Liberalization, Bank Governance, and Risk Taking

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Abstract

We study the effects of the interplay between deregulation and governance on risk taking in the financial industry. We consider a large natural experiment in Spain where the removal of regulatory geographic constraints for savings banks led to a nationwide expansion of these banks during the past two decades. Based on a unique data set that combines information on the geographic distribution of bank lending, matched lender-borrower financial statements, and borrower defaults, we find that the governance of savings banks significantly affects the way in which they expand their lending activities. In particular, political influence at these banks is associated with higher ex ante risk taking and higher ex post loan defaults. Our study highlights the broader implications of the impact of global deregulation and consolidation and their interaction with governance issues.

This version: November 16, 2011

Keywords: Deregulation; Bank loans; Risk taking; Geographic expansion; Bank ownership

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

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An earlier version of this paper circulated under the title "Liberalization, Corporate Governance, and Savings Banks". The authors are grateful to Patrick Behr, Lamont Black, Santiago Carbó Valverde, Riccardo De Bonis, Andrew Ellul, Xavier Freixas, Hamid Mehran, Steven Ongena, Francisco Pérez, Andreas Pfingsten, Vicente Salas, Javier Suarez, and Martin Weber, as well as to participants at the Conference "The Changing Geography of Money, Banking, and Finance in a Post-Crisis World" in Ancona, the FDIC Banking Conference 2009 in Arlington, 4th FIRS Conference in Prague, the 11th Symposium on Finance, Banking, and Insurance in Karlsruhe, the European Finance Association Meeting 2008 Athens Meetings, the European Summer Symposium in Financial Markets 2008 in Gerzensee, the 15th German Finance Association Meeting in Münster, the Finance Seminar at the International Division of the Federal Reserve Board, the Finance Brown Bag Seminar at Indiana University, the BBVA Workshop in Finance at the University of Valencia, and the Workshop in Banking and Finance at the University of Mannheim.

The main motivation of economic liberalization is to foster competition in order to increase allocative efficiency, economic growth and social welfare. This paradigm hinges on the assumption that firms follow value-maximizing objectives and that the presence of more firms in local markets automatically leads to more competition. However, this view does not take into account the link between regulation and corporate governance, and its influence on firm behavior. Specifically, liberalization may lead to unexpected outcomes if firm (or industry) behavior is influenced by weaknesses in corporate governance. In other words, regulation may mitigate the negative effect of weak corporate governance on firm performance. When regulatory constraints are removed, the interaction between corporate governance and firm behavior may become critical for the outcomes of economic liberalization particularly if firm behavior is not primarily driven by value-maximization and if the regulatory constraints had been designed to inhibit risk taking.

In this article we study the effects of the interplay between liberalization and governance on risk taking in the financial industry. We take advantage of a large natural experiment in Spain where the removal beginning in 1988 of branching barriers on savings banks, also known as the caja banks, led to a dramatic nationwide expansion of these banks during the past two decades. We explore the role that governance and political influence may have played in this risk increasing behavior. It is now abundantly clear that the outcome of this liberalization in Spain was not the desired one. Large parts of the Spanish savings bank sector came under serious financial distress during the financial crisis. The majority of those banks that failed Europe's bank stress tests in 2010 and 2011 were cajas. Many of the caja banks could not have survived without help from the Bank of Spain or the federal government.

We focus on two specific dimensions of the crisis in the Spanish savings bank industry: the governance structure of the caja banks and the rapid expansion of the cajas that followed the geographic deregulation of this industry. (In referring to the Spanish banking system we

will use the term cajas and savings banks interchangeably.) The governance of these banks is interesting because they are state-owned, not privately owned. State ownership may be problematic because it makes these savings banks vulnerable to government control and political rent seeking (e.g., Bertrand, Schoar and Thesmar 2007; Sapienza 2004; La Porta, Lopez-de-Silanes, and Shleifer 2002). The second dimension is interesting because Spain removed the geographic barriers that had limited the cajas' banking activities to their own state. The rapid expansion across state boundaries that followed was associated with aggressive growth in lending and a reallocation within the loan portfolio away from historically safer residential mortgage lending towards riskier commercial lending.[4] We analyze the interaction between these two characteristics to determine whether the governance structure of the savings banks and its vulnerability to political influence affected how Spanish banks exploited the opportunity to expand geographically. We find in our analysis that political influence mattered in determining how these banks expanded and how much risk they took in doing so – both ex ante and ex post. Moreover, we find that the risk they took was considerable.

The story of the cajas banks is compelling, in part, because Spain plays such an important role in shaping the evolution of the global financial crisis. But, their story is also relevant because of what it tells us about other countries, most of which also have a major component of their banking industries that have a non-corporate governance structure. Specifically, most economies have savings banks and/or their cousins, co-operative banks. As in Spain, these 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.

[4] 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%).

Consequently, these banks built up local branch networks to serve their customers, initially focusing on geographically restricted markets. But, over time many countries, like Spain, allowed this segment of their banking industry to expand well beyond this local focus. This expansion happened along several dimensions, such as geographic outreach, customer segments, and financial products.

One interesting example of this phenomenon was 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). 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).[5]

A more recent example in the U.S. that has occurred virtually under the radar screen of academic scrutiny is the liberalization of the credit union industry. Like the cajas, U.S. credit unions have been allowed over the last several decades to significantly depart from their local focus. Some credit unions have even become national in scope. Perhaps an even more interesting aspect of credit union liberalization in the U.S. has been on the product side where legislation is now being debated that would allow credit unions to expand their exposure to business loans from 12.5% of assets to 27.5% of assets.

[5] Recently another significant component of the U.S. banking industry that has a cooperative form of governance has been significantly deregulated on several dimensions – credit unions. Historically these institutions were constrained to providing a limited number of consumer services to a limited number of customers (i.e., "members"). Both of these constraints have been significantly relaxed to the point where credit unions now offer commercial lending.

Other interesting examples include: the abolishment of state guarantees for savings banks in Germany between 2001-2005 due to concern under European Union law about prohibited subsidies (e.g., Gropp, Gründl, and Güttler 2011); the failure of the credit cooperatives in Japan in the very early stages of the 1990s banking crisis (Nakaso 2001); the banking deregulation in France in the mid 1980s (e.g., Bertrand, Schoar and Thesmar 2007); the recent run on the savings bank sector in Korea; 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; Berger et al. 2005; Dinç 2005; Hau and Thum 2009; Puri, Rocholl and Steffen 2011). Our study of the Spanish savings bank phenomenon may be helpful in analyzing both past problems in this sector of the banking system and problems going forward.

Our analysis is based on a unique dataset with more than 170,000 firm-year observations that combines information on the geographic distribution of bank branches, matched lender-borrower financial statements, and borrower defaults. Our principal result is that the geographic expansion of Spanish savings banks is associated with a significant increase in ex ante risk taking and ex post default risk. The cajas lent to firms in new markets that were ex ante more risky than the borrowers in their home markets and than those of privately owned commercial banks. We also document that these firms were more likely to file for bankruptcy. The increase in risk taking becomes substantially stronger for cajas in which regional governments have a stake in the board of directors, for an expansion to regions that are ruled by the same political party as the home region of the bank, and for the lending to firms from the real estate and construction industry. We detect a direct link between the political influence of regional governments and the management of savings banks. Specifically, we show that chairman and CEO turnover is significantly higher after regional elections in which

the ruling party changes. In several additional tests we rule out alternative explanations and confirm the robustness of our main findings. Overall, our empirical results show that deregulation led to a differential in risk taking in the Spanish banking system that was related to the governance structure in the industry.

The remainder of this paper is organized as follows. In Section 1, we review the literature on banking liberalization, bank behavior and economic activity, and the literature on government ownership of banks. In Section 2 we describe the institutional background and the data. In Section 3 we report the main results from our empirical analysis. In Section 4 we present findings from tests of alternative explanations. In Section 5 we provide evidence on ex post risk. Section 6 concludes.

1. Related literature

1.1 Banking liberalization, bank behavior and economic activity

A key policy motivation driving banking liberalization is the promotion of economic growth and social welfare. Some research has focused directly on the link between deregulation and economic growth. Several studies, for example, found evidence that the relaxation of intrastate bank branch restrictions in the U.S. led to an increase in growth (Jayaratne and Strahan 1996; Clarke 2004). However, another study found evidence that was more nuanced. This study found that some branching deregulation events in some areas of the U.S. had real positive effects but the majority did not (Huang 2008).

A number of other studies have focused on the impact of deregulation on competition (an intermediate step between liberalization and real effects). Most of these studies, both in Europe and the U.S., have found that deregulation has led to an increase in competition (e.g., Stiroh and Strahan 2003; Bertrand, Schoar, and Thesmar 2007) including two studies in Spain (Carbó Valverde, Humphrey, and Rodríguez Fernández 2003; and Salas and Saurina 2003).

Another strand of the literature on deregulation in banking has focused more specially on the link between liberalization and credit allocation. To some extent this literature can be viewed in the context of the broader literature on relationship lending which has emphasized the importance of distance, competition and bank size (e.g., Petersen and Rajan 2002; Stein 2002; Degryse and Ongena 2005). One study on this topic found that lending by banks that pursue cross border expansion can lead to higher ex post default rates relative to incumbent banks, although this can be mitigated if the new entrant opens new branches (Bofondi and Gobbi 2006). Research also suggests that relationship lenders may face problems in discriminating between low and high risk borrowers if they expand to new markets without adapting transactions-based lending technologies (DeYoung, Glennon, and Nigro 2008).[6] Another study has investigated the problems of expansion associated with the distance between the branches where loans are booked and the bank headquarters where the lending decisions are made (Alessandrini, Presbitero, and Zazzaro 2009).

