



Universitat Autònoma de Barcelona

# Documents de treball

## **Governance Mechanisms in Spanish Financial Intermediaries**

**Rafel Crespi**

**Miguel A. García-Cestona**

**Vicente Salas**

Document de treball núm. 2002/9

Departament d'economia de l'empresa



© Rafel Crespi, Miguel A. García-Cestona, Vicente Salas

*Coordinador documents de treball:*

Pere Ortín Ángel

<http://selene.uab.es/dep-economia-empresa/codi/documents.html>

e-mail: [Pere.Ortin@uab.es](mailto:Pere.Ortin@uab.es)

Telèfon: 93 581451

*Edita:*

Departament d'economia de l'empresa

<http://selene.uab.es/dep-economia-empresa/>

Universitat Autònoma de Barcelona

Facultat de Ciències Econòmiques i Empresariales

Edifici B

08193-Bellaterra (Barcelona), Spain

Tel. 93 5811209

Fax 93 5812555

# **Governance Mechanisms in Spanish Financial Intermediaries**

**Rafel Crespi**

**Miguel A. García-Cestona**

**Vicente Salas**

Document de treball núm. 2002/9

La serie *documents de treball d'economia de l'empresa* presenta los avances y resultados de investigaciones en curso que han sido presentadas y discutidas en este departamento, no obstante las opiniones son responsabilidad de los autores. El documento no debe ser reproducido total ni parcialmente sin el consentimiento del autor o autores. Dirigir los comentarios y sugerencias directamente al autor, cuya dirección aparece en la página siguiente.

A Working Paper in the *documents de treball d'economia de l'empresa* series is intended as a mean whereby a faculty researcher's thoughts and findings may be communicated to interested readers for their comments. Nevertheless, the ideas put forwards are responsibility of the author. Accordingly a Working Paper should not be quoted nor the data referred to without the written consent of the author. Please, direct your comments and suggestions to the author, which address shows up in the next page.



**Governance Mechanisms in  
Spanish Financial Intermediaries**

**Rafel Crespi** \*  
Universitat de les Illes Balears

**Miguel A. García-Cestona** \*\*  
Universitat Autònoma de Barcelona

**Vicente Salas** \*\*\*  
Universidad de Zaragoza

---

\* Rafel Crespi  
Dep. Economia i Empresa  
Universitat Illes Balears (UIB)  
Campus Cra. Valldemossa. Km 7  
07071 Palma Mallorca, SPAIN  
Tf: +34 971 173273, Fax: +34 971 173426  
Email: Rafel.Crespi@uib.es

\*\* Miguel A. García-Cestona  
Dep. Economia de l'Empresa  
Universitat Autònoma de Barcelona (UAB)  
Campus Bellaterra. Edifici B.  
08193 Bellaterra (Barcelona), SPAIN  
Tel. + 34 93 5812147, Fax + 34 93 5812555  
Email: cestona@selene.uab.es

\*\*\* Vicente Salas  
Dep. Economía de la Empresa  
Universidad de Zaragoza  
Dr. Cerrada 1, 5005 Zaragoza, SPAIN  
Tel. + 34 976 761803  
Email: vsalas@posta.unizar.es

## **Abstract**

This paper examines the governance of Spanish Banks around two main issues. First, does a poor economic performance activate those 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? Our results show that a bad performance does activate governance mechanisms in banks, although for the case of Savings Banks intervention is confined to a merger or acquisition. Nevertheless, the distinct ownership structure of Savings Banks does not fully protect non-performing banks from disappearing. Product-market competition compensates for those weak internal governance mechanisms that result from an ownership form which gives voice to several stakeholder groups.

JEL classification: G21, G34 and G38

Keywords: Corporate governance, commercial and savings banks, executive turnover, mergers and acquisitions

# Governance Mechanisms in Spanish Financial Intermediaries

## 1. Introduction

This paper presents empirical evidence on how effective internal governance mechanisms are at the time of disciplining non-performing managers and directors of Spanish Commercial Banks and Savings Banks. In Spain, Commercial Banks are shareholder-oriented corporations while Savings Banks are non-profit institutions where control is shared among multiple interest groups. Our paper provides evidence on how corporate governance works in those two different institutional regimes that compete with each other.

