatically. Analyzing a unique data set combining information on the geographic distribution of bank branches and matched lender-borrower financial statements during 1996-2004, we provide evidence that suggests that the governance of those banks affects the way in which they expand their lending activities. In particular, political influence affects where they expand and their ex ante risk taking behavior. Because most countries have a portion of their banking system that is not privately owned, the behavior of these Spanish savings banks may have broader implications about the impact of global banking deregulation and industry consolidation and their interaction with bank governance.

Keywords: Deregulation; Bank lending; Bank branching; Geographic expansion; Distance

JEL classification: G10; G21; G30; H11; L30

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1. Introduction

This paper analyzes the effects of the interplay between deregulation and corporate governance on bank behavior. We are particularly interested in the difference between the sector of the commercial banking industry that is privately owned and the sector of the banking industry that is not. These two sectors are associated with significantly different governance and ownership structures. Given these different forms of organizational structure, it is reasonable to hypothesize that deviations from value maximization may be more likely in the non-private sector than the private sector. We examine this hypothesis in the context of the Spanish banking industry by analyzing differences between these two sectors in terms of their lending activities. Because, like Spain, most countries have significant non-private components of their banking system, our findings may have implications beyond the Iberian Peninsula.

The banking sector is one of the most heavily regulated industries around the world. However, during the last 20 years there has been a global trend towards liberalization of this industry. These deregulations typically address issues of bank ownership, restrictions on investments and financial services, subsidized lending and geographic branching restrictions. In this paper we consider an interesting natural experiment, relating liberalization and corporate governance: the geographic deregulation of savings banks in Spain. The ultimate removal of branching barriers in 1989 led to a dramatic nationwide expansion of the savings bank sector in terms of branches and total assets. This expansion was specifically associated with aggressive growth in lending and a reallocation within the loan portfolio away from (ex ante) safer residential mortgage lending towards riskier commercial lending.[†] We explore the role that governance and political influence may have played in this risk increasing behavior.

In this study we focus on a particular type of non-private bank, the Spanish savings banks. These banks have a special governance and ownership structure since they are either owned by

[†] The number of Spanish savings banks' branches in new provinces has *increased* by more than 300% during 1992-2004 while the number of commercial bank branches has *decreased* by 20%. The difference in loan growth during the same period is also substantial (savings banks: 500% vs. commercial banks: 300%).

state governments or at least controlled by politicians and public entities (e.g., Sapienza, 2004; Crespi, García-Ceston, and Salas, 2004; La Porta, Lopez-de-Silanes, and Shleifer, 2002). Hence, savings banks are similar in many ways to government-owned banks in other countries. Interestingly, savings banks have existed in many countries (e.g. France, Germany, Italy, Russia, and Spain) since the 19th century. In Spain as well as other countries, savings banks were typically established by local or regional governments, churches, welfare societies and trade unions to promote savings by middle- and working-class people and to provide lending to small businesses and individuals (including the poor) in the same city or region. Consequently, these banks have built up extensive local branch networks to serve their customers, initially focusing on geographically restricted markets.

There are parallels in other countries to the savings bank growth phenomenon in Spain. Perhaps the most interesting of these is the behavior of the Savings and Loan (S&L) industry in the United States in the 1980s. Although the S&Ls were not government owned, many of them were mutual organizations with governance mechanisms that were quite different from private commercial banks. A relaxation of investment restrictions for S&Ls in the early 1980s, led to an increase in risk taking and expense-preference behavior. This behavior appeared to contribute significantly to the taxpayer losses (\$150 billion) associated with the S&L crisis (e.g., Akella and Greenbaum, 1988; Mester, 1989; Mester, 1991; White, 1991; Knopf and Teall, 1996). In addition to the removal of investment restrictions, intrastate and interstate branching barriers that affected S&L's (as well as banks) began falling in the 1980s resulting in a substantial growth in the number of bank branches (e.g., Clarke, 2004; Spieker, 2004; and Johnson and Rice, 2007). Concern about the behavior of the “non-private” sector of the banking industry (i.e., government-owned banks, mutual banks and credit cooperatives) can be found in other countries: the abolishment of state guarantees for savings banks in Germany between 2001-2005 due to concern under European Union law on prohibited subsidies; the failure of the credit cooperatives in Japan

in the very early stages of the 1990s banking crisis (Nakaso, 2001); and, more generally, the studies that have found underperformance of - and a negative real impact from - government-owned banks (e.g., La Porta, Lopez-de-Silanes, and Shleifer, 2002; Barth, Caprio, and Levine, 2004; Beck, Demirgüç-Kunt, and Maksimovic, 2004; Berger, Hasan, and Klapper, 2004; Clarke and Cull, 2002; Delfino, 2003; Berger et al., 2005).

While in many ways the Spanish savings bank phenomenon is most similar to the S&L situation in the U.S., they differ in one important respect – political influence. Political influence did not play a central role in the S&L crisis because the S&Ls were not government owned.[‡] However, as we noted the Spanish savings banks are governed by local politicians or local and regional politicians. Local politicians typically focus on the economic development of their areas whereas regional governments may have broader objectives, going beyond the boundaries of their regions. Therefore, it is not unlikely that the way savings banks expand is affected by the relative importance of regional politicians in their governance structure.

The main objective of this paper is to test the hypothesis that corporate governance characteristics influence the lending behavior of banks after a deregulation. We make two types of distinctions regarding corporate governance: the distinction between private banks and non-private banks (commercial banks vs. savings banks), and the distinction among savings banks according to influence of politicians. More specifically, we address two empirical issues. First, we analyze the relationship between corporate governance characteristics of savings banks and their geographic expansion (physical, political, economic, and sectoral distance measures). In particular, we study the effect of political influence based on a measure of the political affinity of the target area of expansion – our “political distance”. Second, we investigate the relationship

[‡] This is not to say that political influence played no role in the S&L crisis. Political influence may have affected legislation that protracted the crisis and propped up the industry after the change monetary policy regimes in the late 1970s. It also appeared to have played a role in specific failure resolution cases such as the case of Lincoln Savings and Loan and the politicians who intervened in the resolution of this institution – the so-called “Keating five”.

between corporate governance characteristics of savings banks and their ex ante risk taking (loan portfolio and single borrower risk).

We address these questions by analyzing a unique dataset with more than 100,000 firm-year observations that combines information on the geographic distribution of bank branches and matched lender-borrower financial statements for the period 1996-2004. By way of preview, we find: First, bank size and the GDP of a province is positively related to the probability of geographic expansion. Second, in addition to physical distance and industry composition, the political distance between new and traditional lending markets of savings banks significantly explains where they expand. Third, savings banks lend to firms in new markets that are ex ante more risky than the borrowers in their home markets and those of privately owned commercial banks. We also find that these borrowers in new markets are bigger and exhibit more bank relationships than the savings banks' traditional borrowers. Overall, our empirical results suggest that in terms of risk taking deregulation has a differential impact on banks according to their governance structure.

The remainder of this paper is organized as follows. Section 2 reviews two strands of literature related to our study: the literature on the link between banking deregulation and economic activity, and the literature on government ownership of banks. Section 3 provides the institutional background on the banking deregulation and savings banks in Spain. Section 4 describes the data. Section 5 reports main results on the relation between corporate governance characteristics, geographic expansion and risk taking. Section 6 summarizes findings from several tests of robustness. Section 7 concludes.

2. The Literatures on Banking Deregulation and Government Ownership

Our study of savings banks in Spain involves the interaction between deregulation and the behavior of government owned/managed banks. As a result, there are two strands of literature

that are most closely related to our analysis: studies that link banking deregulation to economic activity, and studies that link government-owned banks and economic activity.

2.1. The Literature on Banking Deregulation, Bank Behavior and Economic Activity

A number of studies have focused on the impact of banking deregulation on economic activity and growth through improvements in bank efficiency. Bertrand, Schoar, and Thesmar (2007) examined the consequences of banking reforms in France after 1985. This extensive liberalization of the French banking industry included privatization, elimination of subsidized lending, replacing loan growth limits by deposit-based reserve requirements, unifying a multitude of banking regulations and fostering competition by facilitating firms' access to bond and equity markets. Their analysis indicated that after deregulation banks were less inclined to help poorly performing borrowers and that firms became more likely to undertake restructuring efforts. In addition, they found that banking industry concentration decreased. Their findings indicate an overall improvement in the efficiency of the French Banking sector à la Schumpeter's process of "creative destruction".

Jayaratne and Strahan (1996) provide evidence that the relaxation of intrastate bank branch restrictions in the United States led to an increase of per capita growth in income and output. This finding was explained by improvements in the quality of bank lending (screening, monitoring) because there was no consistent increase in the volume of bank lending. Stiroh and Strahan (2003) analyze the effects from bank branching and M&A deregulation on competition in the United States during the period 1976-1994. Their main result was that there is an increase in competition and a considerable reallocation of market share towards better performing banks after the liberalization. Clarke (2004) investigated whether there is a relation between branching deregulation and economic growth in the United States given that bank branches mushroomed

from roughly 13,000 in 1963 to more than 60,000 in 1997. She finds evidence of a significant and positive link between the geographic expansion of U.S. banks induced by deregulation and short-run economic growth. Johnson and Rice (2007) provide empirical evidence supporting the view that the removal of remaining interstate branching restrictions in the United States would result in an increase of out-of-state branch growth, lowering the entry costs of out-of-state banks.

Acharya, Imbs, and Sturgess (2007) apply portfolio theory to the real economy and show that the intra- and interstate branching deregulation in the United States has had positive effects on the efficiency and specialization/diversification of investments.

All of the above studies show a positive link between deregulation and economic activity. Huang (2007), however, found more nuanced results. He deployed a new methodology for analyzing the effects on competition and economic growth by comparing a sample of 285 pairs of contiguous counties in the United States along borders of states with and without an early branching deregulation. His empirical results are mixed: some states exhibit positive, some insignificant, and some negative consequences of branching deregulations.

Another potential problem associated with deregulation and geographic expansion relates to distance. The global trend toward consolidation of the banking industry has led to a smaller number of larger banks located further away from their borrowers (Petersen and Rajan, 2002; Degryse and Ongena, 2005). On the one hand, this may have a detrimental effect on relationship lending because the organizational diseconomies associated with larger banks may make it difficult to process and transmit soft information internally (Stein, 2002). Empirical evidence, indeed, suggests that larger banks are less likely to engage in relationship lending (e.g., Berger et al., 2005). On the other hand, if technological innovation has led to the creation and improvement of transactions-based lending technologies that rely on hard information instead of soft information, then consolidation may not have a negative effect on credit availability. So, ultimately this is an empirical issue. Alessandrini, Presbitero, and Zazzaro (2007) frame the

problem of transmitting soft information within banking organizations in terms of “functional distance”, the distance between loan origination (i.e., the loan officer) and a bank’s headquarters (where loan decisions are ultimately made). These authors find evidence in Italy that credit availability is negatively related to functional distance. Also using Italian data, Bofondi and Gobbi (2006) find that when Italian banks expand their lending into new provinces they face higher ex post default rates than incumbent banks, although this can be mitigated if the new entrant open branches in the new provinces it penetrates. DeYoung, Glennon, and Nigro (2008), analyzing small business lending in the United States during 1984-2001, show that relationship lenders face problems (in discriminating between low and high risk borrowers) if they expand to new markets *without* adapting transactions-based lending technologies (i.e., small business credit scoring). We will also employ measures of distance in our analysis.