The size structure of the market may matter if small banks are better at relationship lending. This is relevant in Spain because of evidence that deregulation has been associated a more rapid growth in the size of large banks than small banks (Benito 2008). While much of the academic literature has focused on the advantages of small banks in providing lending to smaller opaque borrowers (e.g., Stein 2002; Berger et al. 2005), other research has suggested that large banks may be able to lend efficiently to these firms under certain circumstances (Berger, Rosen and Udell 2007; de la Torre et al. 2010; DeYoung, Glennon, and Nigro 2008; Uchida, Udell and Yamori 2011).

One other link between liberalization and the ultimate policy impact on real economic performance is the link between deregulation and the efficiency of the banking system.

[6] There is also an extensive literature on bank expansion, cherry-picking and the relative advantage of incumbents vs. entrants (e.g., Berger et al. 2001; Dell'Ariccia and Marquez 2004; Mian 2006; Sengupta 2007). For papers that investigate how entrant banks lend see, for example, de la Torre et al. (2010), Haas et al. (2010) and Beck et al. (2011).

Several studies have addressed this issue. One study found evidence that branching deregulation was associated with better performing banks increasing their market share (Stiroh and Strahan 2003). Another study found efficiency gains from deregulation in terms of increased portfolio diversification (Acharya, Imbs and Sturgess 2011). As noted above bank risk can also be affected because expansion can lead to the acquisition of riskier credits. However, branching strategy can mitigate this (Bofondi and Gobbi 2006). Other evidence on risk and liberalization suggests that deregulation leads to an increase in loan quality (e.g., Jayaratne and Strahan 1996, Bertrand, Schoar and Thesmar 2007). The issue of risk and liberalization is a major focus of our paper and how this may be related to bank governance and political influence.

1.2 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 (e.g.,. La Porta, Lopez-de-Silanes, and Shleifer 2002).

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; Berger et al. 2005; Ianotta, Nocera, and Sironi 2007; Hau and Thum 2009; Puri, Rocholl and Steffen 2011). In addition, political influence appears to play a role in

their behavior in ways that affects their lending behavior and appetite for risk-taking (Sapienza 2004; Dinç 2005; Gropp, Gründl and Güttler 2011).

Some empirical evidence indicates that the governance mechanisms of large state-owned banks in Germany were weaker than private sector banks and that this partially explains the poor performance of these banks during the recent financial crisis (Hau and Thum 2009). The behavior of the thrift industry 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. There is evidence of expense preference behavior and lower efficiency in mutual savings banks and savings and loan associations (Akella and Greenbaum 1988; Mester 1989; Mester 1991) and evidence that that insider controlled thrifts were more likely to engage in risk taking than diversely held institutions (Knopf and Teall 1996).

There are a number of studies that have examined corporate governance in the banking industry in Spain. Some research indicates that savings banks exhibit weaker internal control mechanisms than other banks and that there is a significant relationship between performance and governance intervention for savings banks when they merge (Crespí, García-Cestona, and Salas 2004). Some studies have specifically focused on lending and how it might differ between commercial banks and savings banks. This research indicates that loans made by savings banks in Spain tend to be riskier (Jiménez and Saurina 2004) and that loan portfolio performance is more sensitive to bank characteristics (e.g., growth policies, managerial incentives, and managerial inefficiency) for savings banks than other banks (Salas and Saurina 2002).[7] Also, there is evidence that savings banks in Spain may focus more on

[7] There is also a growing literature on corporate governance in banking and risking taking during the build-up to the current financial crisis. However, the findings in this literature are mixed on the association between strong governance and successful risk management (Ellul and Yerramilli 2010; Beltratti and Stulz 2011). One paper suggests a recidivist effect where poor performers during the 1998 (Russian default) crisis tended to be the poor performers during the current crisis (Fahlenbrach, Prilmeier and Stulz 2011). This finding suggests the existence of a more fundamental driver of bank culture.

relationship lending and that small and medium-sized savings banks lend to riskier firms on average than do commercial banks and that these preferences are affected by political influence (Delgado, Salas, and Saurina 2007).

2. Institutional Background and Data

2.1 Savings banks and the banking deregulation in Spain

The cajas represent a significant component of the Spanish banking system. They exhibit a market share of 47% of the aggregate lending and deposit taking in Spain.[8] Similar to many other European countries, the savings banks in Spain have existed for approximately 200 years and were established by local governments, churches, and welfare societies to promote savings by middle- and working-class people, and to provide lending to small businesses from the same city or province. Consistent with their history, the cajas are private foundations with no formal owners. These banks either have to fully retain their profits or to invest a fraction of the profits in social or community programs (i.e., the so-called "social dividends"). By virtue of a national law enacted in 1985, the control of these banks was given to four different stakeholders: depositors, local governments, founders and employees, who obtained 44%, 40%, 11% and 5% of the voting rights on the board of directors, respectively. Subsequently, a number of Spanish regions added the regional governments to the list of stakeholders, usually at the expense of the local governments' voting rights. Although all stakeholders were represented on the board, not all of them had the ability to influence the bank's management.[9] Typically, the decision making in the cajas was subject to the influence of both local and

[8] In addition to savings banks, commercial banks and credit cooperatives compete in the loan and deposit markets as well, with a share of 47% and 6%, respectively. Credit cooperatives 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.

[9] Depositors, for instance, were usually less involved in the bank's activities because their objectives were already protected by deposit insurance, and because the mechanism used to elect their representatives -a lottery- made it difficult for them to coordinate their interests and actions.

regional politicians, and the professional bank managers, who used to have control over the voting rights of the depositors.

In the late 1980s, following the wave of liberalization in various European countries, the cajas lobbied for branching deregulation in order to improve their competitiveness with commercial banks in lending activities. In 1975, a national law had extended i) the geographic limits of these banks to the entire province in which the headquarters of the savings banks were located and ii) the so-called complementary operational scope, including adjacent provinces where the savings banks were already operating. 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's "home market" has to be seen 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 meet at least one of the two following criteria in 1992 (the first year with available information on branches): i) savings bank i has more than 50% of its own branches in the province or, ii) savings bank i has more than 5% of the total number of branches located in that province. According to this definition, the number of provinces that belong to a savings bank's home market varies from one to seven. Until 2008, the home market of a savings bank frequently consists of 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.

For many cajas, the last and most dramatic phase of their geographic expansion coincided with a period of high growth rates in the Spanish economy, which was associated with an enormous boom in the domestic real estate market. Strikingly, the lending volume of savings banks to real estate and construction firms increased by a factor 45 from 1989 to 2010. The burst of the real estate bubble after the beginning of the global financial crisis, and especially

after the failure of Lehman Brothers, led to a serious deterioration of loan values, which endangered the solvency of the cajas, particularly those who heavily expanded in the years from 2005 to 2008. As of July 2011, the Bank of Spain has already bailed out three out of 51 cajas since the beginning of the crisis, and 26 cajas have engaged in mergers with government funding.[10] The fact that the cajas were hit particularly hard by the burst of the real estate bubble raises doubts about their business model, and possibly more importantly their governance structure. Regarding their governance structure, two main shortcomings have been emphasized. First, the equity of these banks largely consists of retained earnings. The absence of common shares implies that there is no market for corporate control (Crespi, García-Cestona, and Salas, 2004). Second, these banks are vulnerable to political influence, especially when regional governments have a stake in the board of directors.[11] Consistent with that view, the Royal Decree 11/2010 on the corporate governance of savings banks includes explicit provisions to reduce the influence of politicians on these banks and to increase the requirements to be appointed as a savings bank's CEO.

2.2 The data

We collect information on all savings banks, commercial banks, credit cooperatives, foreign banks in Spain, and on firms, as well as macroeconomic and geographic information to create a unique data set that makes it possible to study the effects of the interplay of bank deregulation and governance on risk taking. The bank data comprises financial statements, the number and location of branches, corporate governance and ownership variables as well as information on home markets of savings banks. This information is available for all financial institutions in Spain from 1992 to 2010. The Spanish Association of Private Banks (AEB)

[10] The total number of savings banks in Spain is expected to decrease from 46 before the crisis to approximately 15 by the end of the restructuring process.

[11] The voting rights of local governments are often fragmented since municipalities are ruled by different parties, which makes coordination hard lowering the potential influence of this stakeholder group.

provides the data on commercial banks, whereas information on savings banks was 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 shows the evolution of commercial and savings bank branches (Panel A) and their lending volume (Panel B).

(Insert Figure 1 here)

Spanish savings banks have substantially expanded in terms of bank branches and lending volume, while commercial banks exhibit a decline in bank branches and lower growth in their lending volume. Panel B highlights that the commercial lending of savings banks in general, and their lending to real estate and construction firms in particular, has increased more heavily than that of the Spanish commercial banks.

During the sample period 1997-2007, the cajas were in the last phase of their geographic expansion to other provinces within Spain. In unreported analysis of the determinants of the expansion we find that cajas are more likely to expand to Madrid, adjacent provinces and regions, provinces with a higher number of inhabitants and a higher GDP per capita, and to provinces in which commercial banks exhibit a bigger market share. We also find that the likelihood and speed of expansion is significantly higher for larger caja banks and when regional governments have a stake in the board of directors.

The firm data come from the SABI database (Sistema de Análisis de Balances Ibéricos) which is based on the public commercial registry 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 33,122 firms during 1997-2007 (176,197 firm-year observations).[12] The information on the firms' bank relationships allows us to match the firm data with the extensive bank data over a period of eleven calendar years.

We complete the sample with a variety of macroeconomic variables (e.g., province population, GDP per capita, and industry composition), distance measures (e.g., distances in kilometers, same-region indicators), and measures of local bank competition (Hirschman-Herfindahl Index (HHI)). Table 1 presents summary statistics.

