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## Governance mechanisms in Spanish banks. Does ownership matter?

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### Abstract

This paper examines the governance of Spanish banks regarding two main issues. First, does poor economic performance activate governance interventions that favor the removal of executive directors and the merger of non-performing banks? And, second, does the relationship between governance intervention and economic performance vary with the ownership form of the bank? We find a negative relationship between performance and governance intervention for banks, but the results change for each form of ownership and each type of intervention. Internal-control mechanisms work for Independent Commercial banks, but Savings banks show weaker internal mechanisms of control and the only significant relationship between performance and governance intervention that appears is for mergers. The Spanish Savings banks, with a peculiar form of ownership that, in fact, implies a lack of ownership, give voice to several stakeholder groups with no clear allocation of property rights. Nevertheless, their economic performance is not generally affected. Product-market competition compensates for those weaker internal governance mechanisms, and non-performing banks are not fully protected from disappearing.

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## 1. Introduction

This paper presents empirical evidence on the effective use of governance mechanisms for disciplining non-performing managers and directors of Spanish Commercial banks (shareholder-oriented banks) and Savings banks (non-profit commercial banks). The paper provides evidence on how, in both types of institutions, lower economic performance increases, in an economically significant way, the likelihood of directors' turnover and/or the likelihood that the bank will merge or will be acquired.

The topic of corporate governance is receiving heightened attention.<sup>1</sup> Although much of what is said also applies to banks, it is true that the banking firm has significant differences with respect to corporations in other economic sectors, and this justifies a special interest in its governance problems (Prowse, 1997; Adams and Mehran, 2003). For example, there is a clear conflict inside the banks between the interests of the shareholders and the interests of the depositors, with the former being willing to take high-risk projects that increase share value at the expense of the value of the deposits. Small deposits are insured and banks are regulated, to avoid crisis of confidence and bank runs, although it increases the moral hazard problem, as was seen in the Savings and Loan crisis in the US. Whether regulation substitutes or complements traditional governance mechanisms and controls is a subject of debate, but it is generally agreed that the external controls coming from takeovers and product-market competition turn out to be weaker in banks than in other firms (Prowse, 1997). Good governance relies more on the workings of internal mechanisms, such as the supervision and the control exercised by the board of directors, along with the regulatory constraints. Our paper focuses on those governance mechanisms that are implemented by the board, such as the replacement of managers and directors when a bank's economic performance does not meet the owners' expectations.<sup>2</sup>

Following previous work on this subject,<sup>3</sup> it is assumed here that internal-control works properly if the probability of a significant board turnover, or the dismissal of a top executive, is inversely related to the economic performance of the bank, measured in terms of accounting rates of return.<sup>4</sup> We also consider a friendly merger of banks as an intermediate control mechanism, somewhere in between the internal mechanisms and the external ones. This is so because mergers must be approved by the governance bodies of the bank, and also because the target bank's assets are

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<sup>1</sup> Tirole (2001) has caused a stir in the field with his views on the role of stakeholders. For a recent survey of the literature on corporate governance see Becht et al. (2002).

<sup>2</sup> Governance should be viewed as a system where each individual mechanism works interrelated with the others. A comprehensive analysis of the governance of Spanish banks is not feasible at this point and, although we have tried to take into account most of the available public information, the final analysis is limited to a subset of mechanisms keeping the rest as given.

<sup>3</sup> See, for example, Kaplan (1994a) and Franks et al. (2001) for non-financial firms, and Barro and Barro (1990), Blackwell et al. (1994) and Prowse (1995) for banking firms.

<sup>4</sup> The "quality" of corporate governance has been also evaluated by looking at decisions adopted by the board other than directors' replacement, such as the level and composition of management compensation, the size of the board and the number of outsiders in it.

transferred to the acquiring company. For this scenario, it is assumed herein that good governance will predict that the likelihood that a bank merges (and, therefore, its assets be transferred to another bank) increases with a lower economic performance of the target bank.

An important distinctive feature of our approach is that we compare the workings of governance mechanisms for three different forms of bank ownership: Independent Commercial banks, Subsidiaries (or Dependent banks) and Savings banks, which represent a case of a lack of ownership. This comparison is unique in the existing literature since the previous papers consider only one form of ownership at a time. Independent Commercial banks are privately owned banks whose shares are in the hands of families, individual investors and institutional investors. A bank is identified as Dependent when it has another bank (either national or international) as a controlling shareholder. Finally the Savings banks, “Cajas de Ahorros”, can be considered as “commercial non-profit organizations” in the sense of Hansmann (1996).

The Cajas control about half of the Spanish retail banking market. They compete for loans and deposits among themselves and with Commercial banks. Unlike Commercial banks, however, Savings banks must either retain their earnings or invest them in social and cultural programs (around 25% of their net profits go each year to these programs). They have no formal owners and there is no market then for corporate control of Savings banks. Moreover, the general assembly and the board are both composed by representatives from four stakeholder groups: public authorities, depositors, employees, and founding entities. Therefore, Spanish Savings banks display several important features. First, they are not-for-profit organizations, with a social contribution coming from their profits as an extra tax. Second, they have no owners and are immune to market corporate control, with the exception of friendly takeovers or mergers by other Savings banks. Lastly, and quite importantly, they must respond to potential conflicts of interests among their multiple stakeholders, who have a “voice” inside the governance mechanisms. This paper examines how such differences translate into economic performance, and it also provides comparative evidence on the relationship between management turnover and mergers, on the one hand, and economic performance on the other.

The Subsidiaries of other banks are legally independent firms that have a hierarchical relation with the parent bank. Some of them are subsidiaries of foreign banks, such as Barclays bank, and others are subsidiaries of other Spanish banks such as Banesto, which is now owned by Banco de Santander. These firms’ managers are closely supervised by the management team of the parent bank and, therefore, they can be considered lower-level managers of a holding company. Within Commercial banks, we are able to compare the role of accounting measures of performance in personnel administration decisions, such as the dismissal of lower-level managers, those in charge of the subsidiaries, and of top-level managers, like the chairman and CEO of the Independent banks.