With respect to Spain, Salas and Saurina (2003) analyze the relationship between different types of banking deregulations and riskiness of publicly-listed commercial banks in the period 1968-1998. Their analysis showed an increase in competition, a decline in profits, and an increase in bank risk (higher loan loss provisions, lower solvency ratios). Carbó Valverde, Humphrey, and Rodríguez Fernández (2003) investigated the effects of branching deregulation in Spain on banks’ costs, prices, profits and competition and concluded that this deregulation was superior to bank mergers because it fostered competition. Benito (2008) investigated whether bank growth in Spain was related to bank size. This study indicates that the size-growth relation is not stable over time. Small banks grew faster during the period of high regulation but in recent years large banks (many of them savings banks) have grown at the same rate or even faster than smaller ones, leading to a more skewed and concentrated bank size distribution in Spain.

2.2. The Literature on Government Ownership of Banks and Economic Activity

There is a considerable literature on the behavior of state-owned banks. A major focus of this literature is how the governance of these banks affects their behavior and how this, in turn, has real effects on the local economy. In particular, there is evidence that supports the “political” view that there is a strong incentive for politicians to control government-owned banks for political rather than social objectives given the relatively weak governance of these institutions. La Porta, Lopez-de-Silanes, and Shleifer (2002) examine 92 countries and find that government ownership of banks is quite large and exists all around the world. Such an ownership is higher in countries with relatively low per capita income, under-developed financial systems, interventionist and inefficient governments, and poor protection of property rights. Interestingly, countries with a high government ownership of banks exhibit slower financial development and lower growth of income and productivity.

A common finding in the literature on the behavior of state-owned banks is that they tend to under-perform private commercial banks and they tend to impose negative real effects on the economy (e.g., La Porta, Lopez-de-Silanes, and Shleifer, 2002; Barth, Caprio, and Levine, 2004; Beck, Demirgüç-Kunt, and Maksimovic, 2004; Berger, Hasan, and Klapper, 2004; Clarke and Cull, 2002; Delfino, 2003; Berger et al. 2005; Ianotta, Nocera, and Sironi, 2007). Political influence appears to play a role in their behavior. Sapienza (2004) analyzes the lending behavior of state-owned banks in Italy during the period 1991-1995 and finds that these banks charge lower interest rates (in comparison to privately owned banks) on credit lines to otherwise similar firms. This interest rate discount becomes statistically significantly larger the higher the power of the political party (to which the bank’s CEO is affiliated) in the province in which a firm is borrowing. In addition, state-owned banks favor firms that are relatively large and located in economically weak areas. Kleff and Weber (2005) examine the payout policy of state-owned savings banks in Germany during 1995-2001. After controlling for bank-specific profitability,

liquidity and solvency, they find that the worse the financial situation of the related local government the more likely is a savings bank to distribute profits and to increase payouts to the local government.

The behavior of S&Ls in the U.S. may also be illuminating even though these institutions were not government owned. (Many of them, however, were cooperatives with an arguably inferior form of governance than private commercial banks.) The evidence suggests that expense preference behavior influenced the performance of the S&L industry. For example, Akella and Greenbaum (1988) found evidence of expense preference behavior in mutual S&Ls while Mester (1989, 1991) evidence of expense-preference behavior and lower efficiency in both mutual and stock S&Ls. Knopf and Teall (1996) found that insider controlled thrifts were more likely to engage in risk taking than diversely held institutions. In addition, they found that risk taking and the level of institutional shareholdings were negatively related.

There are a number of studies that have examined corporate governance in the banking industry in Spain. Crespi, García-Cestona, and Salas (2004) analyzed corporate governance in Spanish banks during the period 1986-2000. They examined whether a poor economic performance triggers governance interventions (e.g., director turnover, chairman or CEO removal or mergers and takeovers) and if this intervention depends on the ownership structure of a bank. They found a negative relation between performance and governance intervention for banks. However, this result does not hold for all forms of ownership and types of interventions. Most important for our study, they found that savings banks exhibit weaker internal mechanisms of control than other banks and that the only significant relation between performance and governance intervention at savings banks is found in case of mergers. However, the scope of mergers as a governance intervention mechanism is restricted because in the Spanish savings

bank sector mergers can only be carried out between banks from the same region (but not out-of-region), and only with the approval of the regional government.[§]

Some of these studies have specifically focused on lending and how it might differ between commercial banks and savings banks. Salas and Saurina (2002) examine the determinants of non-performing loans at commercial and savings banks in Spain during 1985-1997. They find that the impact of bank-specific factors (e.g., growth policies, managerial incentives, and managerial inefficiency) on the credit risk is higher in case of savings banks than in case of commercial banks. García-Marco and Robles-Fernández (2007) analyze the overall riskiness of Spanish commercial and savings banks. They found that commercial banks are more risk-inclined than savings banks but that the degree of shareholder concentration in commercial banks has a negative impact on the level of risk-taking. Jiménez and Saurina (2004) analyze data on more than 3 million loans from the Bank of Spain's Credit Register and find that secured loans have a higher probability of default, loans granted by savings banks are more risky, and that bank risk-taking is positively associated with the closeness of a bank-borrower relationship. In addition, although savings banks rely more frequently on collateral to compensate for higher default risk (the market share in commercial lending has risen from 17% in 1986 to 33% in 2000), this lending strategy may only be partially effective because more than 85% of all loans are *unsecured* in each of the years 1987-2000. Delgado, Salas, and Saurina (2007) test the joint relation between bank size/bank ownership and borrower size in Spain. Their analysis shows that savings banks (as opposed to commercial banks), provide relationship lending to close and small businesses, consistent with the intent of providing an assurance of availability of credit to small and mid-sized firms in the Spanish economy. Small and medium-size savings banks tend to lend to riskier firms (relative to commercial banks) because of political pressure but they seem to keep the overall risk under control.

[§] Note that there are only four mergers between Spanish savings banks during our sample period 1996-2004.

3. The Institutional Background: Banking Deregulation and Savings Banks in Spain

The Spanish banking system is an industry with two main institutions, commercial banks and savings banks that compete with each other for loans and deposits. According to their financial statements, the market share of savings banks in 2004 was slightly higher than that of commercial banks: 48% vs. 47% in the loan market and 52% vs 42% in the deposit market. ^{***} After a long deregulatory process, both institutions face similar regulations, in terms of credit risk, accounting standards and taxation, although they still differ in their ownership, governance structure and organizational form.

As opposed to commercial banks, savings banks in Spain are private foundations with no formal owners, which must either retain their profits or invest part of them in social or community programs. These so-called “social dividends” reflect the non-for-profit nature of savings banks, which by law must pursue a wide set of goals that may often conflict with value maximization. As pointed out by García-Cestona and Surroca (2005), these objectives are i) providing universal access to financial services, ii) profit maximization, iii) competition enhancement and avoidance of monopoly abuse, iv) contribution to regional development, and v) wealth redistribution.

According to these objectives, national legislation on savings banks passed in 1985 established a particular corporate governance structure, based on three main government bodies: the General Assembly, the Board of Directors and the Steering Committee. The General Assembly is the highest governing and decision making body, which is aimed at defining the strategy of the bank and has the competence to appoint members to both the Board of Directors and the Steering Committee. The board of directors is in charge of the management and

^{**} In addition to savings banks and commercial banks, credit cooperatives compete in the loan and credit markets as well, with a share of 5% and 6% respectively. These institutions may be considered as mutual thrifts, whose original aim was to lend to agricultural firms and to provide banking services in rural areas (Delgado, Salas, and Saurina, 2007). In contrast to savings banks, credit cooperatives remain rather small and operate typically in a single province.

administration of savings banks, whereas the steering committee is set up as a body to oversee the board of directors.

Given the peculiar form of ownership of the savings banks, which in fact is a lack of ownership, the law identified all the parties interested in the management of these banks and gave them a voice in the main three government bodies. In particular, the savings banks stakeholders were classified into four categories; namely depositors, local governments, founders and employees. To achieve a balanced fulfillment of the aforementioned objectives, the law allocated to these groups 44%, 40%, 11% and 5% of the voting rights in the General Assembly, respectively. Moreover, the structure of both the Board of Directors and the Steering Committee was to reflect the proportional representation of the various interest groups in the General Assembly.

Regardless of their objectives, not all the groups of interest have the same ability to influence the management of the savings banks. In spite of the amount of voting rights allocated to them, depositors are usually less involved in the bank's activities because of two main reasons: i) their objectives are already protected by deposit insurance and ii) the mechanism used to elect their representatives -a lottery- makes it difficult for them to act as a coordinated group (e.g., García-Cestona and Surroca, 2005). In such a context, managers usually exert an influence on this group, which allows them to control a substantial amount of the voting rights.^{††}

The savings banks' stakeholders can be classified into two broad categories: insiders and outsiders. The former category is made up of employees and managers, whereas the latter includes local governments and founders. While the first group focuses on growth and value maximization in order to preserve their jobs, the second one is concerned by economic development in local areas, competition among banks and universal access to financial services.

^{††} This fact, along with the lack of a market for corporate control, weakens the savings banks' mechanisms of governance and control (e.g., Crespi, García-Cestona, and Salas, 2004).

Hence, by allocating voting rights to the different stakeholders, the regulator is revealing its preferences on the bank's objective.

Interestingly, the Spanish Constitutional Court declared unconstitutional the distribution of voting rights that was established in the national law passed in 1985. This gave rise to specific regional laws that introduced great heterogeneity across regions (e.g., Carbó Valverde, Palomares-Bautista, and Ramírez-González, 2004). Some of these laws permitted the allocation of voting rights to non-for-profit organizations, such as universities or chambers of commerce, and in many cases they allocated a substantial percentage of voting rights to the regional governments. Indeed, whether the regional governments have or not stake in the government bodies of the bank is one of the most striking differences among the savings banks in Spain: In roughly 50% of all Spanish savings banks, the regional governments have a stake in the General Assembly. Regional governments face different incentives than local governments and, therefore, it is reasonable to hypothesize that the allocation of voting rights to these governments may affect the priorities that savings banks assign to their different objectives. In other words, these differences in the governance may have affected the way these banks reacted after the removal of branching barriers that took place in 1988.