(Insert Table 1 here)

3. Empirical Analysis

3.1 Results on risk taking, bank governance and political influence

We now examine the characteristics of firms that start borrowing from savings banks from other provinces during the period of expansion. This analysis sheds light on the risk taking behavior of savings banks that expand into new markets and how it relates to governance characteristics of these banks. All results in this section refer to ex ante risk taking, while we report further supportive evidence on ex post risk in Section 5.

We start with a univariate analysis comparing financial statement information and other variables for firms that never borrow from savings banks from other provinces (but instead borrow from any other type of bank, i.e., commercial banks, cooperative banks, and home market savings banks) with firms that start a relationship with savings banks from other provinces. For the latter type of firms we calculate the financial ratios at different points in time, e.g., before and after the start of the new banking relationship and the average over all of

[12] Our baseline dataset comprises only firms with audited financial statements. We exclude firms from the industries "construction" and "real estate development" in our baseline dataset to avoid that our effects are driven by the burst of the real estate bubble in Spain. We revisit this issue in Section 5.

the years that these firms are in the sample. This decomposition allows us to identify 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.[13] Moreover, 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 by the regional government on the board of directors, political party affiliation of the government of the borrower region, and the savings bank's home region). Table 2 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 2 here)

The univariate analysis provides a variety of interesting results. Most important, Panel A of Table 2 shows that firms that start a relationship with savings banks from other 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 worse for these firms than for the control group. These differences are not only statistically but also economically significant. For example, the ZSCORE (EQTA, the ratio of equity over total assets) is 2.07 (37.08%) for the control group (in the column "Never"), and 1.78 (32.40%) for firms starting a relationship with savings banks from other provinces (in the column "Ex

[13] The way we measure ex ante default risk is consistent with banks' actual decision making in the loan approval process: The ZSCORE 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.

ante"). It can also be seen that these firms are less likely to work with a big audit company than the control group (BIGAUDIT). The "Ex post" column indicates a further deterioration in the financial ratios and an increase in default risk. The latter finding is not surprising since these firms, ex post, increase their total assets substantially by increasing their total bank debt (not reported in Table 2). This leads to a deterioration of ratios such as EQTA and ROA since the denominator has increased. To control for this mechanical effect, we will focus on the ex ante financial ratios and risk measures. Also interestingly we observe an increase in the number of banking relationships, indicating that firms that start a relationship with a savings bank from another province are more likely to add new relationships than to replace 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.

To investigate whether governance characteristics of savings banks are associated with ex ante borrower risk in the new markets, we calculate the same firm variables conditional on the governance variables of their future lenders. We find 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 does not have a stake. The ZSCORE is 1.83 for firms starting a relationship with a savings bank in which the regional government has no stake, but 1.73 for firms that start borrowing from savings banks that are influenced by the regional government. This finding is consistent with results from an unreported analysis of the determinants of the savings banks' expansion. A plausible explanation is that politicians from the regional government, provided that they have a stake in the savings bank, influence the bank's decision where and how to expand. The observed increase in risk taking may result from this decision, in which ex ante default risk is

underweighted in the loan underwriting process. Interestingly, we also find that the political party affiliation of the government in the home region of the bank and the region to which the bank expands has an additional impact on risk taking. The ZSCORE of these firms is 1.66, which is substantially lower than the ZSCORE the control group (2.07).

We repeat the same analysis for a restricted sample that includes firms that exclusively borrow from cajas. 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 their new markets. A comparison of the "Never"-columns in Panel A and Panel B of Table 2 indicates that firms that exclusively borrow from savings banks tend to be riskier than firms borrowing from other banks or a mix of different banks. This finding is consistent with the study of Jiménez and Saurina (2004) who analyze loan data from the Bank of Spain credit register. One explanation for this observation is that savings banks have traditionally been strong in deposit taking and retail lending, especially mortgage lending, but have little experience and expertise in commercial lending, which increased considerably during the period of geographic expansion. Most important in our context, we find that the main results on borrower default risk reported in Panel A are confirmed in Panel B of Table 2. Firms that start a relationship with savings banks from other provinces exhibit a significantly higher ex ante default risk (ZSCORE=1.72) than those firms borrowing from savings banks in their home market (ZSCORE=1.90). The effect becomes stronger if the savings bank is influenced by the regional government. In this case, borrowers exhibit a ZSCORE of 1.58. 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 do find evidence that suggests that governance characteristics affect the risk taking. 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.

We continue with a multivariate analysis of savings bank risk taking. For this purpose, we estimate five multivariate logit regression models (Model 1, Model 2a, Model 3a, Model 2b and Model 3b). Model 1 is a logit model that analyzes which firm characteristics influence the probability of having a relationship with a savings bank from another province (NEW=1, 0 otherwise). Model 2a is a multinomial logit model to examine the 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 3a is also a multinomial logit model to analyze the 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). Models 2b and 3b are logit models on subsamples including only firms for which NEW_RG and NEW_RG_P are equal to zero or one respectively. These models indicate whether the differential effects at the second (the stake of the regional government) and third stage (the government in the borrower's and the bank's regions comes from the same political party) are significant. Consistent with the empirical measurement approach applied in Table 2 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). This specification also ensures that our analysis focuses on the lending decision of banks. Table 3 summarizes the results.

(Insert Table 3 here)

The multivariate analysis confirms the findings of 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). Thus, firms that start a relationship with a savings banks from another province (NEW=1) are ex ante riskier. Model 2a confirms that a lower Z-Score increases the probability of having a relationship with savings banks from other provinces. However, the magnitude of the coefficient of ZSCORE substantially changes from -0.069 to -0.115 for the probability of having a relationship with a savings bank in which the regional government has a stake (NEW_RG=1, middle part of Panel A). In Model 3a we find that there is an additional significant impact, when savings banks expand to regions that are ruled by governments from the same political party (NEW_RG_P=1, lower part of Panel A). The coefficient of ZSCORE now is -0.140. Turning to Panel B of Table 3, Model 2b confirms that the additional impact due a stake of the regional government is highly significant. However, in Model 3b the political party effect on risk taking in new markets is only marginally significant (p-val. 0.102), which is consistent with Table 2, Panel B.

The above analysis provides clear and consistent evidence that supports the view that the geographic expansion of savings banks in Spain is associated with an increase in risk taking. This result becomes stronger when regional governments have a stake in these banks and

when the expansion occurs in regions that are ruled by the same political party as the home region of the savings bank.

3.2 Further evidence on political influence

As mentioned in Section 2.1, by virtue of a national law enacted in 1985, the municipalities in the home regions of the cajas were allocated 40% of the voting rights on their boards of directors. Because these municipalities were ruled by different political parties, their voting rights were often fragmented, resulting in rather low political influence on decision making. After the aforementioned national law was declared unconstitutional by a Spanish Court, some regions decided to allocate voting rights to the regional governments at the expense of the municipalities' voting rights, while others decided to keep the old distribution of voting rights, preserving the power of insiders (i.e., directors and employees). As a result, in approximately 50% of the cajas, one single regional government (i.e., the one in the region in which the savings bank's head office was located) had a stake in the board of directors, holding an average 20% of total voting rights during the sample period. We hypothesize that exactly those cajas were subject to more political influence because the voting rights of politicians became more concentrated. Furthermore, politicians of regional governments often become active in the Spanish federal government or national parliament at a later stage in their career, which suggests that their ambitions go beyond their region.

To empirically test this hypothesis, we examine the sensitivity of both CEO and Chairman turnover to the percentage of voting rights assigned to the regional governments to ascertain whether regional governments tend to intervene more often in the governance of their banks. Table 4 reports the results of our analysis of chairmen and CEOs appointed to cajas boards from 1992 to 2007.

(Insert Table 4 here)

Panel A of Table 4 shows that the average number of CEOs significantly decreases if the regional governments are not involved in a savings bank's management. We note a decrease from 3.19 to 2.16. The number of different chairmen is also lower for the cajas without regional politicians on the board, 3.70 vs. 3.16, although the difference is no longer significant. This difference between CEO and Chairman turnover could indicate that CEOs are more critical in executing strategic changes in bank risk-taking while the role of Chairman may be more of a figurehead. Overall these results are consistent with the view that the allocation of voting rights to regional governments is associated with more political influence in the sense of more active governance. By itself, higher turnover at regionally-controlled banks does not necessarily indicate inferior governance. However, given that we previously demonstrated that regional government involvement is associated with increased risk taking, this political influence does not appear to be constructive – but, rather, just the opposite.

Panel B of Table 4 provides further evidence on political influence in a multivariate setting. We now report the regression results of six different logit models, in which we use CEO turnover and chairman turnover as dependent variables, respectively. The models are estimated using the whole sample (Models 1 and 4) and two subsamples of cajas in which regional governments have and have not a stake in the board of directors (Models 2-3 and 5-6). The independent variables are $REGION_DUM_{it}$, which is a dummy variable that equals one if a regional government has a stake in the board of directors of savings bank i in year t, and zero otherwise; POL_CHANGE_{it} is a dummy variable which equals one if the political affiliation of the regional government involved in the management of savings bank i changes in year t, and zero otherwise; $INC_EXPANSION_i$ is the annual increase in the ratio of branches in new markets to the total number of branches of savings bank i; and zero

otherwise; and ROA and LNTA refer to the return on assets and the logarithm of total assets, respectively. All models include year fixed effects and p-values are robust to heteroskedasticity and clustering effects on savings banks. The data come from 51 Spanish cajas spanning the years 1992 to 2007.

We find that the estimated coefficient of the variable REGION_DUM is positive and statistically significant, suggesting that CEO and chairman turnover is more likely to occur if the regional governments are involved in the management of the cajas. However, the second political variable in our models, POL_CHANGE, is only significant for chairman turnover. Typically, chairmen are replaced in the same year in which a change in the political affiliation of the regional government takes place. Consistent with the idea that chairmen are more likely to be figureheads, while the CEO has the key influence on the bank management, the estimated coefficients of INC_EXPANSION and ROA are negative and significant only in the CEO turnover specification. Furthermore, the sensitivity of CEO turnover to both ROA and the speed of the geographic expansion dramatically increases when regional governments have a stake in the board of directors. These results suggest that political influence is associated with a growth strategy focused on the expansion of the cajas beyond the boundaries of their home markets.