As Prowse (1997) indicates, research on corporate governance applied to financial intermediaries has been scarce. This research topic is particularly relevant because financial intermediaries are subject to a severe regulation that limits the effectiveness of external control mechanisms, such as the market for corporate control or competition in the product market. Consequently, corporate governance issues have to be addressed either by internal control mechanisms, such as the disciplinary role of the board of directors and the general assembly of shareholders, or by the regulatory authorities. There are several ways to evaluate how effective each control mechanism is. In this paper, we assume that internal control works properly if the probability of a significant board turnover, including the replacement of the chairman or the general manager of the bank, increases with bad economic performance<sup>1</sup>. We also view the friendly merger of banks as an intermediate control mechanism, something in between the internal mechanisms and the external ones. A merger needs to be approved by the different bank's governance bodies, but a merger also implies that a bank's assets are transferred to the acquiring company. For this scenario, we assume that good governance will

---

<sup>1</sup> Other ways of evaluating the quality of governance take into account the size and the composition of the board of directors, the separation between the CEO and the chairman seats in the board, the compensation schemes, etc.

predict that the likelihood that a bank merges and transfers its assets to another bank increases with a poor economic performance on the side of the acquired bank.

The “Cajas de Ahorros” (Savings Banks) control about half of the Spanish retail banking and compete among themselves, as long as with Commercial Banks for loans and deposits. As a distinctive feature, though, their profits must be either retained in the bank or invested in social and cultural programs. They can be viewed then as “commercial non-profit” firms in the sense of Hansmann (1996), and they pay, on average, 25 per cent of their profits to social programs while retaining the remaining profits for the organic growth of the institution. There is no market for corporate control of Savings Banks and both, the general assembly and the board, are composed by representatives of four stakeholders groups: public authorities, depositors, employees and founding entities. Compared with Commercial Banks, Spanish Savings Banks display several important institutional differences: they are not-for-profit organizations, they are totally isolated from the market for corporate control and, quite importantly, they must respond to the possible conflicts of interests among the various stakeholders with “voice” inside the governance mechanisms. This paper examines how such differences translate into economic performance, and it also provides evidence on the relationship between management turnover and mergers on one side and economic performance on the other.

Section 2 presents an overview of the general issues raised about governance in banking firms along with a description of the methodology used in the paper to evaluate how different governance mechanisms work for the case of Spanish financial intermediaries. Since governance mechanisms are expected to work differently depending on the ownership form, we formulate some hypothesis concerning the differences one can anticipate in section 3. The results of the empirical analysis on the relationship between governance interventions and the economic performance of banks are reported in sections 4 and 5. Finally, we summarize the main findings of the paper and derive some policy implications from them.

## **2. The corporate governance of banks**

As it happens in the case of commercial firms in general, the corporate governance of banks refers to the various methods by which bank owners attempt to induce managers



to implement value-maximizing policies<sup>2</sup>. These methods may be external to the firm, as the market for corporate control or the level of competition in the product and labor markets. But there are also internal mechanisms such as a disciplinary intervention by shareholders (proxy fights) or intervention from the board of directors. Finally, we consider the case of a friendly merger as an intermediate mechanism between the internal and the external ones.

Prowse (1997) notices that the specific regulation of banks reduces the effectiveness of external control mechanisms, making then the internal devices much more relevant. As a result, many of the lessons learnt from non-financial firms (based mainly in the use of external mechanisms) cannot just be extended to financial institutions.

When a bank comes under the threat of a takeover, the regulator must give its approval. This process takes longer time than the market approach and, furthermore, the regulator's decision will be based on minimizing the probability of bank failure, which is not the same objective as maximizing shareholder value. Competition in the product markets is another external device that helps to discipline managers. When revenues go down, managers in a non-competitive market might respond by increasing prices to compensate those lower revenues. In the presence of competitors, this is no longer an option. If a bank increased its prices, competitors would take advantage of the situation and steal market share from that firm, adding pressure on the bank's manager to adopt better decisions and not shirk on effort. Once again, the legal environment of the banking industry makes this competition mechanism not so efficient in comparison to the non-financial sector, and it can be better characterized by the presence of oligopolies.