In 1975, national legislation had extended the geographic limits of these banks to i) the entire province in which the headquarters of the savings banks were located and ii) the so-called complementary operational scope, including certain areas within other provinces where the savings banks were already established. Four years later, geographic barriers were further extended to the regional level and, finally, geographic barriers were completely removed in 1988. The definition of a savings bank "home market" must be made in the context of this sequential removal of geographic barriers. Following Fuentelsaz and Gómez (1998) and Illueca, Pastor, and Tortosa-Ausina (2005), we define the savings bank i's home market as those provinces that met at least one of the two following criteria in 1992 (first year with available information on

branches): i) the savings bank i concentrates more than 50% of its branches in the province or, 2) the savings bank i has more than 5% of the total number of branches located in the province. According to this definition, the number of provinces that belong to a savings bank home market varies from one to seven. Typically, the home market of a savings bank includes only a single province, although roughly one third of Spanish savings banks have a multi-province home market, which in certain cases may go beyond the boundaries of the region.

4. The Data

To study effects of the interaction of liberalization and corporate governance on bank lending behavior we use three types of data: data on banks, data on firms and data on environmental factors. The bank data includes financial statements, the number and location of branches, corporate governance and ownership variables as well as information on natural markets of savings banks. These data are for all banking institutions operating in Spain from 1992 to 2004. The Spanish Association of Private Banks (AEB) provides the data on commercial banks, whereas the data on savings banks were collected from the Spanish Confederation of Savings Banks (CECA). These detailed branch data allow us to track the geographic expansion of Spanish savings banks. Figure 1 displays the evolution of the number of branches and of the lending volume for savings banks and commercial banks.

(Insert Figure 1 here)

It can be seen that Spanish savings banks have expanded substantially in terms of bank branches and lending volume while commercial banks exhibit a decline in bank branches and smaller growth of lending. Interestingly, the speed of this expansion is considerably higher than after the branching deregulations in the United States or other European countries.

The firm data come from the SABI database (Sistema Anual de Balances Ibéricos) which is based on official commercial registries in Spain. It includes detailed accounting information (balance sheets and income statements), the number of employees, name and type of the auditors, province, and information on the number and identity of bank relationships (Bank of Spain Code) for 26,204 firms during 1996-2004 (117,464 firm-year observations). The information on the banks' identity allows us to match the firm data with the extensive bank data. To our knowledge this is the first large-sample data base implementing such a bank-firm matching.

The source of data consists of a variety of macro variables (e.g., province population, GDP per capita, and industry composition), physical and political distance measures (e.g., distances in kilometres, same-region indicators), and measures of local bank competition (market shares, HHI for loan markets). Table 1 presents summary statistics on our data.

(Insert Table 1 here)

5. Empirical Analysis

In this section, we analyze the effect of the savings bank governance on three different issues associated with their geographic expansion: i) the degree of expansion, ii) where they expand and iii) the risk taking associated with this expansion.

5.1. *Determinants of the Geographic Expansion of Savings Banks: How Much and Where*

We consider two corporate governance characteristics that might affect the geographic expansion of savings banks. First, we examine whether the *structure of the board of directors* is associated with expansion. As we noted in section 3, there are substantial differences across the Spanish regions in the type of stakeholders that are allowed to participate in the savings banks' decision-making. While local governments are always represented on the board of directors, in

many regions the regional governments are not allowed to appoint any members to the board. Thus, we can hypothesize that savings banks might exhibit a higher degree of geographic expansion when regional governments (as opposed to just local governments) are involved in a savings bank's corporate governance. Note that board members appointed by regional governments are more likely to be connected to the Spanish federal administration, to the leaders of their political party, and more involved in general policy decisions than local politicians. In addition, regional governments are typically more powerful than local politicians and thus more likely to influence the *nationwide* geographic expansion of savings banks (e.g., Sapienza, 2004; Hainz and Hakenes, 2007).

In addition to the structure of the board of directors, we consider *political connections* on the degree of geographic expansion. We hypothesize that savings banks are more likely to expand into regions in which the political affiliation of the government coincides with that of the regional or local governments represented in their board of directors. We argue that political connections could result in a decrease in the costs associated with geographic expansion, so that the adjustment speed to the optimal amount of branches and loans in a province is higher when the target region is politically "close". To measure the political distance between the board of directors and the target regions, we use a dichotomous variable $DIST_POL_{ijt}$ which equals one if the political affiliation of the regional government in province j in year t is different to that of the regional government which has a stake in the board of directors of savings bank i , and zero otherwise. If the regional government does not have any stake in the board of directors, the political distance is measured according to the affiliation of the political party that controls the province that is the savings bank's home market (in the few cases in which the home market consists of more than one province and these provinces are ruled by different parties, the most voted party across the provinces is considered).

To evaluate the effect of governance characteristics on the geographic expansion of savings banks, we use two alternative indicators of the degree of expansion: i) L_{ijt} , defined as the proportion of loans allocated to province j by the savings bank i over the total amount of loans in year t and ii) PL_{ijt} , a dichotomous variable that equals to one if $L_{ijt} > 0$ and zero otherwise. These ratios are computed only for the provinces that do not belong to the natural markets of savings banks. L_{ijt} indicates the overall degree of expansion of the savings bank i in year t and PL_{ijt} is the likelihood that the savings bank i is extending loans in any of the N_i target provinces. The empirical evidence reported in this section is based on 20,688 savings bank-province-year combinations, corresponding to the period 1996-2004.

We first carry out a univariate analysis comparing L and PL with both corporate governance characteristics. The results are reported in Figure 2. The vertical axis represents the geographic expansion of savings banks in which the regional government is involved in the board of directors, whereas the horizontal axis refers to the savings banks in which direct political influence is restricted to local politicians. In each case, the target provinces are split into four categories according to two criteria: i) *political connections* of the board of directors in the target provinces, proxied by variable $DIST_POL$ and ii) *physical distance* between the target provinces and the savings bank's home market. Cells 1 to 4 refer to neighboring provinces whereas cells 5 to 8 refer to distant provinces. Cells 1, 2, 5 and 6 represent the provinces that are politically close, whereas cells 3, 4, 7 and 8 represent the provinces whose regional government has a different political affiliation. Each cell reports the means of L and PR corresponding to the period 1996-2004.

(Insert Figure 2 here)

It turns out that both the *structure of the board of directors* and *political connections* matter.

The average percentage of loans allocated to the provinces that do not belong to the home market of savings banks is around 0.77% if the regional government is involved in the board of directors and just 0.63% if the regional government does not intervene in the firm's management. The difference between these two broad categories is statistically significant at conventional levels, in terms of both the percentage of loans (P) and the likelihood of extending loans (PL) in new provinces. Physical distance appears to be a key determinant of the decision on where to expand, since the average percentage of loans extended in the neighbor provinces (3%) is significantly higher than that of more distant provinces (less than 1%). After controlling for physical distance, our results suggest that political connections affect the amount of loans allocated to new provinces as well as the probability of expansion. Regardless of whether the savings banks are under the control of the regional government, the degree of expansion is higher in the provinces whose regional government has the same political affiliation than the regional government in the home market. Moreover, the effect of political distance is increasing with the physical distance, particularly for the savings banks in which the regional government is involved in the board of directors.

Now we turn to a multivariate analysis which allows us to control for other variables that may affect the geographic expansion of savings banks. Specifically, we extend the univariate analysis by modeling the proportion of loans and the likelihood of allocating loans to a province (Models I and II), the proportion of branches and the likelihood of having at least one branch in a province (Models III and IV) and, finally, the proportion of loans and the likelihood of allocating loans to provinces in which the savings banks do not have any operating branch (Models V and VI). We consider three different groups of independent variables: a) *bank-province variables*, including physical distance, political distance and the dichotomous variable REGION, which equals to one if the province belongs to the same region than the savings bank, b) *province-specific variables*,

including the number of inhabitants, the GDP per capita, the share of commercial banks in the loan market and a dummy variable which equals to one if the target region is MADRID, and c) *bank-specific variables*, including bank size, equity-to-assets ratio and the dichotomous variable REGION_GOV, which equals to one if the regional government has a stake in the board of directors and zero otherwise.

Regression results are reported in Table 2. Regarding our political distance measure, the estimate coefficients are negative and statistically significant in all regressions, with the exception of model VI. Political connections reduce the costs associated with geographic expansion -- savings banks exhibit a higher likelihood of opening new branches and extending new loans in provinces that are politically close. As to the structure of the board of directors, our empirical evidence is mixed. The results for Models I and II suggest that both the amount and the likelihood of allocating loans out of the home markets increases when regional governments are represented in the board of directors of savings banks. However, the effect associated with the structure of the board of directors turns out to be the opposite if geographic expansion is measured in terms of branches instead of loans. In Models III and IV, the coefficient of REGION_GOV is negative and significant, which indicates that politicians at the regional level tend to encourage the expansion of credit out of the home market rather than deposit taking. Indeed, the results for models V and VI show that the likelihood of extending loans in provinces in which the savings banks do not have any operating branches increases dramatically when the regional government has a stake in the board of directors.

(Insert Table 2 here)

Table 2 also provides interesting results concerning the control variables. As expected, the extent to which savings expand to a certain province is increasing with the size of the savings

bank, the number of inhabitants of the province and the GDP per capita. Interestingly, savings banks tend to expand into provinces where commercial banks have a higher share in the loan market. Given that these banks were not constrained regarding the allocation of loans across regions, their market share may be perceived by the savings banks as a good proxy for profit opportunities in the province. Moreover, we find a positive and significant coefficient for the variable REGION and a negative and significant one for our physical distance measure, DIST_PHY, suggesting that savings banks are more likely to expand within their regions and, particularly, to neighboring provinces. Finally, the dichotomous variable indicating an expansion to MADRID is positive and significant, even after controlling for the size of the province and its GDP per capita. A non reported regression shows that the coefficient for this variable is significantly higher for the banks in which the regional government has a stake in the board of directors. Summarizing, our empirical evidence suggests that the corporate governance characteristics of savings banks have had a significant effect on their expansive behavior after the removal of geographic barriers.

5.2. The Lending Behavior of Savings Banks at the Portfolio Level

An alternative explanation for the geographic expansion may be that savings banks were forced to hold inefficient, non-diversified loan portfolios during the era of branching regulation. Once these restrictions have been removed, the banks have an incentive to expand to new regions to better diversify their loan portfolios. To test this explanation empirically, we first compute the proportion of loans that savings banks allocate to each industry out of their home markets relative to the volume of all loans granted outside their home markets (PL_IND). Specifically, for each savings bank-industry-year combination during the period 1996-2004, we compute the variable $PL_IND_{ijt} = LOAN_{ijt} / \sum LOAN_{ijt}$, where $LOAN_{ijt}$ refers to the loans granted by the savings bank i to industry j in year t out of the home market. Then, we regress this variable on the

industry structure of commercial lending portfolio in the markets in which the savings banks are expanding (TARGET), the industry structure of the loans that all banks are extending in savings banks' home markets (HOME), and the difference between the industry structure of loans at the national level and the industry structure of loans allocated by all banks within the provinces included in the savings bank's home market (DIF). If savings banks are expanding their lending activities to better diversify their portfolio, the coefficient associated with variable DIF is expected to be positive and significant. On the other hand, if they specialize in the industries they have been lending to at home, then the coefficient of the variable HOME will be positive and significant as well. Finally, if they just adapt to the industry structure of the new markets, the coefficient of the variable TARGET will be significantly positive. Table 3 reports results of different regressions in which the explanatory variables are first considered as single regressors (Models I-III) and then they are combined in a multivariate regression model (Model IV).