We find a negative relationship between performance and governance intervention for banks as a whole, but the results change for each form of ownership and each type of intervention: while internal-control mechanisms work for Independent Commercial banks, Savings banks show weaker internal mechanisms of control since the only

significant relationship between performance and governance intervention appears to be in the case of mergers. The likelihood that a Savings bank merges or that it becomes acquired by another Savings bank is inversely related to economic performance. We interpret this result in terms of a disciplinary effect of product-market competition, quite severe among Spanish banks during the period covered by our study.

The paper is organized as follows. In Section 2, the general governance issues concerning banking firms are presented and the methodology used in the paper is described. Since governance mechanisms are expected to work differently depending on the type of bank, some hypotheses on the ownership–governance interaction in this section are formulated. The results of the empirical analysis are reported in Section 3, along with some description of the Spanish banking sector. We estimate two models, one for governance interventions for the whole sample of banks, and a second one only for Independent banks, where some additional control variables such as ownership concentration and anti-takeover measures are reported. Finally, the main findings of the paper are summarized.

## **2. Hypotheses and methodology**

The underlying general assumption in this paper is that governance is considered to be more effective if the likelihood of a turnover for top managers and executive directors (or the likelihood of a bank being merged) increases in banks with lower economic performance. The effectiveness of internal governance mechanisms has already been evaluated in a similar fashion for samples of non-financial firms in different countries: Warner et al. (1988) for the US, Kaplan (1994a) for Germany, Kaplan and Minton (1994) and Kaplan (1994b) for Japan, Franks et al. (2001) for the UK, or Gispert (1998) for Spain. All of these papers confirm an inverse relation between relative measures of economic performance, such as ROA, ROE or shareholder market returns, and the likelihood of changes in the position of the CEO and/or the chairman of the board.

Several authors have also applied this methodology to banks. For example, Barro and Barro (1990) use logit regressions to explain the probability of a CEO departure as a function of stock and accounting returns of the bank for a sample of large US Commercial banks during the period 1982–1987. Blackwell et al. (1994) find a negative relation between accounting profitability and management turnover in the subsidiaries of Texas' multibank holdings. Anderson and Campbell (2000), on the other hand, explain the lack of a relationship between executive turnover and the performance of Japanese banks as evidence of the banking sector's inefficiencies. Prowse (1995) evaluates the governance of US Bank Holding Companies by examining the relationship between the bank's economic performance and the probability that each one of four control mechanisms (management turnover, hostile takeovers, friendly mergers and regulatory intervention) was activated. He finds that control mechanisms are activated less frequently in the banking sector than in other economic sectors. Furthermore, there appears to be some substitution between regulation and other governance mechanisms in banks.

Our main interest in this paper is to compare how governance can work on correcting bad economic performance among banks with different ownership structures and goals, such as the case of Independent banks versus Subsidiaries, or Commercial banks versus Savings banks, all of them in the same economic, legal and regulatory environment.

Subsidiaries of other banks, either national or foreign, are likely to be subject to closer supervision by their principal when compared to independent banks. The parent company has full control over the subsidiary, and it will likely perform internal monitoring that limits the ability of managers of a subsidiary to act against the principal's interest. Under close supervision, managers can be evaluated in terms of the quality of the decisions they take, and actual performance may be less relevant in the firing decisions. For Independent banks, where shareholders are more dispersed and they lack the appropriate incentives to directly supervise the managers' activities, a "performance-based control" will be used to align the interests of managers and shareholders.<sup>5</sup> If this were the case, we could expect a stronger relationship between the activation of the different governance mechanisms and bad economic performance in the case of Independent banks than in the case of Subsidiaries.

**H1.** The relationship between governance intervention and bad performance is stronger for Independent banks than for Subsidiaries.

The multiple-stakeholder orientation of Savings banks, along with the nature of each interest group inside the governance bodies (i.e., general assembly, board of directors and committees), creates a potentially weak internal system of corporate governance. For example, the representatives of depositors are randomly selected from the total population, and they are renewed every four years. The representatives of the public authorities are quite often representatives from political parties. Finally, many of the founding institutions are public. All of these features suggest that managers and workers, the so-called insiders, may end up playing a dominant role in the bank even though they may be constrained by the laws, the competition from other banks and the Central Bank's supervision.

Governance bodies, such as the general assembly and the board of directors, may have a hard time to discipline those managers performing badly, specially when the latter enjoy more effective power. If this is the case, bad performance will have to be addressed in a different manner. We believe that in the case of Spanish Savings banks, mergers and acquisitions become that alternative mechanism. Even though stakeholders may have a hard time to discipline managers by themselves, the arrival of external offers to merge or be acquired that must be necessarily discussed and approved by them might facilitate their task. Therefore, we expect mergers to be

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<sup>5</sup> Performance-based control is more likely when supervision costs become high, like when ownership is rather dispersed. Control by direct monitoring can be applied in subsidiaries of other banks because the parent company is the only relevant shareholder and enjoys hierarchical power over the managers of the subsidiary.

relatively more relevant as a governance mechanism for Savings banks than for Commercial banks.

- H2.** (a) The relationship between management turnover and performance is weaker for Savings banks than for Commercial banks.  
 (b) Among Savings banks, mergers are the main governance mechanism to deal with poor economic performance.