To summarize, our results on executive turnover and ex ante risk taking in Section 3.1 together indicate that during our sample period the Spanish cajas were subject to political influence that encouraged geographic expansion and risk taking, especially when regional governments had voting rights in the cajas.

3.3 Robustness tests

We conduct three additional tests to confirm that our results are robust and not the product of particular choices of samples, methods, or model specifications (results not shown).

First, we study the sensitivity of previous results by repeating the main analysis for the first and second half of the sample period, for Madrid and Barcelona (44% 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 (42% of entire sample). Analyzing data from the periods 1997-2002 and 2003-2007 separately supports our finding that savings banks lend to more risky borrowers in the new provinces. Comparing the two 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 savings banks from another province are ex ante 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). If we repeat all tests for a balanced panel with either at least eight yearly observations per firm or a complete time series per firm leads to the same conclusions obtained with the entire (unbalanced) sample.

Second, since there is some indication in the literature that Spanish savings banks 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 ownership dispersion does not provide an explanation for why these banks engaged in increased risk taking.

Third, instead of considering commercial banks as a control group we now compare the risk taking of savings banks with the risk taking of foreign banks in Spain. The latter also follow a strategy of geographic expansion and entry new markets, 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 logit models. These results are consistent with our previous findings and indicate that the increase in risk taking of savings banks is related to their governance structure and the influence of politicians.

4. Tests of Alternative Explanations

4.1 Motives for expansion

An alternative motive for the geographic expansion might be that savings banks were forced to hold inefficient, non-diversified loan portfolios during the era prior to branching deregulation. Once branching restrictions were removed, the savings banks had 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 extended to each industry in and out of their home markets relative to the total volume of loans granted inside

and outside their home markets respectively (NEW_LOANS and HOME_LOANS). We calculate the difference between both variables for each savings bank-industry-year combination during the period 1997-2007 (DIFF_LOANS). Then, we regress this variable on the industry structure of commercial lending portfolios in the markets to which the savings banks expand (ADAPT), the industry structure of the loans that all commercial banks and other savings banks extend in savings banks' home markets (SPEC), and the percentage of loans allocated to industry j in year t by the BBVA, the biggest Spanish commercial bank in our sample according to the number of bank relationships (DIVERS).

If savings banks expand their lending activities to better diversify their lending portfolio, the coefficient of the variable DIVERS will be positive and significant. If the savings banks specialize in the industries they have been lending to at home, the coefficient of the variable SPEC will be significantly positive. If the savings banks simply adapt to the industry structure of the new markets, the coefficient of the variable ADAPT will be significantly positive. Table 5 reports results of different regression models, in which the explanatory variables are first included as single regressors (Models 1-3) and then combined in one multivariate regression model (Model 4).

(Insert Table 5 here)

The results from our multivariate regression allow us to rule out diversification as a motive for the expansion. The coefficient of variable DIVERS is negative but not statistically significant, suggesting that after the removal of geographic barriers the industry structure of the savings banks' lending portfolio did not converge to that of a fully diversified portfolio. The coefficient of the variable ADAPT is positive and highly significant in the univariate and

multivariate specification, while the coefficient of SPEC is negative and significant in the multivariate model.

In summary, the evidence provided in Table 5 supports the view that savings banks adapt to the industry structure of the new markets. We interpret this result in the following way. Either diversification is not a motive for the expansion of savings banks or they are not successful in implementing a diversification strategy. We believe that the lack of evidence for diversification is not surprising because the industry structure of contiguous provinces in Spain does not differ much. Thus, diversification benefits from a geographic expansion should be rather limited. Instead, savings banks tend to follow a growth strategy in commercial lending, which is associated with an increase in the ex ante default risk of their loan portfolios.

4.2 Risk taking and market entry costs

An alternative explanation for the increase in savings banks' ex ante risk taking is the entry in new markets. Our finding on risk taking might not be due to political influence and/or weak governance of the expanding savings banks but simply the cost of entering new markets (e.g., Broecker 1990; Shaffer 1998; Bofondi and Gobbi 2006). Although we already compared the risk taking of savings banks with that of foreign banks we now provide a more detailed investigation of the market entry argument.

We believe that this explanation is unlikely to hold in our setting because the firms exhibit a higher ex ante *observable* default risk. Despite observing this higher ex ante risk savings banks are still willing to extend new loans to these firms (and we show in Section 4.4 that the savings banks do not charge higher loan rates or require more collateral). Therefore, our result on the increase in savings banks' risk taking cannot be explained with adverse selection costs or the winner's curse phenomenon.

Even if we assume for the moment that the increase in borrower risk does represent market entry costs, these costs should fade over time because these banks will gradually learn the true credit quality of their borrowers and adjust their lending behavior in their new markets. To test this hypothesis, we examine the ex ante default risk of firms, measured by the ZSCORE, as a function of the difference between the start year of their credit relationship with their savings bank from another province and that same bank's entry year in the firm's province. This difference can be interpreted as the time since market entry. Figure 2 displays the results.

(Insert Figure 2 here)

Panel A of Figure 2 shows that firms that start borrowing from one savings bank from another province (treatment group) exhibit a lower ZSCORE in the year when they start such a bank relationship than firms (from the same province and year) that never borrow from savings banks from other provinces (control group). More important, the higher default risk of these firms does not systematically relate to the difference between the start of the bank relationship and the savings bank's entry year in the province. In other words, firms' default risk is higher independent of whether the savings bank has started lending to these firms in the year when it opened branches in the firm's province for the first time, or before, or afterwards. Our results are also robust to considering data from the year before the firm starts borrowing from a savings bank from another province. We conclude that the increase in risk taking cannot be interpreted as market entry costs since the effect does not fade out. We formally test this conjecture by regressing the difference between the z-scores of the treatment and control group on the difference between the firms' start year and the savings banks' entry year. We find that there is no significant relationship between these two variables (coefficient: 0.0085;

p-value based on robust standard errors: 0.313, R2=0.0003), inconsistent with the market entry cost hypothesis. Panel B of Figure 2 shows the findings from a similar analysis conducted on a larger sample. We now consider all firm-year observations and firms that start borrowing from at least one savings bank from other provinces (not only the first year and not only firms that borrow from exactly one savings bank from another province, as in Panel A). Essentially, we obtain the same graphical and regression result and thus rule out that the increase in risk taking can be explained with market entry costs.

The above findings are also consistent with the fact that the Spanish savings bank expansion started in the late 1980s, while our firm data covers only the final phase of the expansion (1997-2007). Therefore, potential market entry costs should have faded out before the beginning of our sample period and thus cannot serve as rationale for the persistently high level of borrower risk taken by the cajas.

4.3 Risk taking and bank competition

Another alternative explanation for our finding on savings banks' risk taking could be that the geographic deregulation of the savings banks sector has gradually increased bank competition, which increased the incentives for risk taking of all banks. The effect could be country-wide or limited to those regions where bank competition has increased most strongly. Under this view we should be able to provide evidence that indicates a "race to the bottom" in commercial lending of all banks (i.e., an increase in risk taking by savings banks and private commercial banks). Consequently, the risk taking effect would not be unique to the savings banks, their governance, and political influence. Such reasoning implies that the difference in the ex ante risk of firms that borrow from the expanding cajas and privately owned commercial banks should disappear when bank competition is particularly high.

To investigate the influence of bank competition on bank risk taking during our sample period we employ the Hirschman-Herfindahl Index (HHI), which is a standard measure of bank competition. A low value of the HHI indicates low concentration in the local banking market and high competition. For each province-year combination, we calculate the normalized Hirschman-Herfindahl Index based on the number of branches of each bank.[14] The mean HHI for the full sample is 0.10 (median 0.09), ranging from a minimum of 0.05 to a maximum of 0.29. We then split the full sample based on the HHI median in two subsamples with relatively low and high bank competition and repeat our baseline analysis (see Table 2). Using the mean HHI per province or the change in the HHI from 1997 to 2007 per province as time-invariant classification variables leads similar findings. Table 6 displays the results.

(Insert Table 6 here)

The analysis yields a clear result. For both subsamples (low and high bank competition) we find that firms that start borrowing from savings banks from other provinces are riskier than those that never borrow from these banks, especially when regional governments have a stake in the expanding savings banks, and when the political party that rules the home and target province is the same. For instance, a comparison of the ZSCORE of firms that never start borrowing from expanding cajas (2.07) and those who actually do (1.76) in the low bank competition subsample (Panel A) indicates a large and highly significant difference. A similar result is found for the high bank competition subsample (Panel B); the corresponding values

[14] The normalized HHI is defined as follows:

$$HHI_{pt} = \frac{\sum_{i=1}^{N_{pt}} BR_{ipt} - \frac{1}{N_{pt}}}{1 - \frac{1}{N_{pt}}}$$

where *p* and *t* refer to province and year, respectively; N_{pt} denotes the number of banks operating in province *p* and year *t*; and finally BR_{ipt} is the market share of bank *i* in province p and year t in terms of number of branches. The normalization ensures that the indices are comparable between provinces and over time.

of the ZSCORE are 2.06 and 1.80. For all other firm characteristics we see that significant differences as well. We also re-estimated the multinomial regression models from Table 3 and confirm the results for the low and high competition subsamples.

Hence, our main finding on savings banks' risk taking cannot be explained with bank competition. We do not find evidence for a general risk taking effect, which is also consistent with the decrease in commercial banks' branches, their less pronounced loan growth and relatively high and stable profitability during our sample period.

4.4 The number of bank relationships and loan terms

We now investigate whether the previously found higher ex ante risk can be observed for all firms that increase the number of relationships. In particular, we examine whether the increased 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 2 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 7 reports the results.