(Insert Table 3 here)

Interestingly, results from the uni- and multivariate regressions allow us to rule out the diversification hypothesis. The coefficient of variable DIF is found to be negative, suggesting that after the removal of geographic barriers the industry structure of the savings banks' lending portfolio did not catch up with that of a fully diversified portfolio. The coefficients associated with TARGET and HOME are both positive and highly significant, although in the multivariate regression the coefficient of variable TARGET is three times as big as that of the variable HOME. In sum, the empirical evidence provided in Table 3 supports the view that savings banks are *adapting* to the industry structure of the new markets.

To illustrate the main results of Table 3, we calculate for every year a metric capturing the distance between each savings bank's commercial lending portfolio and the industry composition

of the corresponding portfolio of the biggest Spanish commercial bank in the sample (Banco Bilbao Vizcaya Argentaria SA).^{‡‡} The latter can be seen as a reasonable benchmark for the maximum attainable degree of diversification in a bank loan portfolio. If diversification is a major determinant of the geographic expansion, we would expect a gradual *decrease* of this distance measure over time.

(Insert Figure 3 here)

Consistent with Table 3, Figure 3 clearly indicates that there is no increase in diversification in the savings bank sector: the distance measure first slightly increases and then declines again during the two last years in the sample. We conclude that either savings banks do not follow an industry diversification strategy or they are not successful in implementing this strategy. Note that this finding is not surprising because the industry structure of contiguous provinces in Spain does not differ much. Moreover, this finding is consistent with our previous result that the lending of savings banks adapts to the local industry structure in the new provinces and does not significantly relate to the industry structure of its loan portfolio in the home market. Instead, savings banks seem to follow a growth strategy in commercial lending to complement its strong basis in retail lending, which can be interpreted as a cross-product diversification strategy.

5.3. *The Lending Behavior of Savings Banks at the Borrower Level*

Next we examine in detail the characteristics of firms borrowing from savings banks from other provinces. This analysis may shed insight on lending practices, and in particular the risk taking behavior, of savings banks expanding into new markets and its relation with governance characteristics.

^{‡‡} The bank-specific distance measure is the sum of the squared difference between savings bank's j weight in lending to industry i and the corresponding value for the benchmark portfolio in a year t (e.g., Kamp, Pfingsten, and Porath, 2005; Acharya, Hasan, and Saunders, 2006).

We start with a univariate analysis comparing financial statement information and further variables of firms that never borrow from savings banks from other provinces (but any other type of bank, i.e. commercial banks, cooperative banks, and home market savings banks) with those that start a relationship with savings banks from other provinces. For the latter type of firms we calculate the financial ratios for different points in time, e.g. before and after the start date of the new relationship and the average over all years these firms are in the sample. This decomposition allows us to study the *ex ante*, the *ex post* and the average characteristics of these firms. For example, comparing Altman's (1968)-Z-Score of firms that never start a relationship with savings banks from other provinces with the Z-Score of firms that start such a relationship for the period *before* the starting point sheds light on the *ex ante* default risk (e.g., Sufi 2006).^{§§} Moreover, to test our hypothesis we differentiate the *ex ante* characteristics of firms that start a relationship with savings banks from other provinces by corporate governance features of their future lenders (existence of a stake of the regional government in the board of directors, political party affiliation of the government of the borrower region and the savings banks' home region^{***}). Table 4 reports the results for the full sample (Panel A) and for a subsample of firms exclusively borrowing from savings banks (Panel B). The displayed numbers are medians (except BIGAUDIT; for this variable we report the mean).

(Insert Table 4 here)

This univariate analysis provides a variety of interesting results. Most important, it clearly turns out from Panel A that firms which start a relationship with savings banks from other

^{§§} Note that our way of measuring *ex ante default risk* is consistent with banks' actual decision making in the loan approval process: The Z-Score itself represents an *ex ante* default risk proxy and it is calculated with data from the period *before* the firms start a relationship with a savings bank from another province.

^{***} If the regional government has no stake in a savings bank we compare the political party affiliation of the government of the borrower region and the province in which the banks's head office is located. Essentially, we find that this political link does not play an important role.

provinces exhibit a significantly higher ex ante default risk. Stated differently, the geographic expansion of savings banks is associated with an increase in risk taking. All financial ratios are significantly worse for these firms than for the control group. For example, the Z-Score (EQTA) is 1.97 (35.84%) for the control group (in the column “never”), and 1.69 (30.27%) for firms starting a relationship with savings banks from other provinces (in the column “ex ante”). It can also be seen that these firms are ex ante bigger, have more bank relationships, and are less likely to work with a big audit company than the control group. Moreover, the “ex post” column indicates a further deterioration in the financial ratios and an increase in default risk. The latter finding is unsurprising since the firms ex post increase total assets substantially by increasing total bank debt (not reported in Table 4). This leads to a deterioration of ratios like EQTA and ROA since the denominator has increased. Therefore, we focus on the ex ante financial ratios and risk measures. Furthermore, we observe an increase of the number of bank relationships, indicating that *adding* a new relationship is more likely than *replacing* existing ones. This result is consistent with the view that these firms needed additional bank loans but have not received the funds from their existing banks. Consequently, they have added a new relationship with a bank that is willing to provide the additional loans. In other words, credit availability has increased for these firms.

To investigate whether corporate governance characteristics of savings banks are associated with ex ante borrower risk in the new markets, we calculate the same firm variables conditional on governance features of their future lenders. On the one hand, it turns out that the ex ante financial ratios of firms that start a relationship with a savings bank from another province in which the regional government has a stake in the board of directors are even worse than those of firms starting a relationship with savings banks in which the regional government has not a stake. For example, the Z-Score is 1.78 for firms starting a relationship with savings banks in which the regional government has no stake, but 1.64 for firms that start borrowing from savings banks that

are influenced by the regional government. Note that this finding is consistent with our results reported in Table 2. A plausible explanation is that politicians from the regional government (given that it has a stake in the board of directors) influence a savings bank's decision where to expand. The observed increase in risk taking may *result* from this first-stage decision, in which ex ante default risk is underweighted in the loan underwriting process. Moreover, this finding is in line with research on bank entry into new credit markets (e.g., Bofondi and Gobbi, 2006). On the other hand, we find that the political party affiliation of the government in the borrower region and the home region of the bank has *no additional* impact on the decision making on individual loans. However, as found earlier it is important for the decision where to expand.

We now repeat the same analysis for a restricted sample including firms that exclusively have relationships with savings banks. This allows us to compare the lending behavior of savings banks in their home market to that of other banks. More important, we can also distinguish between the lending and risk taking behavior of savings banks in their home market and the new markets. Comparing the “never”-column in Panel A and Panel B of Table 4 reveals that firms borrowing exclusively from savings banks tend to be riskier than firms borrowing from other banks or a mix of different banks. Note that this finding is consistent with the result of Jiménez and Saurina (2004), analyzing loan data from the Bank of Spain credit register. One explanation for this finding is that savings banks have traditionally been strong in deposit taking and retail lending (especially mortgage lending) but have little experience and expertise in commercially lending which has been considerably increased during the period of geographic expansion (e.g., García-Marco and Robles-Fernández, 2007). Most important in our context, we find that all results on borrower default risk reported in Panel A are confirmed in Panel B. Firms starting a relationship with savings banks from other provinces exhibit a significantly higher ex ante default risk than those firms borrowing from savings banks in their home market. The effect becomes stronger if the savings bank is influenced by the regional government. In this case, borrowers

exhibit a relatively low median Z-Score of 1.48. The analysis shows that the risk taking behavior of savings banks significantly differs in home and new markets which cannot be explained by a general lack of expertise in commercial lending. However, we find evidence that suggests that governance characteristics affect the risk taking. Note that since we compare commercial lending in the home market vs. commercial lending in new markets our analysis is free of distortions that might be present in a commercial vs. retail lending comparison.

In a next step, we turn to a multivariate analysis of the hypotheses that governance characteristics of savings banks influence the risk taking during the period of geographic expansion. More specifically, we estimate five multivariate regression models, denominated M1, M2a, ..., M3b in the remainder. Model M1 is a probit model to analyze which firm characteristics influence the probability of having a relationship with a savings bank from another province ($NEW=1$, 0 otherwise). Model M2a is a multinomial model to examine factors that influence the probability of having a relationship with a savings bank from another province in which the regional government has no stake ($NEW_RG=0$) or has a stake ($NEW_RG=1$) relative to the reference category which includes firms that “never” work with savings banks from other provinces ($NEW_RG=-1$). Model M3a is also a multinomial model to analyze firm variables that influence the probability of a relationship with a savings bank from another province in which the regional government has no stake ($NEW_RG_P=-1$), with a savings bank from another province in which the regional government has a stake and the political party affiliation of the government in the borrower and bank region is different ($NEW_RG_P=0$), and with a savings bank from another province in which the regional government has a stake and the political party affiliation of the government in the borrower and bank region is identical ($NEW_RG_P=1$) relative to the reference category which includes firms that “never” work with savings banks from other provinces ($NEW_RG_P=-2$). Moreover, Models 2b and 3b are probit models on subsamples including only firms for which NEW_RG and NEW_RG_P equal to zero or one respectively.

These models indicate whether the differential effects at the second (stake of the regional government?) and third stage (government in borrower and bank region comes from the same political party?) are significant. Consistent with the methodology applied in Table 4 we compare data from firms that *never* have a relationship with savings banks from other provinces with data from firms *before* they start such a relationship (ex ante variables). Table 5 summarizes the results.

(Insert Table 5 here)

The multivariate analysis confirms the findings from the univariate tests. In Model 1 we obtain a significantly negative coefficient for the variables ZSCORE and BIGAUDIT as well as a significantly positive coefficient for firm size (TA) and the number of bank relationships (NREL). Model 2a also reveals that a lower Z-Score increases the probability of having a relationship with savings banks from other provinces. Interestingly, the magnitude of the coefficient of ZSCORE almost doubles for the probability of having a relationship with a savings bank in which the regional government has a stake (NEW_RG=1). Model 2b confirms that the additional impact due to political influence of the regional government is highly significant. Model 3a confirms this finding but indicates that there is no additional impact of the political party affiliation of the regional governments. Model 3b confirms that there is no significant political party effect on risk taking in new markets. In summary, the analysis of firm characteristics provides clear and consistent evidence supporting the hypothesis that the geographic expansion of savings banks is associated with lending to borrowers with a higher ex ante observable default risk and the effect becomes more pronounced if the savings bank is influenced by politicians.