A multivariate analysis will indicate which kind of governance mechanism is more likely to be activated in the case of low performance and, furthermore, if the likelihood is homogeneous or not among different ownership types. The model to be estimated is a multinomial logit where the dependent variable reflects five different situations: no intervention, board change, replacement of the chairman, CEO removal and merger or acquisition. As explanatory variables, here bank performance, along with the ownership form (Dependent banks, Independent Commercial banks and Savings banks), and some control variables are used. To test for the presence of variations among different types of ownership, dummy variables for each form of ownership are used that interact with the explanatory variables. The variable  $D_1$  takes the value of “one” for Subsidiaries and “zero” otherwise, while  $D_2$  is used for Savings banks and it becomes “one” only for that type of bank. Thus, we use the following model,

$$\begin{aligned} \text{Governance Intervention} = & \alpha_{i0} + \beta_1 \text{Performance}_i + \beta_2 \text{Control variables}_i \\ & + \alpha_{i1} D_1 + \alpha_{i2} D_2 + \beta_{11} D_1 \text{Performance}_i \\ & + \beta_{12} D_2 \text{Performance}_i + \beta_{21} D_1 \text{Control variables}_i \\ & + \beta_{22} D_2 \text{Control variables}_i + \varepsilon_{it}. \end{aligned}$$

Using this notation, we can rewrite our initial hypotheses as follows:

**H1.**  $\beta_1 < 0$ ,  $\beta_{11} > 0$ , and

**H2.** (a)  $\beta_1 < 0$ ,  $\beta_{12} > 0$ .

These hypotheses imply that we expect a negative sign for  $\beta_1$  (that is, a better performance means a lower likelihood of intervention). But we also expect the coefficient of the multiplicative variable  $\text{performance} \times \text{form of ownership}_i$  to be positive, which means a weaker relationship between bad performance and governance intervention for Dependent banks and Savings banks than for the case of Independent Commercial banks (the omitted variable). Therefore, we expect  $\beta_1 + \beta_{11} > \beta_1$ , or a positive coefficient,  $\beta_{11} > 0$ , for the case of Dependent banks. Similarly, we expect  $\beta_1 + \beta_{12} > \beta_1$ , or a positive coefficient,  $\beta_{12} > 0$ , for the Savings banks case. This applies to the different mechanisms with the exception of merger/acquisitions and the Savings banks. According to H2b, mergers are expected to be the main governance intervention for Savings banks. No further hypothesis is formulated for the control variable size nor for the time-period controls.

### 3. Empirical analysis

#### 3.1. *The Spanish banking sector*

Banking is a regulated industry in Spain where three main institutions, Commercial banks, Savings banks and Credit cooperatives, compete under equal conditions in the loan, deposit and financial service markets. Some of the commercial banks are subsidiaries of foreign banks or subsidiaries of other Spanish banks. Regulations are practically the same for the three types, as well as their accounting practices, external reporting, credit-risk management standards and so on. Commercial and Savings banks are much more important than cooperatives. Together, they account for more than 95% of the loan and deposit markets. In this paper, we will restrict our attention to these two types.

All banks are free to fix interest rates in their loan operations and deposits, and they can also freely decide about other commercial policies, such as how many branches to open and where to locate them. The last important liberalization decision was taken in 1989 when Savings banks were allowed to expand beyond their traditional geographic markets. During the past 12 years, most of the growth of Savings banks has originated outside of their original region, and today the two largest Savings banks, La Caixa and Caja Madrid, have branches spread all over the country. The fact is that in 1990 the Savings banks' market share was 39.8% within the deposits market, and 33.9% for the loans market.<sup>6</sup> By December 2002, those figures were 46.9% and 44.1%, respectively, with important gains in both markets, but especially in the loan market.

Entry of new competitors in the regional and local markets, along with the persistent decline in the interbank interest rate as a result of the nominal convergence of the Spanish economy towards the European Monetary Union, have generated a continued erosion of the financial intermediation margins. In 1990, the spread between interest paid on deposits and interest earned on loans was 5.5% points. By the year 2000, that spread was only of 3% points. Increased competition and lower profit margins have facilitated many mergers and acquisitions among banks, both in Commercial and Savings banks. In 1986, the first year of our data sample, the number of Commercial and Savings banks were 101 and 93, respectively. By the year 2000, those figures were 49 and 48. One of the hypotheses to be tested is to know if an increase in competition acts as a disciplinary device among Spanish banks, where those institutions with lower economic performance are being forced to disappear.

Due to the particular purpose of this paper, the different ownership forms of the banks in the sample (i.e., Independent Commercial banks, Subsidiaries of Commercial banks and Savings banks) become a matter of special interest. The first two types are shareholder-oriented banks and, furthermore, the Subsidiaries are typically fully owned by parent banks, either national or international firms.

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<sup>6</sup> Source: CECA. There are different ways to measure deposits and loans. Here, we have used the "recursos ajenos" accounts for deposits, and "créditos y valores" for loans as provided by CECA.

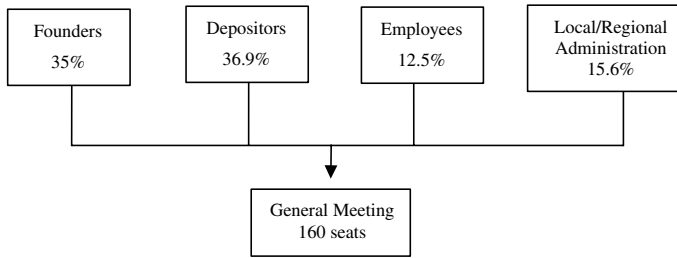


Fig. 1. General Meeting composition and voting rights distribution across stakeholders in a typical Spanish Savings bank.

Savings banks have the ownership form of a private foundation, with a board of trustees with representatives from regional authorities, city halls, workers, depositors and the founding entity. Fig. 1 shows the composition of the general assembly and of the board of directors of a typical Spanish Savings bank.

Those represented on the boards of Savings banks act more as trustees than as owners of the assets, while bank shareholders have well-defined property rights over the bank's assets. Since clearer and well-defined property rights should imply more pressure on the managerial team to increase profits, one would expect that the economic performance of Savings banks should be worse than that of Commercial banks. However, as shown by Pastor (1995), Grifell-Tatjé and Lovell (1997) and Lozano (1998), the empirical evidence suggests that Savings and Commercial banks have similar levels of productive efficiency. This finding is inconsistent with a property rights approach. Nevertheless, one possible explanation for this evidence is that, after all, ownership and governance are not so decisive for a firm's economic performance when that firm is subject to sufficient competition. And this seems to be the case in Spanish retail banking.