(Insert Table 7 here)

Essentially, we obtain two main results. First, most of the financial ratios of firms that add relationships with commercial banks and cooperative banks are not ex ante statistically

different from firms that exhibit a constant number of bank relationships during the entire sample period (not reported in Table 7). Second and more important, firms that start a relationship with savings banks from other provinces are significantly riskier (ZSCORE=1.78) than their counterparts borrowing from other banks (ZSCORE=2.00; see the far right column of Table 7). Thus, what matters is the type of the bank (i.e., whether it is a savings bank), not the mere fact that firms increase their number of bank relationships. This result confirms that governance characteristics and political influence matter for the risk taking behavior of the cajas during the period of expansion.

It is also important to consider whether the increased risk taking of savings banks in commercial lending during the period of expansion was compensated by higher loan rates and/or mitigated by higher collateral requirements. With respect to loan pricing there may be two off-setting effects. It is possible that the savings banks that enter new markets offer lower loan rates to firms to gain market share (and, as a side effect, attract firms that have been denied loans by in-market banks). At the same time, one might expect that savings banks would charge higher loan rates, recognizing and/or anticipating higher ex ante default risk in these new markets. Accordingly, the ultimate effect on loan rates is ambiguous. To investigate this issue empirically, we examine three firm-year specific proxies for loan rates in more detail (the interest rate coverage ratio INTCOV defined as EBIT over interest paid; 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[15]). We find that firms that start a relationship with savings from other provinces experience a significant decrease in AVINT (-85 bps, Wilcoxon rank sum test p-val. < 0.001) and SPREAD (-30 bps, p-val. < 0.001) and no significant change in INTCOV when we compare the data from the years before and after

[15] It is important to control for the dynamics of the risk-free interest rate (yield of 10-year Spanish government bonds) because it declined considerably during the sample period (from 6.40% in 1997 to 4.31% in 2007). The variable medians assume reasonable values and amount to AVINT=6.57%, INTCOV=5.44, and SPREAD=200.16 bps.

they have started such a new relationship. These findings provide clear support for the first effect: savings banks that expand to new provinces charge lower loan rates to attract new customers and finally end up with riskier borrowers.

Another possibility that requires investigation is collateral which savings banks could require from the borrowers in their new markets to offset 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. However, this is mainly due to the fact that savings banks have historically focused on mortgage lending to households (and only later to firms). 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, in general, play an important role in commercial lending. Given the overall low importance of collateral in commercial lending in Spain, it is very unlikely that savings banks can compensate for the higher ex ante default risk by obtaining more collateral from their new market borrowers since these firms' new relationships are typically the third or fourth bank relationship. As we show in Table 2 the median of the variable NREL (number of bank relationships) increases from 2 (ex ante) to 4 (ex post). These bank relationships are added to existing ones, making it difficult for the expanding cajas to get senior collateral because, if at all, firms pledge collateral to their first or second lender. This is particularly true for mortgages, accounts receivable 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 remains why these firms have added a new bank relationship instead of borrowing from their former banks? As we argue above, existing banks were apparently not willing to lend additional money given that firms only benefit from adding a new bank relationship if credit availability increases, loan rates are lowered, and/or

collateral requirements are lowered. Even if loans to some of the borrowers in the new markets are 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. Furthermore, there is evidence that the probability of default and the recovery rate on defaulted banks loans are negatively correlated (e.g., Grunert and Weber 2009). This point became particularly important for the risk associated with lending to construction companies and real estate companies in Spain. We will revisit this issue in Section 5.

We conclude that the higher risk associated with the savings bank expansion is not due to the fact that firms increase their number of bank relationships. We also find no evidence that savings banks compensate the higher ex ante risk with higher loan rates or higher collateral requirements.

5. Evidence on Ex Post Risk

A question that arises at this stage of the analysis is whether the significant increase in ex ante risk at the cajas has also resulted in higher ex post risk. There are several pieces of evidence that confirm that this is indeed the case.

First, the European Union's Committee of European Banking Supervisors initiated stress tests of large European banks that were considered as systemically important. Of the eight European banks that failed to meet the capital requirements in the mid-2011 stress tests, four were Spanish savings banks and one was a subsidiary of a savings bank, whereas the biggest Spanish private banks performed well. In the mid-2010 stress test scenarios, seven European banks failed to pass the test and five of these were Spanish cajas (see Financial Times, July 24-25, 2010 and July 17, 2011).

Second, a number of caja banks became financially distressed during the financial crisis of 2008-2009 and could only be rescued with capital infusions from the bank restructuring fund

(FROB) of the Bank of Spain and through mergers with healthier savings banks. The stated reasons for these distress events were losses associated with the global financial crisis, the burst of the real estate boom in Spain, and the fast geographic expansion of the caja banks over the past two decades.

Third, and more specific to our analysis, we examine data on borrower defaults (firms' bankruptcy filings) during the period 1997-2009 to study in more detail whether there is a relation between savings banks' geographic expansion, their governance, and ex post risk. Analyzing bankruptcy filings has the advantage that such micro data is reliable, objective, and less likely to be distorted by financial reporting standards and accounting rules.[16] We also exploit the geographic dispersion of firms' bankruptcy filings, which can not be done by analyzing bank non-performing loans and loan loss provisions because these are not disaggregated by lending segment and province. We analyze firm default by estimating cross-sectional logit models with the likelihood of default as the dependent variable and a firm's average ZSCORE (from all years for non-defaulters and from the years prior to default for defaulters[17]), various governance and expansion characteristics of savings banks as explanatory variables, and year fixed effects. The governance and expansion characteristics are indicator variables that take the value of one if a firm starts borrowing from a savings bank from a different province (NEW), if the firms starts borrowing from a savings bank from a different province in which the regional government has no stake (NEW_NOREG), if the firms starts borrowing from a savings bank from a different province in which the regional government has a stake (NEW_REG), if the firms starts borrowing from a savings bank from a different province in which the regional government has a stake and the ruling political

[16] There are two further reasons why an analysis of loan loss provisions might not be instructive. First, banks in Spain have to comply with a dynamic loan loss provisioning rule since 2000, which aims at building up a loan loss reserve buffer in good times to provision for bad times. Thus, because of this rule, loan loss provisions did not necessarily reflect the real loan values. Second, the governance structure of savings banks and political influence during the period of expansion might have created incentives to delay the reporting of loan loss provisions and write-offs to hide potentially negative effects from the rapid expansion.

[17] We obtain similar results if we take the ZSCORE from the first year in which a firm is in our sample.

party of the borrower's and the bank' region are not the same (NEW_REG_NOP), and if the firm starts borrowing from a savings bank from a different province in which the regional government has a stake and the ruling political party of the borrower's and bank' region is the same (NEW_REG_P). Each firm enters the regression with one firm-year observation. Table 8 reports the regression results.

(Insert Table 8 here)

The results are strikingly clear. Panel A of Table 8, which reports the results for our baseline sample, shows that the coefficient of ZSCORE is highly significant and negative, indicating that our measure of ex ante risk that we used in all previous analyses is indeed related to borrower default events. The coefficient of NEW in Model 1 is significantly positive, indicating that firms that start borrowing from savings banks from other provinces exhibit a higher likelihood of default. The results for Model 2 show that the effect becomes even stronger if regional governments have a stake in the expanding savings banks (NEW_REG), while the effect disappears if regional governments have no stake (NEW_NOREG). The results for Model 3 indicate that the effect is strongest when regional governments have a stake and the expansion happens to borrower regions that are ruled by the same political party as the savings banks home region (NEW_REG_P). The coefficient of NEW_REG_P is 0.2994 compared to a coefficient of 0.1521 of NEW in Model 1. We note that these findings on the link between savings banks governance and ex post risk are even stronger than our findings on ex ante risk, as reported in Table 2 and 3. Our results are consistent with the earlier study of Jiménez and Saurina (2004) who have analyzed the ex post risk of bank loans to Spanish firms and document that loans granted by savings banks display a higher default rate. Our findings are also in line with the broader literature on the

intertemporal growth-risk nexus in bank lending (e.g., Dell'Ariccia and Marquez (2006), Foos, Norden and Weber (2010)).

In Panel B of Table 8 we re-estimate Models 1-3 for firms from the industries "construction" and "real estate development". We did not consider these firms in any of our previous analyses (and also not in Panel A of Table 8) because our focus is on risk taking in commercial lending in general and not only on real-estate related industries. It turns out that the results in Panel B are consistent with those of Panel A but they are approximately twice as strong. These findings are consistent with evidence on risks arising from the mortgage lending the cajas (e.g., Cuñat and Garricano 2010). We note that, in addition to the burst of the housing markets and the global financial crisis, we find ample evidence that the increase in risk taking of savings banks and political influence of regional governments was particularly strong in these two industry sectors.

In summary, our analysis of ex post risk confirms our previous results, indicating a statistically and economically significant link between savings banks' expansion in commercial lending, their governance structure and risk taking behavior.

6. Conclusion

Liberalization may lead to unexpected outcomes if the behavior of formerly regulated financial institutions is affected by weaknesses in corporate governance. In other words, financial institution regulation may mitigate the negative effect of weak corporate governance on bank performance. When regulatory constraints are removed, the interaction between corporate governance and financial institution behavior may become critical. In particular, deregulation of financial institutions that are government-owned and/or controlled by politicians may unleash potentially unhealthy growth policies that are primarily driven by non value-maximizing objectives.