Given these findings one might argue that riskier lending in these new markets could be offset by higher loan rates and/or mitigated by more collateral. With respect to loan pricing there may be two off-setting effects. It is not unlikely that the savings banks entering new markets offer lower loan rates to firms to gain market share (and, as a side effect, attracting firms that have been denied loans by in-market banks). At the same time, one might expect that savings banks would consider the higher ex ante default risk in loan pricing. Accordingly, the ultimate effect on loan rates is ambiguous. To address this issue quantitatively, we examine three firm-year specific proxies of loan rates in more detail (INTCOV as defined above, AVINT calculated as interest paid over total bank debt, and SPREAD defined as AVINT minus the long-term risk-free rate in Spain from the same year⁺⁺⁺). The analysis indicates that firms starting a relationship with savings from other provinces experience a significant *decrease* in AVINT (-70 bps, Wilcoxon rank sum test p-val. <0.001) and SPREAD (-40 bps, p-val. <0.001) and a small insignificant *increase* in INTCOV when comparing data from the years before and after they have started the new relationship. These findings provide strong support for the first effect: savings banks expanding into new provinces seem to offer relatively low loan rates to attract new customers and finally end up with more risky borrowers. Consequently, we conclude that the increase in risk taking is not rewarded by higher interest income.

Furthermore, savings banks may require collateral from the borrowers in the new markets to compensate for the higher ex ante default risk. On the one hand Jiménez and Saurina (2004) and Jiménez, Salas, and Saurina (2006) report that Spanish savings banks are more likely to grant secured loans than commercial banks. On the other hand, on average, 87% of all loans to companies included in the Spanish Credit Register during 1987-2000 are *unsecured* (Jiménez and Saurina, 2004), indicating that collateral does not play a major important role in commercial lending. Given the low importance of collateral in commercial lending in Spain, it is very

⁺⁺⁺ It is important to control for dynamics of the risk-free interest rate (yield of 10-year Spanish government bonds) because it declined considerably during the sample period (from 8.74% in 1996 to 4.10% in 2004). The variable medians assume reasonable values and amount to AVINT=6.83%, INTCOV=5.44, and SPREAD=167.53 bps.

unlikely that savings banks can compensate for the higher ex ante default risk by obtaining (more) collateral from the borrowers in the new markets because firms' new relationships are typically the third or fourth bank relationship. Consequently, as can be seen from Table 5 these bank relationships are *added* to existing ones, making it difficult for the expanding savings banks to get *senior* collateral, *fully secured* loans, and *valuable* (outside) collateral. Instead, we expect that firms typically pledge most or all of their existing collateral to their first or second lender (e.g., a commercial bank or the savings bank from the same province). This is particularly true for mortgages, receivables and inventory. Furthermore, if firms invest the proceeds from the new loans to purchase, for example, machinery and pledge the latter as collateral (making the loan relatively safe for the lender) the question is why have they added a new bank relationship instead of borrowing from their former banks? As argued beforehand, the latter were apparently not willing to lend further money, i.e. firms get a benefit from adding a new bank relationship (e.g., increase in credit availability, lower loan rates, and/or less collateral). Also note that even if loans to some borrowers in the new markets may be secured this does not mean that savings banks can fully compensate for the higher ex ante risk taking because of the recovery risk in case of default. In this context, it is noteworthy that there is evidence that the probability of default and the recovery rate on defaulted banks loans are negatively correlated (e.g., Grunert and Weber, 2007). Finally, we have checked the maturity of the new loans and how the firms use the proceeds from these loans. It turns out that the average absolute increase (in Euros) of short term bank debt is bigger than that of long term bank debt after the firms have started a relationship with a new savings bank.⁺⁺⁺ This suggests that the increase in risk taking cannot be (fully) compensated by collateral because short-term bank debt in Spain is typically not, or only partially, secured. More important, we also find that the firms invest less than 50% of the

⁺⁺⁺ Jiménez and Saurina (2004) report that 61% of all loans granted to firms during 1987-2000 are short-term (the maturity is less than one year). This is consistent with our measure "short term bank debt over total assets" exhibiting a median of 65% for all firm-year observations during 1996-2004.

proceeds in long-term assets like property, plant and equipment (i.e. relatively high-quality collateral) and the remainder to finance current assets (receivables, inventories, i.e. collateral of a lower quality). A further finding is that the ratio of long term assets over total bank debt declines monotonically in the number of bank relationships, i.e. the higher the number of bank relationships the less high-quality collateral is available. In summary, we conclude that it is very unlikely that savings banks can fully compensate for the higher ex ante default risk arising from the geographic expansion by means of collateral.

We now investigate whether the detected higher ex ante default risk can be observed in all firms that increase the number of relationships. In particular, we want to determine whether the elevated borrower risk (and its magnitude) is related to the borrower's choice of a particular bank (or a bank's willingness to grant further loans). For example, if firms that added new relationships with commercial banks were also ex ante riskier than firms that did not increase the number of bank relationships (or as risky as firms that start a relationship with savings banks from other provinces) there would be no special effect arising from the geographic expansion of savings banks. To assess this possibility, we repeat the same analysis as in Table 4 for a subsample of firms that increase the number of bank relationships by adding new relationships with commercial banks and/or cooperative banks versus those firms that add relationships with savings banks from other provinces. Table 6 reports the corresponding results.

(Insert Table 6 here)

Essentially, we obtain two key results. First, financial characteristics of firms that add relationships with commercial banks and cooperative banks are ex ante statistically not different from firms that exhibit a *constant* number of bank relationships during the entire sample period (test results not reported in Table 6). Second and more important, firms that start a relationship

with savings banks from other provinces are significantly riskier than their counterparts borrowing from other banks (see rightmost column in Table 6). Accordingly, the type of the bank with which a borrower starts a new relationship is of importance. This result in turn indicates that corporate governance characteristics matter for the risk taking behavior of savings banks expanding to new provinces.

Finally, one may ask whether the detected significant increase in ex ante risk taking has translated into an ex post deterioration of performance (e.g., increase of loan loss provisions and non-performing loans). Unfortunately, we are unable to provide clear evidence for the impact of the geographic expansion on ex post performance for the following reasons. First, our data on banks' loan loss provisions and non-performing loans are not disaggregated by borrower types (commercial lending, retail lending) and provinces. Given this aggregate bank data we cannot differentiate between the performance that is due to an increase of commercial lending in new provinces and the performance in the home market. Second, our sample period coincides with a macro-economic expansion in Spain (e.g., interest rates have decreased, the GDP has increased considerably), having led to an overall increase in performance of all banks. This, in turns, means that potentially defavorable effects on savings banks are hidden at the moment and either off-set or delayed. Third, given that the geographic expansion of savings banks in Spain is far from being finished and that there is an intertemporal lead-lag relation between loan growth and subsequent loan losses (loan seasoning or "credit vintage"; e.g., Salas and Saurina, 2002; Foos, Norden, and Weber, 2007) it is unsurprising that we do not find a deterioration in ex post performance of savings banks at this stage. However, Jiménez and Saurina (2004) have analyzed the ex post risk of individual bank loans to Spanish firms and found that loans granted by savings banks display a higher probability of default, which may be partially due to effects from the geographic expansion.

Based on the above findings, we conclude that the geographic expansion of savings banks is associated with an increase in ex ante risk taking. The effect becomes significantly stronger in the case of savings banks in which the regional government has a stake in the board of directors and there is no evidence that the higher risk is considered in loan pricing or mitigated by collateral. Savings banks' lending behavior in their home provinces is less risky and the higher ex ante borrower risk is not detected in case of firms that add new relationships with commercial or cooperative banks. These findings suggest that corporate governance has affected the lending activities of savings banks during the period of geographic expansion.

6. Tests of Robustness

In this section we briefly summarize results from three tests of robustness (detailed results are available from the authors upon request), considering different subsamples, a different corporate governance measure, and foreign banks as an alternative control group.

First, we study the sensitivity of previous results, repeating the main analysis for the first and second half of the sample period, for Madrid and Barcelona (42% of the entire sample) against the rest of Spain, by provinces, and for a balanced panel with at least eight subsequent yearly observations per firm (49% of entire sample). Analyzing data from the periods 1996-1999 and 2000-2004 separately supports our finding that savings banks lend to more risky borrowers in the new provinces. Comparing the three biggest cities with the rest of Spain also confirms our result in both subsamples. Interestingly, firms in rural provinces that start relationships with savings banks from other provinces are more risky than their counterparts in the urban areas. In addition, borrowers having a relationship with a savings banks from another province are ex ante more riskier than other firms in the same province in case of 41 out of 50 provinces (the nine provinces for which we cannot confirm our overall result typically exhibit a small number of observations). Finally, if we repeat all tests for a balance panel with either at least 8 yearly observations per firm

or a complete time series of 9 observations per firm leads to the same conclusions than for the entire (unbalanced) sample.

Second, since there is some indication in the literature that Spanish savings may have governance problems because of their dispersed ownership structure (e.g. Crespí, García-Cestona, and Salas, 2004) we investigate this issue in more detail. Specifically, we calculate the Herfindahl-Hirschman Index based on the stakes of all stakeholders (regional government, local government, employees, depositors, founders, and other institutions) and normalize it to its theoretical minimum to make it comparable across banks. We then compare firms that borrow from savings banks from other provinces which exhibit high or low ownership dispersion. It turns out that in both cases (high and low ownership dispersion) the borrowers are significantly riskier than firms borrowing from the same banks in their home markets and firms borrowing from other banks. We conclude that although theoretically appealing ownership dispersion does not provide an explanation why these banks engage in increased risk taking. This is further support that political influence on these banks seems to be the key issue in our context.

Third, instead of considering commercial banks as a control group we now compare the risk taking of savings banks with that of foreign banks. The latter also follow a strategy of geographic expansion, either at the international or domestic level inside Spain. Analyzing borrowers with at least one relationship with a foreign bank (the maximum number of relationships with foreign banks is 2) and controlling for firm size reveals that these firms are more risky than those who never borrow from foreign banks. This may be explained with standard arguments for new market entry (pricing policies, asymmetric information, etc.) and is similar to our finding that savings banks catch riskier borrowers in the new provinces. Most important, firms borrowing from at least one foreign bank (and never from savings banks from different provinces) are significantly *less* risky than firms borrowing from at least one savings bank from a different province (and never from a foreign bank). The difference becomes even larger if we consider

exclusively firms with one or two bank relationships in both groups. All of these findings hold in univariate tests as well as in multivariate probit models. This result from this test provide further support for our previous findings that the increased risk taking of savings banks may not only be explained by market entry itself but also by corporate governance problems and the influence of politicians.