The ownership structure and, more specifically, the role of large shareholders must be addressed too. Large banks present a very dispersed ownership structure when we compare them to non-banking firms. For example, in the US, and due to the Glass-Steagall Act, there was not possible for large corporations before the year 2000 to become shareholders of American banks. Although this was not the case in continental Europe, where some large companies have become shareholders of banks, their shareholdings are also far from relevant levels, due in part to the regulator's concerns.

---

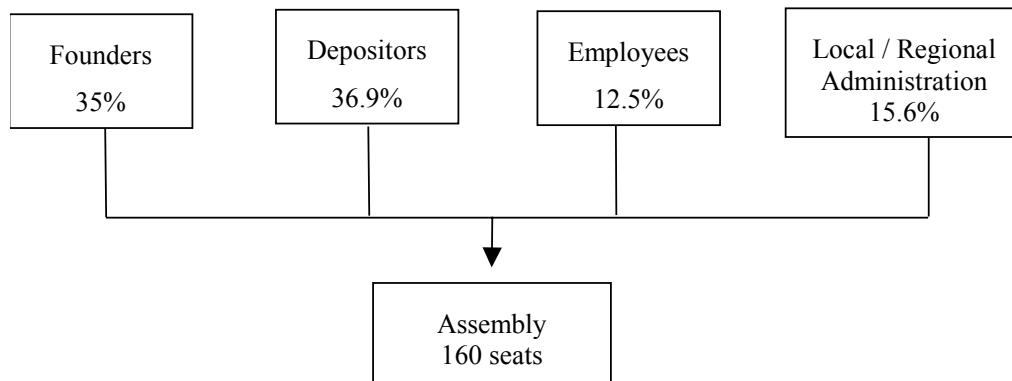
<sup>2</sup> For recent surveys on general corporate governance issues see Shleifer and Vishny (1997) and Tirole (2001)

For the case of Spain, there are at least four different ownership structures we can consider: Independent Commercial Banks, Subsidiaries of Independent Spanish Banks, Subsidiaries of Foreign Commercial Banks and, finally, Savings Banks. The first three types fall into the category of shareholder-oriented banks, although the ownership structure is much more dispersed among the Independent Banks. Subsidiaries, on the other hand, are typically one-hundred-percent owned by parent banks. Therefore, the agency problems are more likely to be observed in the case of Independent Banks than in their subsidiaries. For the remaining of the paper, we will treat national and foreign subsidiaries as a single category, as we could not find significant differences between the two in the empirical analysis we conducted.

Savings Banks are a very relevant institution within the Spanish banking system. Most of them were founded in the second half of the XIX century as a way of promoting popular savings. At that time, small savers distrusted private banks due to serious moral hazard problems and the lack of deposit insurance and banking regulations. The Spanish government itself lacked the necessary reputation to launch a government-backed bank as it happened in France, Portugal or other European countries in order to enhance popular savings. In fact, the government founded such a bank in the 1850's but it quickly ended up in a bankruptcy process. The first Spanish Savings Banks were created around the "Monte de Piedad", a thrifty institution with a solid reputation among small savers, and for several decades both institutions worked together on a complementary basis until the success of the Savings Banks on attracting resources clearly exceeded the capacity of the thrifty to use them.

Today, Savings Banks control about half of the Spanish retail banking and their market shares have been steadily increasing in the last decade. Savings Banks compete with each other and with Commercial Banks, and their profits are either retained or employed to provide funding to social programs. Their ownership form is a private foundation, with a board of trustees where representatives from regional authorities, city halls, workers, depositors and the founding entity seat. Figure 1 shows the composition of the general assembly (and of the board of directors) of a typical Spanish Savings Bank.