As happens in other European continental countries, the ownership structure of listed Spanish firms is highly concentrated, although somewhat below the average European level. The median largest voting block in the mid-1990s was 34.5% in Spain versus 57% in Germany, 56% in Belgium, 54.5% in Italy and 43.5% in the Netherlands. The average percentage of shareholdings by sector in Spain is shown in Crespí and García-Cestona (2001).<sup>7</sup> Furthermore, the number of hostile takeovers and the relevance of the stock markets continue to increase. Large Commercial banks are listed and their shares, although concentrated, are more dispersed among small shareholders than other non-financial firms. Some medium-sized banks are listed while others are not. Also, as was mentioned earlier, ownership of Savings banks cannot be freely traded. Finally, a large number of Commercial banks operating in the Spanish market are Subsidiaries of other banks, either national or

<sup>7</sup> The average percentage in Spain varies from 32.13% for the non-financial firms (with 21.02% for the Chemical sector and 33.65% for Metal manufacturing, among others), to 41.11% for the Banking sector, where the listed firms include both independent banks and subsidiaries.



Table 1  
Sample distribution for bank type and year (1989–2000)<sup>a</sup>

Year	Independent banks				Dependent banks			Savings banks Number of firms
	Number of banks	Fraction listed, %	C1, %	% of listed banks with anti-takeover protection	Number of banks	Listed, %	C1, %	
1989	27	59	27	25	58	40	73	72
1990	30	53	27	44	66	36	72	55
1991	29	45	23	46	64	41	80	50
1992	29	48	23	50	60	40	82	51
1993	28	50	25	43	66	36	80	48
1994	26	50	25	46	57	35	79	52
1995	26	46	27	50	56	38	78	49
1996	25	48	29	50	56	38	79	50
1997	24	46	30	55	56	39	81	50
1998	23	43	23	60	53	42	81	50
1999	20	40	22	63	44	41	85	49
2000	18	33	18	67	43	42	81	48

<sup>a</sup> The available data set covers the years 1986 until 2000 for governance interventions and returns. Data concerning stock market regulation (CNMV) is available starting in 1989.

foreign. Some of them are also listed, like Banesto. However, these Subsidiaries' market share, specially in retail banking, is quite modest when compared with the rest of the banking institutions.

Table 1 presents some descriptive information about the number of banks under each ownership form and year, the number of Commercial banks that are listed, the proportion of shares of the bank held by the largest shareholder, C1, and the number of listed banks in each year that have introduced takeover protections. This table confirms the important reduction in the number of banks over time. Second, the shareholdings of the listed Spanish Commercial banks are highly concentrated: the largest shareholder holds, on average, more than 25% of the shares, although share concentration has decreased in the last few years, when only six Independent Commercial banks still remain listed.<sup>8</sup> As expected, the largest shareholder of the Dependent banks, the principal bank, controls on average 80% of the shares of the subsidiary, which confirms the fact that subsidiaries are under absolute control of the parent companies. Among these banks, concentration remains rather stable over time.

Takeover protections are quite common among listed Commercial banks. They include the presence of voting caps, voting pacts, non-voting shares, board membership

<sup>8</sup> Data on shareholder concentration is only available for listed firms since they are required to disclose this information. We also have estimations of the shareholdings held by the top three and the top five shareholders; the average values of these concentration measures are, respectively, 35.3% and 37.5%, and both are highly correlated with the proportion of shares held by the largest shareholder. For the rest of the paper, we only consider the measure shown in Table 1.

restrictions, super-majority amendments, impediments to takeover protections removal and even golden shares.<sup>9</sup> As can be seen in the table, half of the listed banks enjoy these protection measures and the percentage has increased in recent years because of mergers.<sup>10</sup> Some institutions have introduced several takeover protections simultaneously. For instance, the former Banco Bilbao Vizcaya amended its statutes to include super-majority requirements for the approval of certain relevant decisions such as mergers, and, simultaneously, the same bank limited the proportion of votes that a single shareholder could exercise. The complete privatization of Argentaria also incorporated a golden share mechanism.

### *3.2. Data for the multivariate analysis*

Data have been collected for all banking institutions operating in Spain from 1986 through the year 2000. The Spanish Association of Private Banks (AEB) provided the data for Commercial banks, while the data on Savings banks came from the Spanish Federation of Savings banks (CECA). For Commercial banks, Subsidiaries of foreign banks were easily identified by those organizations collecting the data, while additional work was needed to distinguish the groups of Independent banks and Subsidiaries of domestic banks. We have a total of 1894 bank/year observations<sup>11</sup> for the time-period running from 1986 through 2000. This means that the number of banks in a representative year is 135.

For each bank data were collected on the interventions of governance mechanisms, ownership type, size and economic performance. Four governance interventions were considered: (i) a turnover of at least 50% of executive directors, excluding the chairman and the CEO (or general manager); (ii) the removal of the chairman; (iii) the removal of the CEO, and (iv) a merger or an acquisition by another bank during a particular year. Facing the four scenarios, the variables were recorded as a “zero–nonzero” value, where a zero value means no intervention has occurred, and a positive value otherwise. The final positive value depends on the type of intervention. From the whole data sample, the bank-year observations for which a merger or acquisition has occurred are first identified and a value of 4 is assigned to these cases. With the remaining data, we proceed to search for the bank-year observations with a change in the CEO, and a value of 3 is then assigned to them. Next, we check for the remaining bank-year observations those where the chairman of the board has been replaced and a value of 2 is assigned to them. Finally, we search in the remaining observations for those cases where at least 50% of the board members have changed from the previous year. The “board change” variable takes the value of 1. After all of

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<sup>9</sup> Once more, these protections are only known for the listed banks.

<sup>10</sup> In March 2003, Banco de Santander was the first listed bank to announce the removal of some anti-takeover measures and, simultaneously, the disclosure of detailed information concerning the compensation of individual board members. Other banks are expected to follow suit.