7. Conclusions

Liberalization may lead to unexpected outcomes if the behavior of formerly regulated financial institutions is affected by weakness in corporate governance. In other words, financial institution regulation may suppress or minimize the effect of weak corporate governance on performance. When these regulatory constraints are removed, the interaction between corporate governance and financial institution behavior may become more critical. In particular, a deregulation of financial institutions that are government-owned and/or controlled by politicians may unleash potentially unhealthy growth policies that are primarily intended to non value-maximizing objectives. In this paper we study the effects of the interplay between branching deregulation and corporate governance on the lending behavior of the government controlled sector of the Spanish banking system, the Spanish savings banks. Our empirical analysis is based on a unique dataset including more than 100,000 firm-year observations that combines information on the geographic distribution of bank branches and matched lender-borrower financial statements for the period 1996-2004.

Our empirical evidence suggests that the structure of a savings bank's board of directors has a significant effect on a bank's geographic expansion. Those banks in which the regional government has a stake in the board of directors exhibit a higher degree of expansion, usually to more distant and wealthier provinces. Interestingly, we find that political connections are related to the decision on where to expand. Savings banks are more likely to open new branches and

extend new loans in provinces that are politically “close”. Moreover, these results are not attributable to an expansion strategy aimed at reducing risk by achieving a more diversified portfolio. Our findings show that the industry composition of savings banks’ commercial loan portfolios is not comparable to several relevant benchmarks, such as the loan portfolio at national level, or the loan portfolio of the biggest commercial banks.

Moreover, we find evidence that the geographic expansion of savings banks is associated with a significant increase in ex ante risk taking. This finding becomes substantially more pronounced in case of savings banks in which the regional government has a stake in the board of directors. In addition, there is no evidence that this more aggressive risk taking is reflected by higher loan rates or mitigated by collateral. Interestingly, savings banks’ lending behavior in their home provinces is less risky. Finally, we find that ex ante borrower risk is higher for firms that add a relationship with a savings bank expanding into a new province than for firms that add a new relationship with a commercial or cooperative bank. Several additional tests confirm the robustness of our main results.

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Figure 1

Evolution of bank branches and bank lending in Spain

These figures display the evolution of bank branches (Fig. 1a) and bank lending (Fig. 1b) during the period 1992-2004. The absolute numbers in both figures are converted into an index that equals to 100 in the year 1992.

Fig. 1a: Evolution of bank branches

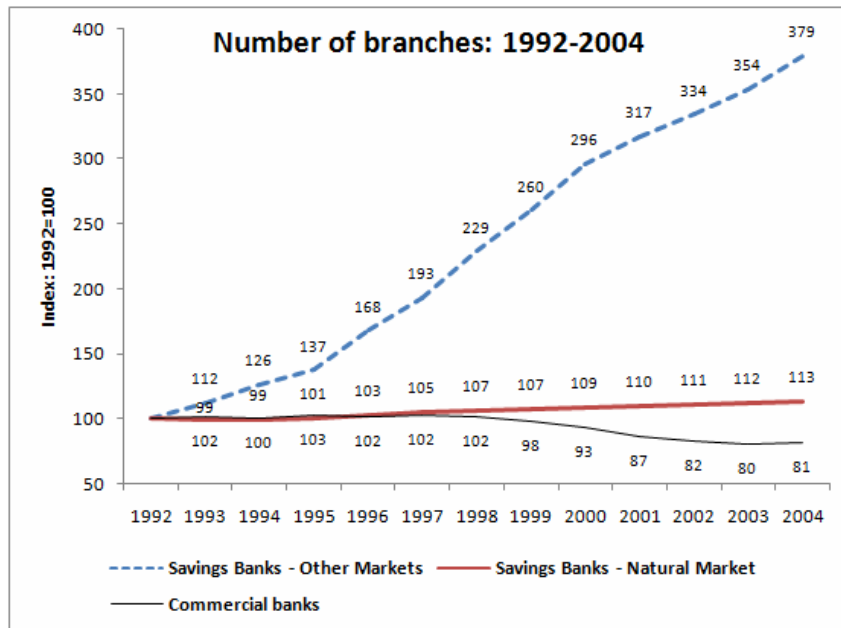


Fig. 1b: Evolution of bank lending

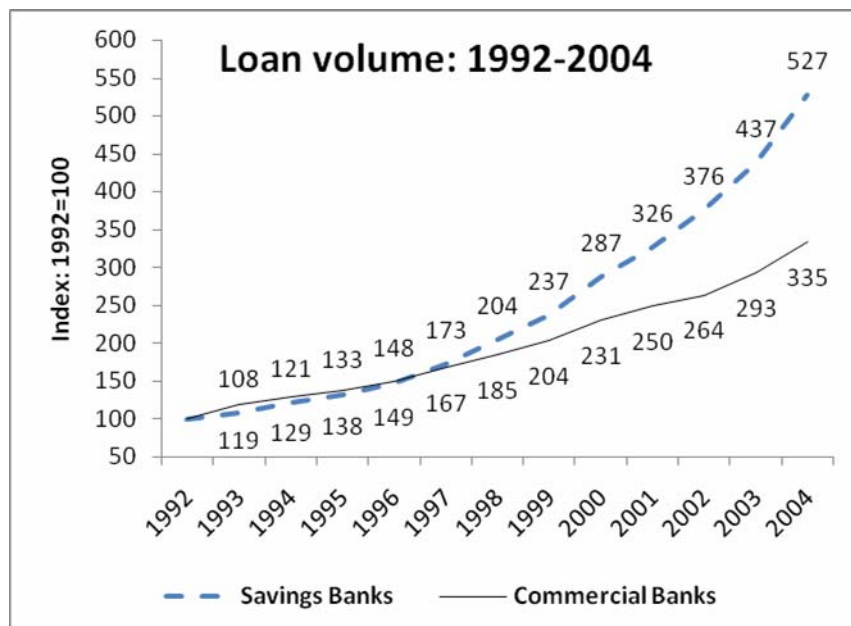


Figure 2

The influence of political and physical distance on the geographic expansion of savings banks

This figure shows the main patterns of savings banks geographic expansion. Savings banks are classified into two categories depending on whether the regional government has a stake or not in the board of directors. Even (odd) cells represent the savings banks in which the regional government does (not) have a stake. For both categories, target provinces are split into four categories according to two criteria: i) political connections of the board of directors in the target provinces, proxied by variable DIST_POL and ii) physical distance between the target provinces and the savings bank's home market. Cells 1 to 4 refer to neighboring provinces; whereas cells 5 to 8 refer to more distant provinces. Cells 1, 2, 5 and 6 represent the provinces that are politically close; whereas cells 3, 4, 7 and 8 represent the provinces whose regional government has a different political affiliation. Each cell reports the average percentage of loans (L) that are allocated by savings banks in the provinces included in the cell as well as the likelihood (PL) that savings banks decide to expand into these provinces.

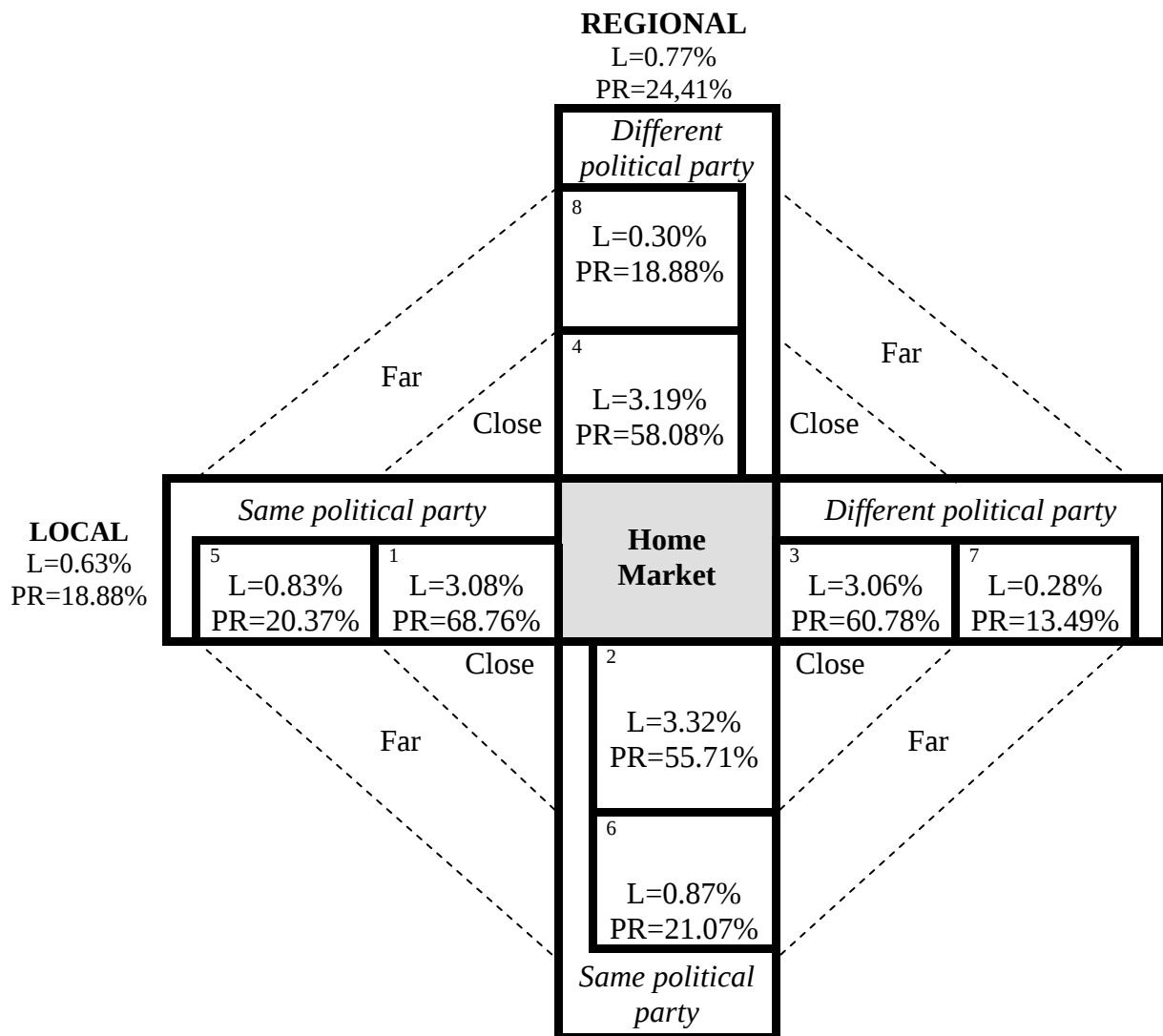


Figure 3

Portfolio diversification of savings banks and the biggest commercial banks in Spain

This figure shows the time evolution of the discrepancy between the industry structure of the loans granted by the savings banks and those extended by BBVA, the biggest commercial bank in the sample in terms of credit activity. The discrepancy measure is defined as $DM_{it} = \sum_{j=1}^S (SB_{jit} - CB_{jt})^2$ where SB_{jit} is the weight of industry j in the total amount of loans extended by the savings bank i in year t and CB_{jt} is the weight of industry j in the total amount of loans granted in year t by the BBVA. The graph reports the time evolution of the median (bold solid line), the 25th percentile and the 75th percentile of DM. To evaluate the magnitude of DM, the discrepancy between BBVA and the second biggest bank in the sample –BSCH– is also reported (thin solid line).