Table 1: Assembly composition for a typical Spanish Savings Bank



Savings Banks can be considered as stakeholder-oriented organizations, while Commercial Banks are shareholder-oriented companies. Those represented in 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. These differences make people to believe that the economic performance of Savings Banks should be worse than that of Commercial Banks, since more clear and well defined property rights should imply more pressure on the managerial team to increase profits. However, the empirical evidence shows that Savings Banks and Commercial Banks have similar efficiency levels, Pastor (1995), Grifell and Lovell (1997) and Lozano (1998), contradicting the previous hypothesis. One possible conclusion for this evidence might be that, after all, ownership and governance are not so decisive for a firm's economic performance when that firm is subject to sufficient product market competition, as it is the case in the Spanish retail banking. Nevertheless, before drawing any conclusion we should first provide evidence on how governance mechanisms work for the two types of banks.

### 3. Methodology and Hypothesis

As it was indicated above, we are interested in testing the effectiveness of those governance mechanisms different from the market for corporate control (hostile takeovers) on Spanish banks. The underlying general assumption is that governance becomes more effective if we observe that the likelihood of a top manager turnover and/or executive directors turnover increase with a poor economic performance of the bank. The effectiveness of internal governance mechanisms has been evaluated in this way before for samples of non-financial firms in different countries: Warner et al (1988)

for the US, Kaplan (1994) for Germany, Kaplan and Minton (1994) for Japan, Franks et al (2001) for the UK, or Gispert (1998) for the Spanish case. All these papers confirm an inverse relation between absolute measures of economic performance, such as ROA, ROE or shareholder market returns, and the likelihood of changes in the position of CEO and/or general manager of the firm.

Several authors have also applied this methodology for the case of banking firms. For example, Barro and Barro (1990) use logit regressions to explain the probability of CEO departure as a function of stock returns of the bank for a sample of large US commercial banks over the period 1982-1987 after adjusting the data for peer-group returns. Anderson and Campbell (2000), on the other hand, propose the lack of sensitiveness between executive turnover and the performance of the Japanese banks as an evidence of the banking sector's inefficiencies in that country. Prowse (1995) evaluates the governance of US banks by examining the relationship between the probability that each one of four control mechanisms (management turnover, hostile takeovers, friendly mergers and regulatory intervention) was activated in relation with the economic performance of the banks. Furthermore, Prowse looks at the frequency of these mechanisms for the case of banking firms, and compare them with the rates observed in the non-banking sectors. He finds then that control mechanisms are activated less frequently in the banking sector than in other economic sectors. Moreover, there appears to be some substitution between regulation and other governance mechanisms for the case of banks.

In this paper we are interested in providing some comparative empirical evidence from a country, Spain, that enjoys a different legal and institutional structure with respect to Japan or the US. Furthermore, we 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.

Subsidiaries of other banks, either national or foreign, are likely to be subject to closer supervision by their "principal" than independent banks. In the first case, the parent company has full control over this subsidiary and it will likely perform the internal supervision of activities that limit the discretion of managers of a subsidiary to act against the principal's interest. In more formal terms, subsidiaries are likely to operate

under a “behavioral control” mechanism, while independent banks, where shareholders are dispersed and lack the appropriate incentives to directly supervise the activity of the managers, are more likely to use “performance based control” to align the interests of managers and shareholders<sup>3</sup>. If this was the case we should observe for the sample of Independent Banks a stronger relation between the activation of mechanisms, such as management turnover and merger activity, and bad economic performance, in comparison with what happens in the sample of subsidiaries.

*H1. For Independent Banks, the relationship between the likelihood of control intervention and bad performance becomes stronger than for the sample of subsidiaries.*

The multiple stakeholder orientation of Savings Banks along with the nature of each one of the interest groups represented in the governance bodies (general assembly, board of directors and committees) create the conditions for a 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 most often political representatives from the different political parties. Finally, many of the founding institutions are public. All these features suggest that managers and workers may have a dominant role in the bank, although subject to the law, the competition of other banks and the supervision by the Central Bank.

If governance bodies, such as the general assembly and the board of directors, have a hard time to discipline bad performing managers because the later have more effective power, then bad performance, when it occurs, will have to be addressed in a different manner. We postulate that in the case of Savings Banks this alternative mechanism will be mergers and acquisitions. Therefore, we expect mergers to be 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 among Commercial Banks.*

---

<sup>3</sup> Performance based control is more likely when supervision costs are high, as it is the case when share ownership is rather dispersed. Behavioral control can be applied in subsidiaries of other banks because the parent company becomes the only shareholder and enjoys hierarchical power over the subsidiary managers.