<sup>11</sup> The figure of 1894 observations corresponds to 14 years instead of 15 because some variables are calculated as differences (e.g., turnovers) and others have been lagged one year (e.g., performance).

this, the remaining bank-year observations correspond to non-intervention cases, and have a zero value in our measure of governance interventions.

The values assigned to every governance intervention only reflect different categories, and the ordinal value has no further meaning. Furthermore, only the cases for which there is evidence that the CEO and Chairman changes are not due to retirement or death are considered. Finally, since mergers are often followed by changes in the management team and board, for those banks that continue, changes in their boards and management are not considered following a merger, as has been explained in the construction of the governance interventions variables.

Economic performance is measured through the ratio of accounting profits and the bank's total assets. We favor return on assets (ROA) over return on equity (ROE) because the latter is affected by the capital–asset ratio of the bank, which differs substantially among the banks in the sample. Furthermore, two measures of accounting profits are used: total net profit after taxes, and profits from regular banking operations before taxes. As is well known (see Saurina, 1997), Spanish banks tend to smooth accounting profits by buying and selling assets, such as shareholdings in other firms. When we use “profits from banking operations”, this measure is less affected by the capital gains (or losses and provisions) coming from financial investments and other investments than by the alternative of using total net profits. In this sense, we think that this variable is a better indicator of the economic efficiency of banks. Both variables refer to the year before the governance intervention takes place. The  $ROA_{t-1}$  variable indicates then the total net profits over total assets in year  $t - 1$ , while  $IOA_{t-1}$  refers to the profits from banking operations over total assets at  $t - 1$ .

Profits and rates of return are preferred to productivity and other measures of productive efficiency because they are the variables most often used by owners to appraise the performance of their investments. Market-based rates of return and prices cannot be used because only some of the banks in the sample are listed.

Two characteristics are used as control variables in the empirical analysis: the size of the bank, measured by the total assets at the end of the year, and the time period. Size is often correlated with other unobserved variables such as asset diversification and managerial abilities. The calendar variable controls for shocks common to all banks in a given year, enabling us to evaluate relative performance.

Table 2 shows the descriptive statistics concerning size, performance and governance intervention for the whole sample of banks, and for the two main ownership forms considered in the paper, Independent Commercial Banks and Savings Banks. Spanish financial intermediaries manage assets worth, on average, 3.5 billion Euros and achieve a 1.39% return on those assets. Of these, 0.91% points come from regular banking operations, while the rest is financial investments and extraordinary profits. Banks replace, at least, half of their executive directors every five years (that is, board changes occur in 19.6% of the cases). The average period in office for a chairman is little more than 6 years (a chairman removal rate of 15.9%), which is longer than the CEO's time in office, 4.4 years (a 22.9% removal rate). Finally, mergers and acquisitions represent only 4.2% of the total number of observations.

Table 2  
Descriptive statistics of the relevant variables

Variable	Whole sample			Independent Commercial banks			Savings banks		
	Obs.	Mean	Std. dev.	Obs.	Mean	Std. dev.	Obs.	Mean	Std. dev.
Total assets (10 <sup>9</sup> €)	2105	3.52	10.20	402	9.30	19.70	859	3.45***	7.19
ROA <sub>(t-1)</sub> × 100	1792	1.39	3.04	355	1.13	2.48	727	1.28*	0.99
IOA <sub>(t-1)</sub> × 100	1792	0.91	2.29	355	0.59	1.74	727	0.92***	0.61
Board change	1792	0.20	0.23	355	0.15	0.20	727	0.21***	0.24
Chairman removal	1792	0.16	0.37	355	0.09	0.29	727	0.16***	0.37
CEO removal	1615	0.23	0.42	371	0.26	0.44	487	0.13***	0.34
Merger/acquisition	2105	0.04	0.20	402	0.03	0.01	859	0.06**	0.008

The significance levels reported here refer to the differences between Independent Commercial banks and Savings banks. The number of observations changes by variable, depending on the calculations of differences between years. For CEO data there are some missing values.

\* Significance level 10%.

\*\* Significance level 5%.

\*\*\* Significance level 1%.

When compared with Independent Commercial banks, we see that Spanish Savings banks are smaller in size but more profitable, especially when we consider only profits from regular banking operations. This evidence is consistent with the results of other studies, already mentioned above, and it shows that the ownership structure of Savings banks does not seem to affect their economic performance negatively. Board changes and chairman removal are more frequent among Savings banks than among Independent Commercial banks, but the opposite is true for CEO removal and merger/acquisitions, less frequent in the case of Savings banks. Therefore, interventions are evenly distributed in the sample and the next question is to see how such interventions relate to the economic performance of banks.

Spanish banks are smaller than banks used in similar studies for Japan (Anderson and Campbell, 2000), and for the USA (Prowse, 1995). Furthermore, they earn higher return on their investment, and board membership changes are more frequent in Spanish banks than in US banks, and more similar to the figures observed for Japan. The average time in office for a CEO is less in Spain than in the samples used in other countries (that is, CEO changes are more frequent in Spain), while mergers and acquisitions of banks are less frequent in our sample than in other studies.

### 3.3. Governance intervention and economic performance

Some preliminary evidence is shown in Table 3, where the economic performance of banks that experience some form of governance intervention is compared to those banks with no intervention. For both Dependent and Independent Commercial banks, we find that intervention is triggered by low performance. This is more evident when measured by IOA (returns from regular banking operations). Interestingly enough, for Savings banks, no difference is detected between the two samples.

Table 3  
Average ROA and IOA (in %) by bank type and governance intervention

	ROA <sub>(t-1)</sub> × 100		IOA <sub>(t-1)</sub> × 100	
	No intervention	Governance intervention	No intervention	Governance intervention
Dependent banks	1.79	1.39	1.20	0.87*
Independent Commercial banks	1.21	0.96	0.81	0.17***
Savings banks	1.25	1.35	0.93	0.92

Governance intervention here means that a bank has experienced a CEO or Chairman removal, board turnover or a merger/acquisition.