In this paper we study the effects of the interplay between geographic deregulation and corporate governance on the lending behavior of the government controlled sector of the Spanish banking system, the Spanish caja banks. Our principal result is that the geographic expansion of Spanish cajas is associated with a significant increase in ex ante risk taking and ex post default risk. This finding becomes substantially stronger for savings banks in which regional governments have a stake in the board of directors, for expansion into regions that are ruled by the same political party as the home region of the bank, and for firms in the real estate and construction industry. We also provide direct evidence on the link between political influence and the management of the cajas. We find that chairman and CEO turnover is significantly higher after regional elections in which the ruling party changed suggesting political involvement in the cajas' strategic decision to expand geographically by investing in riskier loans. In various additional tests we rule out alternative explanations and confirm the robustness of our findings.

The main conclusion of our study is that deregulation of an industry in which institutions are subject to weaknesses in corporate governance and political influence does not necessarily lead to the expected positive outcomes.

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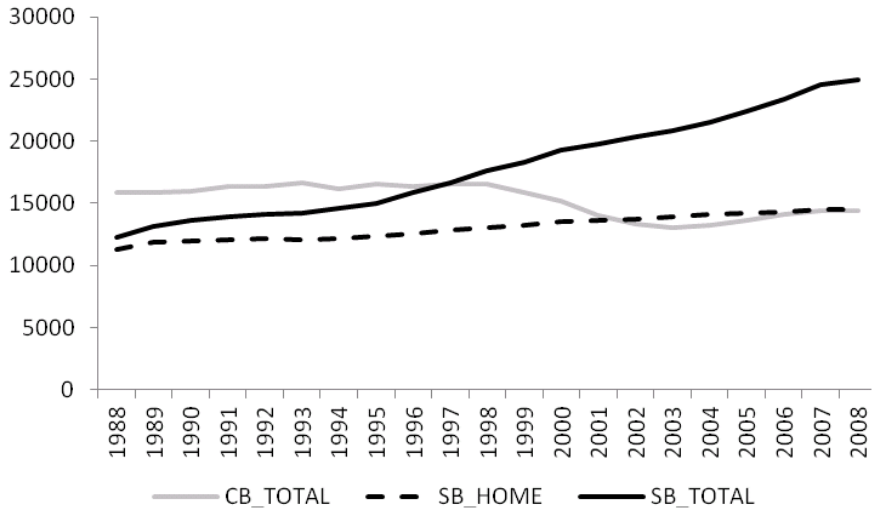
Figure 1

Evolution of bank branches and bank lending in Spain from 1988 to 2010

Panel A: Number of bank branches

This figure shows the evolution of the number of branches of commercial banks (CB_TOTAL) and savings banks (SB_TOTAL). SB_HOME refers to the number of branches of savings banks in their home markets.



Panel B: Bank lending

This figure shows the evolution of loans extended by savings banks (SB) and commercial banks (CB) to real estate and construction firms (RE + C) and other firms from 1988 to 2010. The absolute numbers are converted into an index that equals 100 in the year 1988.

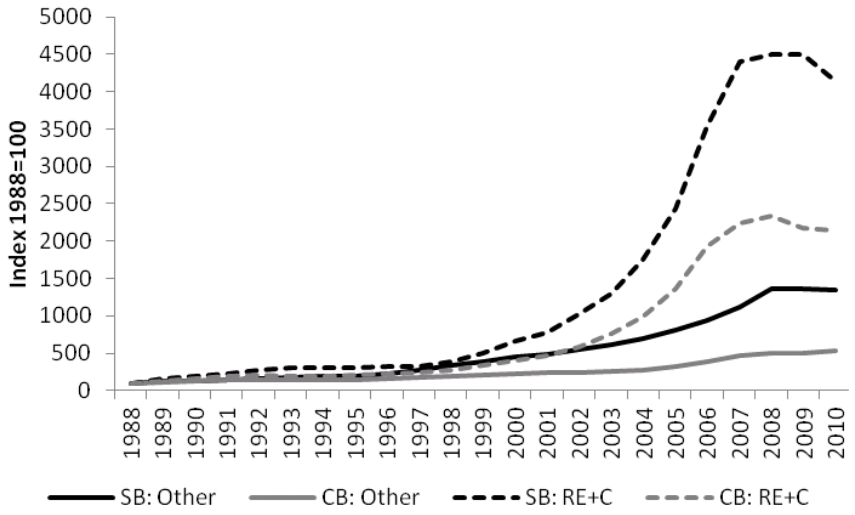
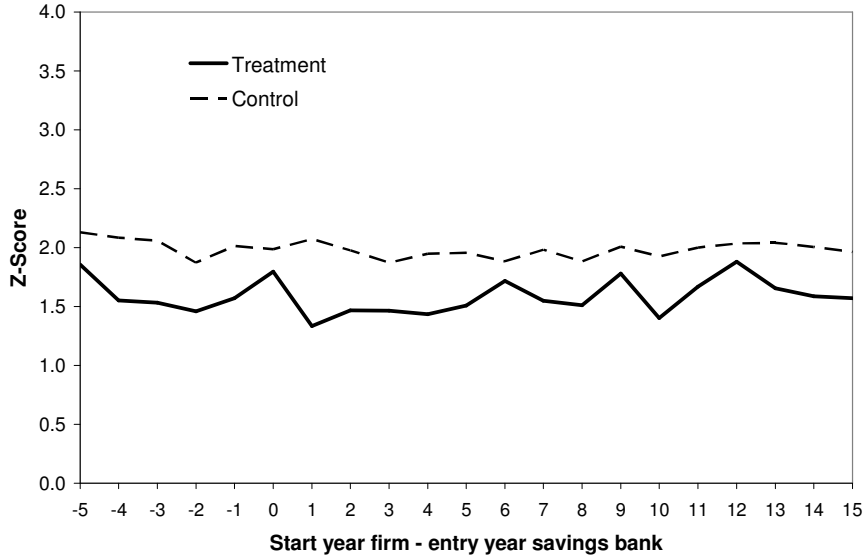


Figure 2

Savings banks' risk taking behavior and time since market entry

Panel A: Treatment vs. control group (single relationship)

The bold black line (Treatment) plots the cross-sectional median z-score from the first year in which firms start borrowing from one savings bank from another province. We consider only firms that borrow from *exactly one* savings bank from another province and other banks. The broken line (Control) plots the cross-sectional median z-score of all firms from the same province and calendar year that never borrow from savings banks from other provinces. The x-axis indicates the difference between the firm's start year of a bank relationship with a savings bank from another province and the same bank's entry year with bank branches in the firm's province. A negative difference is reported for firms that borrow from the head offices of savings banks from other provinces before the latter have entered the firm's province with bank branches. The figure is based on 3,512 firm-year observations from the period 1997-2007.



Panel B: Treatment vs. control group (single and multiple relationships)

The bold black line (Treatment) plots the cross-sectional median of the Z-Score from all firm-year observations of firms that start borrowing from *at least* one savings bank from another province and other banks. The broken line (Control) plots the cross-sectional median z-score of all firms from the same province and calendar year that never borrow from savings banks from other provinces. The x-axis indicates the average of the difference between the firms' start years of bank relationships with savings banks from other provinces and these banks' entry years with bank branches in the firms' provinces. A negative difference is reported for firms that borrow from the head offices of savings banks from other provinces before the latter have entered the firm's province with bank branches. The figure is based on 4,517 firm-year observations from the period 1997-2007.

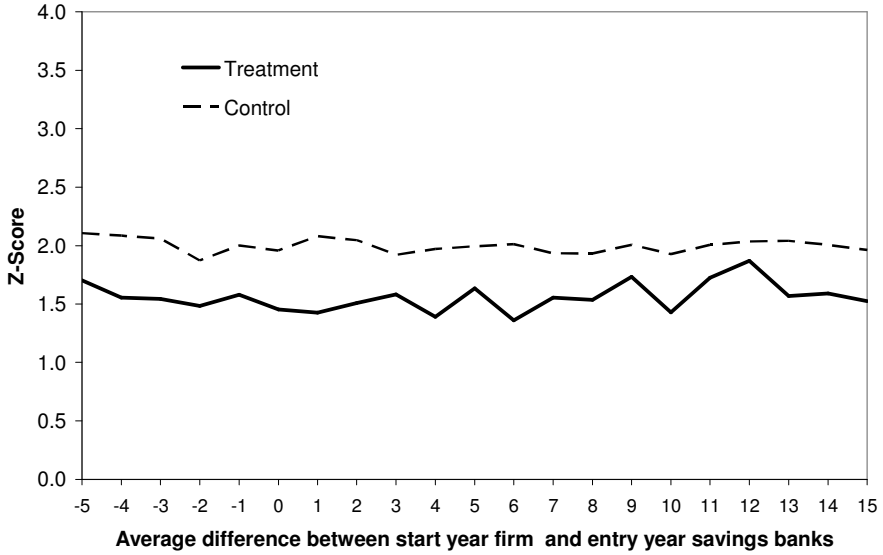


Table 1

Summary statistics

Panel A reports accounting and banking information for 33,122 firms (176,197 firm-year observations) during the period 1997-2007. Panel B reports data on all banks in Spain (1,847 bank-year observations) and Panel C summarizes information on macroeconomic, distance, and bank competition measures.