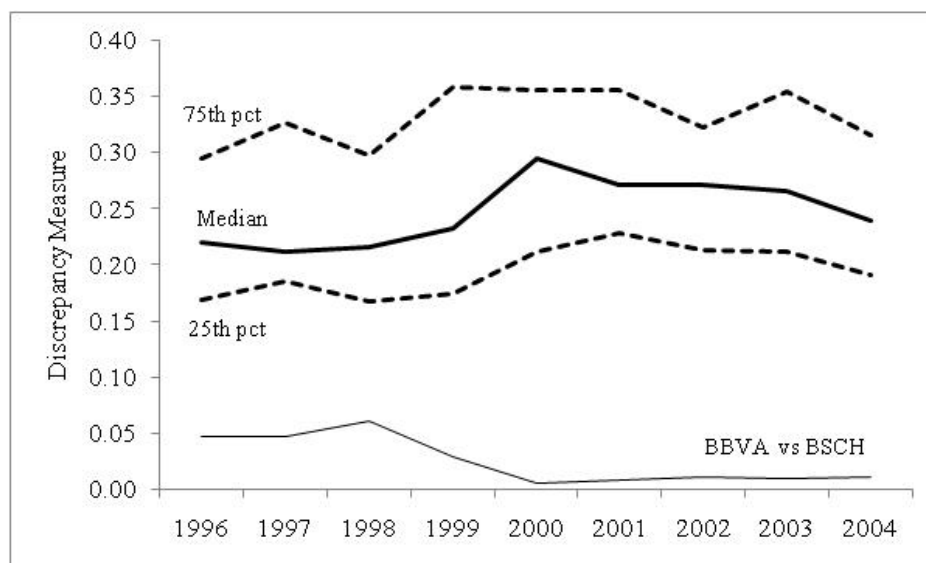


Table 1

Summary statistics

Panel A reports accounting and banking information for 26,204 firms (117,464 firm-year observations) during the period 1996-2004. Panel B reports data on all banks in Spain (1,847 bank-year observations) and Panel C provides information on macroeconomic, distance, and competition measures.

Panel A: Firm characteristics

Variables	Description	Q1	Median	Mean	Q3	N
<i>Size and opacity</i>						
TA	Total assets ('000 EUR)	4,681	8,277	59,048	18,547	117,464
SALES	Total sales ('000 EUR)	6,752	11,417	51,951	24,050	117,147
EMPL	Nb. of employees	32	62	241	132	103,148
AGE	Age of the firm (years)	11.00	18.00	21.12	27.00	117,464
BIGAUDIT	1 if firm has big auditor	0.00	0.00	0.30	1.00	117,464
<i>Capital structure</i>						
EQTA	Equity-to-total assets (%)	19.57	33.94	36.18	52.16	117,464
BDTA	Bank debt-to-total assets (%)	10.13	24.57	26.59	39.97	100,178
STDEBT	Short-term bank debt-to-total bank debt	32.30	65.91	60.66	93.39	101,315
<i>Liquidity</i>						
CASH	Cash-to-total assets	1.55	4.91	9.96	13.17	117,272
CURR	Current ratio (%)	99.20	122.32	203.84	167.60	117,409
LTASSETS	Long-term assets-to-total assets	11.50	24.98	28.68	41.51	114,928
<i>Profitability</i>						
PROF	Net profit ('000 EUR)	55.00	252.00	1,987.69	808.00	117,142
ROA	Return on assets (%)	0.84	3.21	3.59	7.05	117,142
ROE	Return on equity (%)	3.67	10.60	6.70	20.08	117,132
<i>Default risk</i>						
INTCOV	Interest coverage (%)	2.36	5.44	75.85	14.51	113,951
ZSCORE	Altman (1968)-Z-Score	1.10	1.86	2.42	2.85	89,319
<i>Bank-firm relationships</i>						
NREL	Nb. of bank relationships	1.00	2.00	2.86	4.00	117,464
RELMIX	Mix of bank relationships, normalized by NREL	1.00	1.00	1.25	1.40	117,464
COM	1 if commercial bank	1.00	1.00	0.92	1.00	117,464
SAV	1 if savings bank	0.00	0.00	0.47	1.00	117,464
COP	1 if cooperative bank	0.00	0.00	0.04	0.00	117,464

Table 1

Summary statistics (cont'd)

Panel B: Banks characteristics							
Bank variables	All bank-year observations (N=1,847)				Comm. Banks (N=756) Median	Savings banks (N=434) Median	Coop. banks (N=657) Median
	Q1	Median	Mean	Q3			
<i>Size</i>							
Total assets TA (mill. EUR)	165	749	4,772	3,254	939	4,215	196
Nb. of branches per bank	3	48	178	169	14	204	15
<i>Profitability</i>							
ROA (%)	0.51	0.78	0.77	1.13	0.58	0.81	0.93
ROE (%)	5.73	8.92	8.19	12.29	6.09	10.69	9.52
Interest income / TA (%)	0.15	0.51	0.72	1.07	0.20	0.99	0.55
<i>Asset and liability structure</i>							
Equity / TA (%)	6.94	8.80	12.69	11.44	8.98	7.98	9.43
Deposits / TA (%)	59.17	79.20	66.30	85.80	51.09	80.39	85.99
Loans / TA (%)	42.25	58.74	54.75	70.62	47.45	63.55	60.33
<i>Risk</i>							
Δ Loan loss provisions / TA (%)	0.07	0.24	0.27	0.41	0.16	0.29	0.28

Panel C: Macroeconomic, distance and competition measures

Province variables	Q1	Median	Mean	Q3	N
GDP per capita (Index: Spain=100%)	81.99	97.15	100	116.2	450
Inhabitants (Index: Spain=100%)	42.61	66.37	100	109.8	450
Inter-province distances (kilometers)	358	562	668	797	2,450
Loan market concentration (HHI)	10.84	12.79	13.85	16.16	450
Market share by bank type (%)					
<i>Commercial banks</i>					
Branches	29.80	37.41	38.71	47.36	450
Customers	64.04	70.28	69.43	76.26	450
Loans	61.48	70.98	69.51	78.17	450
<i>Savings banks</i>					
Branches	40.30	46.41	47.53	54.47	450
Customers	21.97	26.41	26.92	30.88	450
Loans	20.35	26.26	27.05	33.27	450
<i>Cooperative banks</i>					
Branches	4.24	13.08	13.76	21.56	450
Customers	0.64	2.36	3.65	4.71	450
Loans	0.31	1.54	3.44	4.43	450

Table 2

Determinants of the amount of loans allocated by the Spanish savings banks in the provinces not included in their natural markets

This table presents results of regression models estimated to evaluate the effect of corporate governance on the degree of expansion of savings banks. Regressions I, III and V are estimated using a TOBIT model, whereas regressions II, IV and VI are estimated using a PROBIT model. P-values are robust to heteroscedasticity and savings bank-province clustering effects. Dependent variables are as follows. L_{ijt} is the proportion of loans extended by the savings bank i in the province j to the total amount of loans granted by i in year t . PL_{ijt} is a dichotomous variable which equals to one if $L_{ijt} > 0$ and zero otherwise. B_{ijt} is the proportion of operating branches in province j in year t to the total number of branches. PB_{ijt} is a dichotomous variable which equals to one if $B_{ijt} > 0$ and zero otherwise. LWB_{ijt} equals to L_{ijt} if the savings bank i does not have any operating branch in province j and zero otherwise. Finally, $PLWB_{ijt}$ is a dichotomous variable which equals to one if $LWB_{ijt} > 0$ and zero otherwise. Independent variables include bank-province, specific province and specific bank variables. The bank-province variables are as follows. $DIST_PHY_{ij}$ is a dichotomous variable which equals to zero if the province j is a neighbor province of the savings bank i 's home market and zero otherwise. $DIST_POL_{ijt}$ is a dichotomous variable which equals to one if the political affiliation of the regional government in province j in year t is different to that of the regional government which has a stake in the board of directors of savings bank i , and zero otherwise. If the regional government does not have any stake in the board of directors, the political distance is measured according to the affiliation of the political party which is ruling the provinces that belong to the savings bank's home market (if these provinces are ruled by different parties, the most voted party across the provinces is considered). $REGION_{ij}$ is a dummy variable which equals to one if the province j belongs to the region in which the savings bank i 's headquarters are located. Specific-province variables are as follows. $MADRID_j$ is a dummy variable which equals to one if the province j is Madrid and zero otherwise. GDP_CAP_j is the GDP per capita of province j (Index: Spain=100). POP_j is the number of inhabitants of province j (Index: Spain=100). $BCOM_j$ is the market share of the commercial banks in the loans market of province j . Specific-bank variables are as follows. $STAKE_i$ is a dichotomous variable which equals to one if the regional government has a stake in the board of directors of savings bank i and zero otherwise. $BANK_SIZE_i$ is the natural logarithm of the total assets of savings bank i . $EQTA_i$ is the equity to total assets ratio of savings bank i . All regressions include year dummies. The data used to estimate Models I, II, V and VI are from 47 savings banks during the period 1996-2002. The data used to estimate Models III and IV correspond to the period 1992-2004.