The reported significance levels refer to the differences between governance intervention and non-intervention.

\* Significance level 10%.

\*\*\* Significance level 1%.

To perform the multivariate analysis, we first estimate the model for the whole sample of banks, including Commercial and Savings banks. This first estimation does not take into account the top-share concentration variable, *C1*, or the takeover protections because that information is only available for listed Commercial banks, and they do not apply in the case of Savings banks. Later on, we will estimate the model once more, but only for the case of Independent Commercial banks, also including the information concerning the concentration measure and the anti-takeover variables in the model.

Table 4 shows the results of the multinomial logit model for the whole sample. Overall, the statistical fit of the model is good, as the log-likelihood statistics indicate. For Savings banks, the positive intercept in the replacement of the chairman and in the Merger variables confirm that, after controlling for size and performance, these two mechanisms are more frequently used among Savings banks than within Independent Commercial banks. However, the negative coefficient for Savings banks in the column of CEO replacement confirms that general managers change less frequently in Savings banks, after controlling for size and performance. Being a Dependent bank only affects the likelihood of chairman removal (it goes up), with respect to what happens for the Independent banks, controlling for size and performance level. Also for the group of Dependent banks, a larger size increases the likelihood of board change and CEO dismissal. The likelihood of governance intervention seems to behave independently of bank size, except for the case of mergers among Independent banks, where a positive and statistically significant coefficient is obtained.

Among Independent banks, governance intervention is always negatively associated with economic performance, with the exception of changes in the board. This result can be seen from the negative and statistically significant coefficients of the ROA<sub>t-1</sub> and IOA<sub>t-1</sub> variables in the columns of Table 4.

In general, the coefficient of IOA<sub>t-1</sub> has a higher statistical significance than the ROA<sub>t-1</sub> coefficient, and in the case of CEO dismissal the former is the only statistically significant coefficient. In this sense, IOA, a profit measure which is harder to “smooth over” by the management of the bank, becomes more informative about the economic

Table 4

Multinomial Logit. Types of governance intervention for Independent banks, Dependent banks and Savings banks (time dummies included)

	Merger/acquisition		CEO replacement		Chairman removal		Board turnover	
Intercept	-2.69*** (0.59)	-3.02*** (0.59)	-1.31*** (0.31)	-1.20*** (0.31)	-2.95*** (0.54)	-3.27*** (0.55)	-2.93*** (0.60)	-3.1*** (0.60)
Dependent banks	-0.41 (0.49)	0.06 (0.46)	0.08 (0.20)	-0.06 (0.19)	0.43 (0.43)	0.76 (0.43)	-0.38 (0.5)	-0.16 (0.49)
Savings banks	0.702 (0.56)	1.18** (0.47)	-1.43*** (0.27)	-1.61*** (0.34)	0.91** (0.44)	1.58*** (0.45)	-0.01 (0.47)	0.44 (0.52)
Size (total assets) ( $t-1$ )	0.02 (0.01)	0.02* (0.01)	0.004 (0.01)	0.005 (0.008)	-0.03 (0.04)	-0.03 (0.04)	-0.01 (0.03)	-0.01 (0.03)
Size $\times$ Dependent banks	0.28 (0.17)	0.28* (0.17)	0.18** (0.08)	0.19** (0.08)	0.12 (0.15)	0.13 (0.15)	0.36** (0.17)	0.34** (0.17)
Size $\times$ Savings banks	-0.11 (0.08)	-0.13 (0.09)	0.03 (0.02)	0.03 (0.02)	-0.05 (0.06)	-0.06 (0.06)	0.01 (0.04)	0.02 (0.04)
ROA <sub>(<math>t-1</math>)</sub>	-0.74** (0.30)		-0.02 (0.06)		-0.68** (0.27)		-0.04 (0.16)	
ROA <sub>(<math>t-1</math>)</sub> $\times$ Dependent banks	0.64** (0.31)		-0.04 (0.07)		0.67** (0.27)		0.10 (0.16)	
ROA <sub>(<math>t-1</math>)</sub> $\times$ Savings banks	0.28 (0.44)		0.12 (0.12)		0.85*** (0.29)		0.30 (0.20)	
IOA <sub>(<math>t-1</math>)</sub>		-0.54*** (0.18)		-0.27*** (0.09)		-0.46*** (0.16)		0.11 (0.16)
IOA <sub>(<math>t-1</math>)</sub> $\times$ Dependent banks		0.46** (0.19)		0.20** (0.1)		0.48*** (0.16)		-0.05 (0.17)
IOA <sub>(<math>t-1</math>)</sub> $\times$ Savings banks		-0.12 (0.33)		0.47* (0.27)		0.41* (0.24)		-0.05 (0.33)
Log likelihood	-1769	-1773						
Pseudo $R^2$	0.08	0.08						
Obs.	1785	1785						
LR chi2	321***	324***						

\* Significance level 10%.

\*\* Significance level 5%.

\*\*\* Significance level 1%.

performance of the bank. We report the coefficients for the two performance variables, but from now on we will only comment on the IOA results. First, we see that for the Independent Commercial banks governance intervention is negatively associated with economic performance, as good governance practices would predict.

Furthermore, the variable performance  $\times$  Dependent banks<sub>*i*</sub> has a positive coefficient. This coefficient is similar, in absolute terms, to the one estimated above for performance. By construction, the relevant coefficient for the sample of Dependent banks is the sum of those two coefficients,  $\beta_1 + \beta_{11}$  ( $= -0.07$ ), which means that for the Dependent banks in our sample governance intervention is not associated with economic performance in an economically significant way. This result is consistent with our first hypothesis, H1, and confirms that subsidiaries are more likely to be subject to “behavioral or parent control” rather than to “performance control”.<sup>12</sup>

For the sample of Savings banks, the coefficient of performance  $\times$  Savings Banks<sub>*i*</sub> is also positive and statistically significant, except when the governance intervention is merger/acquisition, where the coefficient is not statistically significant. On one hand, this means that, among Savings banks, the replacement of the chairman (or the CEO) is not linked to lower economic performance of the bank (the sum of the corresponding coefficients  $\beta_1 + \beta_{12}$  is positive but close to zero for the CEO and chairman columns). On the other hand, poor economic performance may more likely activate a merger or acquisition as a disciplinary device (the coefficient of the performance variable for Savings banks is not significantly different from the same coefficient for Independent banks which is negative and significantly different from zero). This evidence corroborates that mergers have become the main governance mechanism to fix economic inefficiencies in the case of Savings banks. In that way, this result supports our hypothesis H2b.