Panel A: Firm characteristics

Variables	Description	Q1	Median	Mean	Q3	N
Size and opacity						
TA	Total assets ('000 EUR)	5,063	9,130	58,586	20,774	176,197
SALES	Total sales ('000 EUR)	7,032	12,044	52,140	25,958	176,197
EMPL	Number of employees	31	60	222	128	162,171
AGE	Age of the firm (years)	12	18	21.70	28.00	176,197
BIGAUDIT	1 if firm has big auditor	0.00	0.00	0.29	1.00	151,098
Capital structure						
EQTA	Equity-to-total assets (%)	21.28	36.34	36.92	54.93	176,197
BDTA	Bank debt-to-total assets (%)	2.1	16.25	20.27	33.54	176,197
STDEBT	Short-term bank debt-to-total bank debt	41.38	76,13	67.17	99.5	148,596
Liquidity						
CASH	Cash-to-total assets	0.77	2.67	5.67	6.98	176,197
CURR	Current ratio (%)	100.91	125.18	363.74	174.11	176,197
LTASSETS	Long-term assets-to-total assets	15.54	30.89	34.53	49.49	176,197
Profitability						
PROF	Net profit ('000 EUR)	55.00	269.00	2,365.79	876.00	176,197
ROA	Return on assets (%)	0.77	3.12	3.29	7.03	176,197
ROE	Return on equity (%)	3.18	9.80	8.38	18.92	176,197
Default risk						
INTCOV	Interest coverage (%)	1.11	3.18	38.67	10.63	169,355
ZSCORE	Altman (1968)-Z-Score	1.12	1.96	3.88	3.08	141,106
Bank-firm relationships						
NREL	Number of bank relationships	1.00	2.00	2.70	4.00	176,197
COM	1 if commercial bank	1.00	1.00	0.88	1.00	176,197
SAV	1 if savings bank	0.00	0.00	0.48	1.00	176,197
COP	1 if cooperative bank	0.00	0.00	0.05	0.00	176,197

Table 1 (cont'd)

Summary Statistics

Panel B: Banks characteristics

Bank variables	All bank-year observations N=1,242				Comm. Banks N=712	SB REG-GOV N=248	SB LOC-GOV N=273	Coop. banks N=10
	Q1	Median	Mean	Q3	Median	Median	Median	Median
Size								
TA (mill. EUR)	665	2,925	11,703.1	8,321	1,310.8	6,711.0	4,7234.0	177.5
Number of branches per bank	13	123	309.8	297	26.5	256	214	13.5
Profitability								
ROA (%)	0.42	0.69	0.39	1.00	0.59	0.76	13.01	0.92
ROE (%)	6.14	11.32	8.37	15.54	7.90	13.01	13.46	7.71
Interest income / TA (%)	3.42	4.42	4.69	5.41	4.44	4.32	4.66	3.84
Asset and liability structure								
Equity / TA (%)	4.73	6.20	10.75	9.45	7.44	5.67	5.37	9.60
Deposits / TA (%)	46.49	70.10	59.64	80.63	53.98	77.93	80.69	84.99
Loans / TA (%)	44.48	63.31	57.58	75.52	54.50	70.77	66.60	70.30
Risk								
Δ Loan Loss Prov/TA (%)	0.10	0.25	0.26	0.39	0.19	0.32	0.26	0.37

Panel C: Macroeconomic, distance and competition measures

Province variables	Q1	Median	Mean	Q3	N
GDP per capita (Index: Spain=100%)	82.90	94.63	100	115.37	572
Inhabitants (Index: Spain=100%)	38.41	67.56	100	112.99	572
Inter-province distances (kilometers)	358	562	668	797	2,450
Bank competition (HHI)	0.08	0.09	0.10	0.11	572
Market share by bank type (%)					
Commercial banks					
Customers	62.93	69.63	69.86	76.85	572
Loans	55.67	63.96	63.66	72.37	572
Savings banks					
Customers	47.69	54.32	53.72	60.56	572
Loans	25.48	32.69	32.76	39.42	572
Cooperative banks					
Customers	1.42	4.58	12.30	15.34	572
Loans	0.51	1.93	3.58	4.66	572

Table 2

Univariate analysis of savings banks' risk taking

This table reports median values of total assets (TA), the equity-to-total assets ratio (EQTA), the current ratio (CURR), 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. The column "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 data from 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, comparing the cases "Never" vs. "Ex ante". The data come from 33,061 Spanish firms during the period 1997-2007.

Panel A: All firm-year observations

Variable	Never	Firms borrowing from savings banks from other provinces? Yes (NEW=1)						P-val. (Wilcoxon rank sum test) Never vs. Ex ante
		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	Average	
TA	8,758	8,757	8,765	8,749	9,375	10,446	9,961	0.106
EQTA	37.08	32.40	34.13	30.96	29.44	32.31	32.33	0.000
CURR	128.74	117.67	120.02	115.85	114.76	118.50	118.29	0.000
ROA	3.30	3.05	3.20	2.90	2.84	2.69	2.79	0.000
ZSCORE	2.07	1.78	1.83	1.73	1.66	1.71	1.73	0.000
NREL	2	2	2	2	2	4	3	0.000
BIGAUDIT	0.30	0.23	0.23	0.23	0.25	0.26	0.25	0.000
Obs.	120,625	14,172	7,072	7,100	3,175	41,127	55,299	

Panel B: Firms exclusively borrowing from savings banks

Variable	Never	Firms borrowing from savings banks from other provinces? Yes (NEW=1)						P-val. (Wilcoxon rank sum test) Never vs. Ex ante
		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	Average	
TA	6,520	6,593	6,572	6,619	6,330	7,289	7,193	0.083
EQTA	33.64	29.18	29.86	28.41	24.77	31.08	30.87	0.009
CURR	120.34	108.74	109.13	107.33	106.26	114.44	113.64	0.000
ROA	3.04	3.39	3.83	2.71	2.49	2.71	2.79	0.145
ZSCORE	1.90	1.72	1.86	1.58	1.56	1.68	1.69	0.007
NREL	1	1	1	1	1	1	1	0.120
BIGAUDIT	0.25	0.22	0.20	0.26	0.33	0.32	0.32	0.218
Obs.	9,869	406	283	123	71	4,310	4,716	

Table 3

Multivariate analysis of savings banks' risk taking

This table presents results from logit regression models for 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 2a, 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 3a, dependent variable: NEW_RG_P). Firms that *never* have a relationship with savings banks from other provinces serve as the reference category. Panel B reports a similar analysis for firms that exclusively have relationships with savings banks. 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 come from 33,061 Spanish firms during the period of 1997-2007. 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 firm characteristics.

Panel A: Multinomial logit regression analysis for all firms

	Model 1 (Logit)		Model 2a (Multinomial Logit)		Model 3a (Multinomial Logit)	
Dep. Variable:	NEW=1		NEW_RG=0		NEW_RG_P=-1	
	Coeff.	p-val.	Coeff.	p-val.	Coeff.	p-val.
$ZSCORE_t$	-0.091	0.000	-0.069	0.000	-0.069	0.000
$Ln(TA)_t$	0.046	0.015	0.030	0.258	0.030	0.258
BIGAUDIT	-0.462	0.000	-0.441	0.000	-0.441	0.000
NREL	0.111	0.000	0.066	0.001	0.066	0.001
INTERCEPT	-1.633	0.000	-2.393	0.000	-2.393	0.000
Dep. Variable:			NEW_RG=1		NEW_RG_P=0	
			Coeff.	p-val.	Coeff.	p-val.
$ZSCORE_t$			-0.115	0.000	-0.095	0.000
$Ln(TA)_t$			0.062	0.010	0.043	0.207
BIGAUDIT			-0.485	0.000	-0.532	0.000
NREL			0.151	0.000	0.175	0.000
INTERCEPT			-2.312	0.000	-2.788	0.000
Dep. Variable:					NEW_RG_P=1	
					Coeff.	p-val.
$ZSCORE_t$					-0.140	0.000
$Ln(TA)_t$					0.088	0.008
BIGAUDIT					-0.430	0.000
NREL					0.120	0.000
INTERCEPT					-3.242	0.000
Year fixed effects	Yes		Yes		Yes	
Obs.	97,513		97,513		97,513	
Adj. McFadden R^2	0.0735		0.0645		0.0594	

Panel B: Logit regression analysis for firms borrowing exclusively from savings banks

	Model 2b (Logit)		Model 3b (Logit)	
Dep. Variable:	NEW_RG=1		NEW_RG_P=1	
	Coeff.	p-val.	Coeff.	p-val.
$ZSCORE_t$	-0.042	0.027	-0.045	0.102
$Ln(TA)_t$	0.043	0.277	0.036	0.482
BIGAUDIT	-0.076	0.461	0.120	0.385
NREL	0.066	0.004	-0.050	0.085
INTERCEPT	0.034	0.922	-0.422	0.363
Year fixed effects	Yes		Yes	
Obs.	12,484		6,276	
Adj. McFadden R^2	0.0235		0.0057	

Table 4

Analysis of CEO and chairman turnover at savings banks

Panel A: Number of different chairmen and CEOs

Panel A reports the number of chairmen (CHAIR_N) and CEOs (CEO_N) appointed to the board of directors of 51 Spanish savings banks from 1992 to 2007. REG_GOV refers to the savings banks in which the regional governments have a stake in the board of directors, while LOC_GOV refers to those in which only the local governments have a stake. Differences in medians and means between CHAIR_N and CEO_N for REG_GOV and LOC_GOV are reported with p-values in parentheses.

	REG_GOV (N=26)		LOC_GOV (N=25)		Difference	
	Median	Mean	Median	Mean	Median	Mean
CHAIR_N	3.00	3.70	3.00	3.16	0.00 (0.37)	0.54 (0.16)
CEO_N	3.00	3.19	2.00	2.16	1.00 (0.09)	1.03 (0.00)
Difference	0.00 (0.15)	0.51 (0.15)	1.00 (0.02)	1.00 (0.00)		

Panel B: CEO and Chairman turnover

Panel B reports the estimation results from a logit model. The dependent variable, $CHAIR_TURNOVER_{it}$ ($CEO_TURNOVER_{it}$) equals one if a new chairman (CEO) is appointed to the board of savings bank *i* in year t, and zero otherwise. Independent variables are: $REGION_DUM_{it}$ equals one if a regional government has a stake in the board of directors of savings bank *i* in year *t*, and zero otherwise; POL_CHANGE_{it} equals one if the political affiliation of the regional government that has a stake in savings bank *i* changes in year *t*, and zero otherwise; $INC_EXPANSION_i$ is the annual increase in the ratio of branches in new markets to the total number of branches of savings bank *i*; and finally ROA and LN_TA refer to return on assets and the logarithm of total assets. P-values are robust to heteroskedasticity and savings bank clustering effects. The data come from 51 savings banks during the period 1992-2007.