Variable	Predicted Signs	Loans in provinces out of the natural market		Branches in provinces out of the natural market		Loans in provinces without branches	
		Model I L	Model II PL	Model III B	Model IV PB	Model V LWB	Model VI PLWB
INTERCEPT		-0.7597 (0.000)	-14.629 (0.000)	-0.4239 (0.000)	-17.177 (0.000)	-0.3393 (0.000)	-4.9006 (0.000)
<i>Bank province variables</i>							
DIST_PHY	(-)	-0.0716 (0.000)	-1.2483 (0.000)	-0.0436 (0.000)	-1.1613 (0.000)	-0.0347 (0.000)	-0.4979 (0.000)
DIST_POL	(-)	-0.0156 (0.000)	-0.1684 (0.009)	-0.0072 (0.000)	-0.2237 (0.001)	-0.0100 (0.000)	-0.0533 (0.430)
REGION	(+)	0.0773 (0.000)	1.1778 (0.000)	0.0569 (0.000)	1.3599 (0.000)	0.0104 (0.033)	0.0221 (0.885)
<i>Province variables</i>							
MADRID	(+)	0.0868 (0.000)	0.5526 (0.065)	0.0362 (0.000)	2.3070 (0.000)	-0.0613 (0.000)	-1.0531 (0.000)
BCOM	(+)	0.0354 (0.000)	0.6032 (0.022)	0.0013 (0.759)	-0.3869 (0.280)	0.0540 (0.000)	0.5130 (0.064)
GDP_CAP	(+)	0.0319 (0.000)	0.6009 (0.000)	0.0029 (0.113)	0.1560 (0.243)	0.0386 (0.000)	0.5806 (0.000)
POP	(+)	0.0268 (0.000)	0.3615 (0.000)	0.0124 (0.000)	0.3013 (0.000)	0.0120 (0.000)	0.1386 (0.000)
<i>Bank variables</i>							
STAKE	(+)	0.0091 (0.000)	0.1167 (0.057)	-0.0058 (0.000)	-0.1768 (0.012)	0.0139 (0.000)	0.2327 (0.000)
BANK_SIZE	(+)	0.0413 (0.000)	0.8503 (0.000)	0.0262 (0.000)	1.0915 (0.000)	0.0077 (0.000)	0.1466 (0.000)
EQTA	(+)	-0.0025 (0.965)	0.7346 (0.681)	-0.0698 (0.006)	-2.4483 (0.278)	0.3152 (0.000)	4.0614 (0.018)
Year Dummies		Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R ²			0.4194		0.5124		0.0712
N		20,688	20,688	30,634	30,634	20,688	20,688
Chi ²		79891.13 (0.000)	818.82 (0.000)	12,356.4 (0.000)	650.61 (0.000)	628.57 (0.000)	205.85 (0.000)

Table 3

Analysis of the industry composition of savings banks' loan portfolios

This table reports TOBIT coefficients with p-values in parentheses. The dependent variable, PL_IND_{ijt} , is the ratio of the out-of-the-home-market loans extended by the savings bank i , in year t and industry j ($LOAN_{ijt}$) to the total amount of loans granted in the provinces not included in the natural market (N): $PL_IND_{ijt} = LOAN_{ijt} / \sum LOAN_{ijt}$. $TARGET_{ijt}$ is the percentage of loans allocated in year t to industry j in the provinces where savings bank i is expanding, $HOME_{ijt}$ is the percentage of loans allocated by all the banks in year t to industry j in the provinces belonging to the home market of savings bank i , and DIF_{ijt} is the difference between the percentage allocated in year t to industry j at the national level and the percentage allocated by all the banks in the provinces included in the savings bank's home market. The data used to estimate Models I to IV are from 47 savings banks during the period 1996-2002.

Variable	Predicted signs	Model I	Model II	Model III	Model IV
INTERCEPT		-0.0897 (0.005)	-0.0839 (0.000)	-0.0716 (0.000)	-0.0916 (0.000)
TARGET	(+)	1.3666 (0.000)			1.2177 (0.000)
HOME	(+)		0.8684 (0.000)		0.3537 (0.000)
DIF	(+)			-0.3579 (0.000)	-0.1565 (0.000)
Year Dummies		Yes	Yes	Yes	Yes
N		24,143	24,143	24,143	24,143
Chi ²		1,585.51 (0.000)	2,527.26 (0.000)	360.94 (0.000)	3,011.49 (0.000)

Table 4

Firm characteristics by structure of bank relationships

This table reports median values of total assets (TA), the equity-to-total assets ratio (EQTA), the return on assets (ROA), the Z-Score (ZSCORE) the number of bank relationships (NREL) and the mean share of firms with a big auditor (BIGAUDIT) by structure of bank relationships. “Never” refers to data from firms that never have a relationship with savings banks from other provinces, “Ex ante” (“Ex post”) to data from the period before (after) the starting year of the first relationship with a savings banks from another province (NEW=1) and “Average” refers to the complete time series of firms these firms. The “Ex ante”-data is differentiated for firms banking with savings banks from other provinces in which the regional government (i) has no stake (NEW_RG=0), (ii) has a stake (NEW_RG=1), and (iii) has a stake and is from the same political party as the government of the borrower’s region (NEW_RG_P=1). The rightmost column reports p-values from a non-parametric test of significance. The data are from 26,204 Spanish firms during the period of 1996-2004.

Panel A: All firm-year observations (n=117,464)

Variable (Medians)	Never	Firms borrowing from savings banks from other provinces?						P-val. (Wilcoxon rank sum test) Never vs. Ex ante
		Yes (NEW=1)					Average	
		Ex ante	No stake of reg. gov. in sav. banks (NEW_RG=0)	Stake of reg. gov. in sav. banks (NEW_RG=1)	Stake of reg. gov. & same political party (NEW_RG_P=1)	Ex post		
TA	8,009	8,490	8,445	8,529	8,263	9,226	9,000	0.000
EQTA	35.84	30.27	32.18	28.95	28.42	29.49	29.75	0.000
CURR	125.92	116.04	117.74	114.92	115.25	113.93	114.63	0.000
ROA	3.41	2.98	3.19	2.81	2.84	2.69	2.78	0.000
ZSCORE	1.97	1.69	1.78	1.64	1.64	1.61	1.64	0.000
NREL	2	3	3	3	3	4	4	0.000
BIGAUDIT	31.57	24.69	25.75	23.83	22.86	26.10	25.64	0.000
Nb. of obs.	84.158	10.738	4.847	5.891	3.443	22.568	33.306	

Panel B: Firms borrowing only from savings banks in each year (n=8,432)

Variable (Medians)	Never	Firms borrowing from savings banks from other provinces?						P-val. (Wilcoxon rank sum test) Never vs. Ex ante
		Yes (NEW=1)				Ex post	Average	
		Ex ante	No stake of reg. gov. in sav. banks (NEW_RG=0)	Stake of reg. gov. in sav. banks (NEW_RG=1)	Stake of reg. gov. & same political party (NEW_RG_P=1)			
TA	6,180	7,299	7,976	6,695	6,371	7,462	7,421	0.000
EQTA	33.02	24.68	23.85	25.79	23.35	27.93	27.09	0.000
CURR	119.32	103.74	102.61	105.23	103.38	109.70	108.65	0.000
ROA	3.29	2.85	2.90	2.79	2.59	2.71	2.73	0.079
ZSCORE	1.85	1.54	1.62	1.48	1.64	1.56	1.55	0.000
NREL	1	1	1	1	1	1	1	0.297
BIGAUDIT	27.53	23.54	25.74	23.83	11.70	30.31	30.03	0.041
Nb. of obs.	5.511	636	328	308	201	2.285	2.921	

Table 5

Probability of having a relationship with savings banks from other provinces

This table presents results from cross-sectional time-series pooled (multinomial) probit regression models estimating the probability of having a relationship with savings banks from other provinces (Model 1, dependent variable NEW), with savings banks from other provinces in which the regional government has or has not a stake (Model 2, dependent variable NEW_RG), and savings banks from different provinces in which the regional government has or has not a stake and whether the political party in the bank's and firm's region are the same (Model 3, dependent variable: NEW_RG_P). Firms that *never* have a relationship with savings banks from other provinces serve as reference category. Explanatory variables are the Z-Score (ZSCORE), the natural logarithm of total assets (Ln(TA)), a binary variable indicating whether the firm has a big auditor (BIGAUDIT), and the number of bank relationships (NREL). The data are from 26,204 Spanish firms during the period of 1996-2004. Note: Data on firms that start a relationship with a savings bank from a different province refer only to the years *before* starting such a bank relationship in order measure ex ante characteristics.

Panel A: Multinomial regression models						
Dep. Variable:	Model 1 (Probit) NEW=1		Model 2a (Multinomial) NEW_RG=0		Model 3a (Multinomial) NEW_RG_P=-1	
	Coef.	p-val.	Coef.	p-val.	Coef.	p-val.
ZSCORE _t	-0.041	0.000	-0.055	0.004	-0.055	0.004
Ln(TA) _t	0.035	0.007	0.042	0.207	0.042	0.207
BIGAUDIT	-0.206	0.000	-0.326	0.001	-0.326	0.001
NREL	0.091	0.000	0.124	0.001	0.124	0.001
INTERCEPT	-1.396	0.000	-2.977	0.000	-2.977	0.000
Dep. Variable:			NEW_RG=1		NEW_RG_P=0	
			Coef.	p-val.	Coef.	p-val.
ZSCORE _t			-0.105	0.000	-0.114	0.000
Ln(TA) _t			0.086	0.005	0.108	0.004
BIGAUDIT			-0.453	0.000	-0.446	0.000
NREL			0.201	0.000	0.203	0.000
INTERCEPT			-3.198	0.000	-2.977	0.000
Dep. Variable:					NEW_RG_P=1	
					Coef.	p-val.
ZSCORE _t					-0.102	0.001
Ln(TA) _t					0.049	0.303
BIGAUDIT					-0.477	0.000
NREL					0.178	0.000
INTERCEPT					-3.561	0.000
Year dummies	Yes		Yes		Yes	
Nb. of obs.	68,564		68,564		68,564	
McFadden R ²	0.0306		0.0267		0.0249	

Panel B: Probit models				
Dep. Variable:	Model 2b (Probit) NEW_RG=1		Model 3b (Probit) NEW_RG_P=1	
	Coef.	p-val.	Coef.	p-val.
ZSCORE _t	-0.028	0.057	0.004	0.837
Ln(TA) _t	0.028	0.335	-0.033	0.366
BIGAUDIT	-0.072	0.321	-0.025	0.799
NREL	0.046	0.002	-0.028	0.143
INTERCEPT	-0.149	0.563	0.291	0.160
Year dummies	Yes		Yes	
Nb. of obs.	9,049		4,932	
McFadden R ²	0.0083		0.0061	

Table 6

Firms adding new bank relationships by type of new bank

This table compares characteristics of firms with a constant number of bank relationships, firms *before* they add a new relationship with a commercial or cooperative bank, and firms *before* they add a new relationship with a savings bank from another province. The reference year is 1996, i.e. for the latter two groups we consider only firms that add a new bank relationship in 1997 in comparison to 1996.

Variable	Constant nb. of bank relation- ships	New relationship with commercial or cooperative banks			New relationship with savings banks from other provinces			P-val. (Wilcoxon rank sum test)
(Medians)		(starting in 1997 at earliest)			(starting in 1997 at earliest)			Ex ante vs. Ex ante
		Ex ante	Ex post	Average	Ex ante	Ex post	Average	
TA	7,968	8,157	8,540	8,227	8,489	9,226	9,000	0.000
EQTA	34.93	35.86	34.50	35.62	30.27	29.48	29.74	0.000
CURR	123.80	125.76	124.57	125.52	116.02	113.93	114.63	0.000
ROA	3.31	3.44	3.00	3.37	2.97	2.68	2.79	0.000
ZSCORE	1.94	1.95	1.81	1.93	1.69	1.61	1.64	0.000
NREL	2	2	3	2	3	4	4	0.000
BIGAUDIT	0.33	0.27	0.26	0.27	0.25	0.26	0.26	0.000
Nb. of obs.	60,990	27,909	6,247	34,156	17,832	4,486	22,318	