*b) Among Savings Banks, mergers are the main governance mechanism to correct for a poor economic performance.*

#### **4. Empirical analysis**

We have collected data for all banking institutions operating in Spain during the period 1986 through the year 2000. The Spanish Association of Private Banks (AEB) provided the data for Commercial Banks, while the data concerning Savings Banks came from the Spanish Federation of Savings Banks (CECA). For the case of Commercial Banks, subsidiaries of foreign banks are well identified by the organizations that collect the data, while additional work was done to distinguish between the groups of independent banks and subsidiaries of domestic banks. We have a total of 1894 bank/year observations<sup>4</sup> for the time period covering 1986 through 2000. This means that the number of banks in a representative year is 135.

For each bank we collected data concerning the interventions of governance mechanisms, ownership type, size and economic performance. Four governance interventions are considered in our study: (i) a turnover of at least fifty per cent of executive directors apart from the chairman of the board and the CEO (or general manager); (ii) the removal of the chairman of the board; (iii) the removal of the CEO of the bank; and (iv) a merger or an acquisition by another bank during a particular year. For the four scenarios, the variables are recorded as a zero-nonzero value, with the value of zero meaning no intervention has occurred and a positive value otherwise. The final values depends on the type of intervention<sup>5</sup>.

According to their ownership type, we classify the banks in the sample into three groups: Independent Commercial Banks, Dependent Banks and Savings Banks. The first group contains banks under shareholder control, most of them quoted in the Spanish Stock Market and therefore with a high dispersion in terms of ownership.

---

<sup>4</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).

<sup>5</sup> From the whole data sample, we identify first the bank-year observations for which a merger or acquisition occurs. Then we assign the value 4 to these cases. With the remaining data, we proceed to search for the bank-year observations that have changed the CEO. A value 3 is then assigned to them. Next, we check for those bank-year observations that have replaced the chairman of the board, and we assign a value 2 to them. Then we search in the remaining observations for those cases where at least a 50% of the board members have changed from the previous year. The "board change" variable takes here the value 1. The remaining bank-year observations correspond to non-

Dependent Banks are subsidiaries of other banks, either Spanish or foreign. All their shares are owned by their parent companies, and therefore they can be considered as divisions of a larger firm. Finally, Savings Banks are stakeholder-oriented organizations, as it was indicated earlier.

Size is introduced as a control variable in our study, since it is often correlated with other unobserved variables such as asset diversification, managerial abilities and so on. This variable is measured by the amount of bank total assets at the end of the year previous to a governance intervention.

Concerning economic performance, this variable is measured in terms of accounting profits divided by total assets of the bank. We favor return on assets (ROA) over return on equity (ROE) because the later is affected by the capital asset ratio of the bank, which differs substantially among the banks in the sample. Two measures of accounting profits are also used: total net profit after taxes and profits from regular banking operations before taxes. As it is well known, see Saurina (1997), Spanish banks tend to smooth accounting profits by buying and selling assets such as shares of firms in which they have previously invested. Profits from banking operations are less affected by the capital gains (or losses and provisions) of financial and other investments than the variable total net profits and, in this sense, we think it may be a better indicator of the economic efficiency of the banks. Both variables are referred to the year before the governance intervention takes place. The variable  $ROA_{t-1}$  will indicate then total net profits over total assets in year  $t-1$ , and  $IOA_{t-1}$  will indicate the amount of profits from banking operations over total assets, also referred to year  $t-1$ .

Table 1 presents the descriptive statistics for the whole sample of banks and the variables used in the empirical analysis. Separate columns are also reported for Independent Commercial Banks and for Savings Banks. Spanish financial intermediaries manage, on average, 3.5 billion of Euros in assets and achieve a 1.393 percent return on those assets. Of these, 0.907 points come from regular banking operations and the rest from financial investments and extraordinary profits. Banks change at least fifty per cent of their executive directors every five years (that is, board

---

intervention cases, and have a 0 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.

changes occur on 19.6 percent of the cases). The average time in office for a chairman of the board is less than 7 years (chairman removal of 15.9 per cent), which is longer than the CEO's time in office, 4.4 years (and a 22.9 per cent of removal). Finally, mergers and acquisitions only amount to 4.2 per cent of the interventions in our sample.