Dep. Variable		CHAIR_TURNOVER						CEO_TURNOVER					
	Pred. sign	Model 1 (Full sample)		Model 2 (REGION_DUM=1)		Model 3 (REGION_DUM=0)		Model 4 (Full sample)		Model 5 (REGION_DUM=1)		Model 6 (REGION_DUM=0)	
		Coeff.	p-val.	Coeff.	p-val.	Coeff.	p-val.	Coeff.	p-val.	Coeff.	p-val.	Coeff.	p-val.
INTERCEPT		-1.423	0.501	2.028	0.496	-3.246	0.186	-0.429	0.845	1.098	0.630	-2.067	0.508
REGION_DUM	(+)	0.863	0.012					0.588	0.037				
POL_CHANGE	(+)	1.498	0.000	2.161	0.024	0.997	0.020	-1.081	0.130	-0.400	0.581	-0.892	0.384
INC_EXPANSION	(-)	-5.170	0.441	-2.982	0.753	-15.16	0.213	-10.86	0.099	-19.08	0.050	-6.987	0.547
ROA	(-)	-0.453	0.279	-0.870	0.335	-0.146	0.730	-1.497	0.002	-2.451	0.009	-0.945	0.111
LN_TA		-0.040	0.763	-0.154	0.426	0.111	0.156	-0.050	0.685	-0.102	0.455	0.006	0.973
Year fixed effects		Yes		Yes		Yes		Yes		Yes		Yes	
Obs.		686		270		379		677		246		348	
Adj. McFadden R^2		0.066		0.082		0.055		0.073		0.077		0.043	

Table 5

Analysis of the industry composition of savings banks' loan portfolios

This table reports estimation results for the industry composition of savings banks' loan portfolios. The dependent variable, $DIFF_LOANS_{ijt}$, is the difference between NEW_LOANS_{ijt} and $HOME_LOANS_{ijt}$, where NEW_LOANS_{ijt} is ratio of the out-of-the-home-market loans extended by the savings bank *i*, in year *t* and industry *j* to the total amount of loans granted in the provinces not included in its home market; and $HOME_LOANS_{ijt}$ is ratio of the home-market loans extended by the savings bank *i*, in year *t* and industry *j* to the total amount of loans granted in the provinces belonging to its home market. $DIVERS_{jt}$ is the percentage of loans allocated to industry *j* in year *t* by the BBVA, the biggest commercial bank in our sample according to the number of bank relationships. $ADAPT_{ijt}$ refers to the percentage of loans allocated in year *t* to industry *j* by commercial banks and other savings banks in the provinces where savings bank *i* is expanding., $SPEC_{ijt}$ is the percentage of loans allocated in year *t* to industry *j* by commercial banks and other savings banks in the provinces belonging to the home market of savings bank *i*. P-values are robust to heteroscedasticity and savings bank-industry clustering effects. The data come from 47 savings banks during the period 1997-2007.

Dep. Var.:	Pred.	Model 1		Model 2		Model 3		Model 4	
DIFF_LOANS	signs	Coeff.	p-val.	Coeff.	p-val.	Coeff.	p-val.	Coeff.	p-val.
INTERCEPT		-0.0028	0.000	-0.0010	0.235	0.0008	0.000	-0.0016	0.024
ADAPT	(+)	0.1708	0.000					0.2030	0.000
DIVERS	(+)			0.0575	0.066			-0.0130	0.650
SPEC	(+)					-0.0485	0.212	-0.0911	0.028
Obs.		30,840		30,840		30,840		30,840	
Adj. R^2		0.0142		0.0013		0.0015		0.0193	

Table 6

Univariate analysis of savings banks' risk taking

Panel A reports the results for the subsample with low bank competition, and Panel A reports the corresponding results for the subsample with high bank competition. Bank competition is measured based on the Hirschman-Herfindahl Index (HHI) of bank branches per province-year combination. The table shows median values of total assets (TA), the equity-to-total assets ratio (EQTA), the current ratio (CURR), 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. The column "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 data from 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, comparing the cases "Never" vs. "Ex ante". The data come from 33,061 Spanish firms during the period 1997-2007.

Panel A: Low bank competition

Variable	Never	Firms borrowing from savings banks from other provinces? Yes (NEW=1)						P-val. (Wilcoxon rank sum test) Never vs. Ex ante
		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	Average	
TA	8,619	8,940	8,888	8,996	9,352	10,009	9,691	0.000
EQTA	38.55	33.34	35.86	31.29	28.43	32.77	32.92	0.000
CURR	129.21	117.51	120.05	115.70	112.78	118.40	118.14	0.000
ROA	3.38	3.11	3.29	2.92	2.75	2.72	2.82	0.000
ZSCORE	2.07	1.76	1.80	1.73	1.61	1.72	1.73	0.000
NREL	2	2	2	2	2	4	3	0.000
BIGAUDIT	0.28	0.22	0.21	0.22	0.22	0.24	0.23	0.000
Obs.	59,417	7,593	3,881	3,712	1,484	20,125	27,718	

Panel A: High bank competition

Variable	Never	Firms borrowing from savings banks from other provinces? Yes (NEW=1)						P-val. (Wilcoxon rank sum test) Never vs. Ex ante
		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	Average	
TA	8,917	8,529	8,581	8,517	9,423	10,977	10,291	0.053
EQTA	35.72	31.72	32.41	30.59	30.01	31.84	31.76	0.000
CURR	128.26	117,82	119.98	115.94	116.42	118.61	118.38	0.000
ROA	3.21	2.97	3.05	2.90	2.95	2.68	2.75	0.035
ZSCORE	2.06	1.80	1.87	1.75	1.70	1.69	1.73	0.000
NREL	2	2	2	3	3	3	3	0.000
BIGAUDIT	0.32	0.26	0.26	0.25	0.28	0.28	0.28	0.000
Obs.	61,208	6,579	3,191	3,388	1,691	21,002	27,581	

Table 7

Firms with constant number and increasing number of 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 numbers refer to total assets (TA), the equity-to-total assets ratio (EQTA), the current ratio (CURR), 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. The reference year is 1997, i.e., for the latter two groups we consider only firms that add a new bank relationship in 1998 in comparison to 1997.

Variable	Constant number. of bank relation-ships	New relationship with commercial or cooperative banks (starting in 1997 at earliest)			New relationship with savings banks from other provinces (starting in 1997 at earliest)			P-val. (Wilcoxon rank sum test)
(Medians)		Ex ante	Ex post	Average	Ex ante	Ex post	Average	Ex ante vs. Ex ante
TA	7,711	9,592	11,450	10,657	9,527	12,223	10,885	0.968
EQTA	36.07	36.32	35.25	35.70	34.39	34.19	34.33	0.000
CURR	126.40	126.24	125.60	125.88	118.48	120.40	119.40	0.000
ROA	3.18	3.48	2.82	3.09	3.01	2.51	2.73	0.000
ZSCORE	2.06	2.00	1.87	1.93	1.78	1.67	1.73	0.000
NREL	2	2	3	3	3	4	3	0.000
BIGAUDIT	0.33	0.28	0.25	0.27	0.23	0.24	0.24	0.000
Obs.	51,328	22,985	32,462	55,447	5,488	6,607	12,095	

Table 8

Analysis of borrower defaults

This table reports results from a logit model for default predictions. The dependent variable DEF equals one if a firm defaults, and zero otherwise. Explanatory variables are ZSCORE, which is a firm's average ZSCORE (from all years for non-defaulters and from the years prior to default for defaulters), NEW which equals one if a firm subsequently starts a bank relationship with at least one savings bank from another province, NEW_NOREG which equals one if a firm subsequently starts a bank relationship with at least one savings bank from another province in which the regional governments have no voting rights, NEW_REG which equals one if a firm subsequently starts a bank relationship with at least one savings bank from another province in which the regional governments have voting rights, and NEW_REG_P (NEW_REG_NOP) which equals one if a firm subsequently starts a bank relationship with at least one savings bank from another province in which regional governments have voting rights and the firm's and bank's home region are (not) governed by the same political party. We include year-fixed effects in all models. P-values are calculated from robust standard errors.

Panel A: Baseline analysis

Dep. Var.: DEF	Model 1		Model 2		Model 3	
	Coeff.	p-val.	Coeff.	p-val.	Coeff.	p-val.
ZSCORE	-0.3602	0.000	-0.3601	0.000	-0.3592	0.000
NEW	0.1521	0.015				
NEW_NOREG			0.0996	0.260	0.0997	0.259
NEW_REG			0.1858	0.012		
NEW_REG_NOP					0.0609	0.548
NEW_REG_P					0.2994	0.001
INTERCEPT	-1.9733	0.000	-1.9745	0.000	-1.8933	0.000
Year fixed effects	Yes		Yes		Yes	
Obs.	28,157		28,157		28,157	
Adj. McFadden R^2	0.0730		0.0730		0.0730	

Panel B: Firms from the industries "construction" and "real estate development"

Dep. Var.: DEF	Model 1		Model 2		Model 3	
	Coeff.	p-val.	Coeff.	p-val.	Coeff.	p-val.
ZSCORE	-0.2243	0.000	-0.2240	0.000	-0.2240	0.000
NEW	0.3460	0.001				
NEW_NOREG			0.1998	0.164	0.2000	0.164
NEW_REG			0.4271	0.000		
NEW_REG_NOP					0.2696	0.087
NEW_REG_P					0.5384	0.000
INTERCEPT	-1.3225	0.000	-1.3020	0.000	-1.2936	
Year fixed effects	Yes		Yes		Yes	
Obs.	5,529		5,529		5,529	
Adj. McFadden R^2	0.0410		0.0410		0.0410	