We complement the statistical results from the multivariate estimation with information concerning their economic relevance. In Table 5, the actual and predicted probabilities of governance intervention are compared for the sample of Independent banks and each quartile of economic performance. According to the statistical results, the probability of Board change is not related to economic performance in our study.<sup>13</sup> But for the rest of the governance interventions the inverse relationship between probability of turnover and performance is confirmed and it presents high economic significance. As one moves from the highest performance quartile to the lowest, the probability of CEO turnover doubles from 16% to 33%. And for the case of mergers, the probability increases from 2% in the highest performance quartile to 12% in the lowest performance one.<sup>14</sup>

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<sup>12</sup> We do not know to what extent this result for the Subsidiaries may be affected by their vulnerability to profit-shifting by the parent firms (see Demirgüç-Kunt and Huizinga, 2001).

<sup>13</sup> This can also be detected by observing the frequency of board turnovers in each quartile.

<sup>14</sup> The probabilities have been estimated for the other forms of ownership but the results are not shown because they are consistent with those of the multivariate model. For example, the predicted probabilities of turnover are independent of performance for Subsidiaries and for Savings banks, but they follow the same pattern as for the Independent banks in the case of mergers of Savings banks.

Table 5

Predicted (in bold letters) and actual governance intervention probabilities. Partial changes (marginal effects) on IOA returns for Independent banks

	IOA <sub>(t-1)</sub> ×100	Merger or acquisition	CEO removal	Chairman removal	Board change
Mean actual values	0.58	0.04	0.25	0.03	0.03
Predicted probabilities on mean values of independent variables		<b>0.06</b>	<b>0.24</b>	<b>0.03</b>	<b>0.03</b>
Quartiles of IOA × 100 performance (average values Independent banks)					Probabilities
Average IOA first quartile	-1.11	0.08 <b>0.12</b>	0.33 <b>0.33</b>	0.04 <b>0.05</b>	0.01 <b>0.02</b>
Average IOA second quartile	0.23	0.01 <b>0.07</b>	0.26 <b>0.26</b>	0.02 <b>0.03</b>	0.02 <b>0.03</b>
Average IOA third quartile	0.73	0.02 <b>0.05</b>	0.26 <b>0.24</b>	0.04 <b>0.02</b>	0.06 <b>0.03</b>
Average IOA fourth quartile	2.48	0.02 <b>0.02</b>	0.17 <b>0.16</b>	0.01 <b>0.01</b>	0.02 <b>0.04</b>

### 3.4. Governance in the Independent Commercial banks sample

Next, the multinomial logit model is estimated separately for the sample of Independent Commercial banks. We do this to provide a robustness test for the previous results, after controlling for ownership and anti-takeover protection variables. These variables are only available for listed banks, and we can only introduce them in this sample of banks. Moreover, Dependent banks are also excluded from the sample since they are under absolute control of their parent banks.

The results are shown in Table 6 and they are consistent with those obtained for the full sample case. They also show that listed Independent Commercial banks only differ from unlisted banks in the size variable and for merger intervention. The negative sign of the coefficient of the variable “Size × listed” indicates that for the listed banks the effect of size on the likelihood of merger is lower than for the unlisted ones.

We also find that takeover protections only affect the likelihood of board turnover and they do so in a positive way. In other words, no evidence is found in our sample to show that anti-takeover protection reduces the likelihood of governance intervention in any of the cases considered. Ownership concentration, C1, on the other hand, has a positive and significant coefficient in the columns of CEO replacement and merger. This means that for a given level of economic performance, CEOs are more likely to be replaced when there is a dominant shareholder. A large shareholding also seems to increase the likelihood of mergers. These findings should be taken with some caution since the sample of listed firms is relatively small. Nevertheless, and more importantly for our purposes, they provide a robustness test for the results



Table 6  
 Multinomial Logit. Types of governance intervention for Independent banks (listed and not listed) explained by IOA and size with ownership concentration and takeover protection effects (time dummies included)

	Merger/acquisition				CEO replacement				Chairman removal				Board turnover			
Intercept	-2.76**	-3.37***	-2.76**	-3.44***	-1.06	-1.24**	-1.06*	-1.23**	-2.46***	-2.60***	-2.32***	-2.46***	-2.34***	-2.33***	-2.41***	-2.42***
	(1.09)	(1.17)	(1.10)	(1.19)	(0.54)	(0.55)	(0.54)	(0.55)	(1.09)	(1.12)	(1.09)	(1.14)	(1.09)	(1.09)	(1.1)	(1.10)
Size (total assets) (t - 1)	0.16**	0.21**	0.16**	0.23**	0.02	0.04	0.02	0.04	-0.25	-0.24	-0.26	-0.24	-0.14	-0.15	-0.12	-0.12
	(0.08)	(0.09)	(0.08)	(0.09)	(0.05)	(0.05)	(0.05)	(0.05)	(0.33)	(0.33)	(0.34)	(0.34)	(0.17)	(0.19)	(0.17)	(0.17)
Size (total assets) (t - 1)* listed banks	-0.14	-0.19**	-0.14*	-0.19**	-0.02	-0.04	-0.02	-0.04	0.23	0.22	0.247	0.23	0.14	0.15	0.02	-0.003
	(0.08)	(0.08)	(0.08)	(0.08)	(0.05)	(0.05)	(0.05)	(0.05)	(0.33)	(0.33)	(0.337)	(0.34)	(0.18)	(0.19)	(0.18)	(0.18)
IOA <sub>(t-1)</sub>	-0.53**	-0.60***	-0.53**	-0.60***	-0.31***	-0.29**	-0.31***	-0.29**	-0.49**	-0.48**	-0.48**	-0.47**	-0.09	-0.12	-0.01	-0.04
	(0.21)	(0.23)	(0.21)	(0.23)	(0.12)	(0.12)	(0.12)	(0.12)	(0.19)	(0.19)	(0.19)	(0.19)	(0.29)	(0.27)	(0.34)	(0.32)
IOA <sub>(t-1)</sub> * listed banks	-0.84	-0.35	-0.84	-0.38	0.32	0.38	0.31	0.38	0.49	0.52	0.53	0.57	0.89	1.12	-0.09	-0.65
	(0.77)	(0.76)	(0.78)	(0.77)	(0.23)	(0.23)	(0.24)	(0.24)	(0.67)	(0.68)	(0.72)	(0.72)	(0.55)	(0.60)	(0.63)	(0.91)
C1* listed banks		0.04***		0.04***		0.016**		0.016**		(0.01)		(0.01)		-0.06		-0.07
		(0.01)		(0.01)		(0.006)		(0.006)		(0.02)		(0.02)		(0.06)		(0.07)
Takeover protection* listed banks			-0.16	-0.69			0.03	-0.04			-0.46	-0.47			3.96***	5.27***
			(1.14)	(1.19)			(0.43)	(0.43)			(1.37)	(1.36)			(1.36)	(1.94)
Log likelihood	-271	-264	-266	-258												
LR chi2	97**	111***	107***	122***												
Pseudo R <sup>2</sup>	0.15	0.17	0.17	0.19												
Obs.	340	340	340	340												

\* Significance level 10%.  
 \*\* Significance level 5%.  
 \*\*\* Significance level 1%.

shown in the whole sample, since the significance of the economic performance variable does not change when the ownership variables and anti-takeover protections are introduced in the model.<sup>15</sup>

#### **4. Conclusion**

This paper examines the effectiveness of governance mechanisms in the Spanish banking sector. One important research question is to compare governance effectiveness between Savings banks and Commercial banks, given the special ownership and governance structure of the former. Second, although we acknowledge that market-based mechanisms, such as takeovers and product-market competition, can work for banking in the same fashion as they do for other sectors of the economy, in practice the evidence shows that these mechanisms are weaker in banking. The reason is that regulatory intervention limits the effectiveness of the takeover market and the intensity of rivalry. Another research question is to explore whether internal governance mechanisms and regulatory intervention are effective enough to correct for corporate control problems and to compensate, at the same time, the limitations of market-based mechanisms.

Our analysis considers three forms of ownership, Independent Commercial banks, Dependent banks and Savings banks. The four control mechanisms analyzed here are changes in the board, removal of the Chairman, CEO dismissal and mergers/acquisitions. Our results show that governance interventions in the Spanish banking industry occur as frequently as in other countries, such as Japan or the US, where similar data are available. The exception is the merger/acquisition mechanism, which is much less frequent in Spain than in the US. At the same time, we find that each governance mechanism is used with different intensity by the different types of banks. For example, chairman turnover and mergers are more frequently used among Savings banks, while CEO replacement is more frequent in Independent Commercial banks than in Savings banks.

This paper also corroborates the general hypothesis that governance intervention is more likely when firms are poorly managed and their economic returns are low. The evidence becomes stronger for the sample of Independent Commercial banks when performance is measured in terms of profits from normal banking operations. This was an expected result since these banks fit closely with the ownership type of a

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<sup>15</sup> Another robustness test performed was to compare the statistical and economic results obtained from the different multinomial models estimated using all the data, with the results from estimating a separate multinomial logit model for each group of banks, Independent, Dependent and Savings. The results are basically the same for the two estimations and they are available by request from the corresponding author. This robustness test is justified after Ai and Norton (2003), who show a potential bias in the estimated standard errors of the interacted variables for the conventional probit and logit models. The methodology of Ai and Norton to correct the bias is not extended yet to multinomial logit models with many interacted variables, but it was important to be sure that the methodology followed in the paper, the joint estimation of the model for all types of banks, was not distorting the conclusions.

shareholder-owned firm with a separation between ownership and control. On the other hand, Subsidiaries of other banks behave more as internal divisions of a larger company, and their control is based on more variables than just economic performance. These results are robust to introducing ownership concentration and takeover protections as additional explanatory variables.

In Savings banks this negative association between governance activity and economic performance is only observed in banks that merge. This would confirm the presumption that the internal governance system of the Savings banks, with stakeholders that are likely to hold different interests and information, is rather weak. Nevertheless, a poor economic performance may be corrected through mergers (and possibly through regulatory interventions, although we lack the necessary data on this) and this correction appears to be quite effective since, in the end, the average economic performance of Savings banks is better than the corresponding figure for Commercial banks. This evidence seems to suggest that, at least in Spain, competition in retail banking remains high. Banks that make wrong decisions and/or manage their resources inefficiently will obtain lower economic returns and, at some point, they will disappear as a result of a merger or acquisition. This will happen independently of the ownership structure of the bank. The final outcome, to discipline bad economic performance, may be achieved through different means, and this is something to be taken into account when research focuses in a limited number of governance mechanisms.

So far, mergers among Spanish Savings banks have only been possible when those Savings banks involved belong to the same region (State, or “Comunidad Autónoma”). If we want mergers to be an effective disciplinary device, it seems necessary to modify the current regulatory restrictions that make mergers between Savings banks located in different regions almost impossible. Since mergers are also an effective disciplinary mechanism for Independent Commercial banks, our recommendation to remove the obstacles to interstate mergers applies not only to states or autonomous regions within a country, but also to international mergers within the European Union.

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