Table 1. 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 ( $10^9$ ) €	2105	3.523	10.200	402	9.299	19.700	859	3.453***	7.187
$ROA_{(t-1)} \times 100$	1792	1.393	3.040	355	1.127	2.475	727	1.283*	0.985
$IOA_{(t-1)} \times 100$	1792	0.907	2.291	355	0.590	1.738	727	0.915***	0.612
Board change	1911	0.196	0.228	371	0.145	0.197	766	0.208***	0.236
Chairman removal	1894	0.159	0.366	371	0.092	0.289	766	0.164***	0.371
CEO removal	1615	0.229	0.420	371	0.264	0.441	487	0.131***	0.338
Merger/Acquisition	2105	0.042	0.201	402	0.032	0.009	859	0.0547**	0.008

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

The significance levels reported here refer to the differences between Independent Commercial Banks and Savings Banks.

Spanish Banks are smaller than banks used in similar samples referring to Japan, Anderson and Campbell (2000), and USA, Prowse (1995), and they earn higher return on their investment. As table 2 indicates, board membership changes are more frequent in Spanish banks than in US banks, and similar to the observed figures for Japan. The average time in office for a CEO is lower in Spain than in the samples used in other countries (that is, more frequent changes of CEOs in Spain), while mergers and acquisitions of banks are less frequent in our sample than in other studies<sup>6</sup>.

<sup>6</sup> Obviously, this is a very rough comparison and it is important to mention, that the number of years differ among them and do no match year by year.



**Table 2. Mechanisms of control. Governance intervention ratios.**

Related studies	CEO turnover	Executive turnover	Merger/ Acquisition
<i>Anderson and Campbell (2000)</i> 111 Japanese banks 1878 bank/years, 1977-1996	17.8%	20.3%	-
<i>Barro and Barro (1990)</i> 83 US banks, 467 CEO years, 1982-87	12.8%	-	-
<i>Prowse (1995)</i> 234 US bank holdings, 1987-1992	-	10.2%	12.4%
<i>Our data</i> 1894 Spanish bank/years, 1986-2000	22.9%	19.6%	4.2%

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 negatively their economic performance. 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 for 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.

## **5. Governance intervention and economic performance**

Some preliminary evidence is shown in table 3, where the economic performance of banks with some governance intervention and banks with no intervention are compared. For both the Dependent and Independent Commercial Banks cases more evidence is formed in favor of the hypothesis that intervention is triggered by low performance, This is more evident when measured by the IOA variable (returns from regular banking operations). Concerning Savings Banks, no difference is detected between the two subsamples.

Table 3. Average ROA and IOA by bank type and governance intervention.

	ROA(t-1) x 100		IOA(t-1) x 100	
	Non-intervention	Governance intervention	Non-intervention	Governance intervention
Dependent banks	1.787	1.385	1.204	0.869*
Independent Commercial Banks	1.211	0.964	0.808	0.169***
Savings Banks	1.249	1.351	0.929	0.915

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

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

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

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 model where the dependent variable considers five different situations: no intervention, board change, replacement of the chairman, CEO removal and merger or acquisition. As explanatory variable we use the bank performance, along with the ownership form (Dependent Banks, Independent Commercial Banks and Savings Banks), the size of the bank and the time period dummies. To test for the presence of differences for different types of ownership, we use dummy variables for each form of ownership that interact with the explanatory variables. The variable  $D_1$  takes the value one for the case of subsidiaries and zero otherwise, while  $D_2$  is used for Savings Banks and adopts the value one only for that type of bank. Thus, we use the following model,

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

To estimate this model, we exclude the variable “no governance intervention” from the dependent variable categories, and the ownership type “Independent Commercial Banks” from the explanatory variables. Using this notation, we can rewrite our initial hypotheses as follows,

$$H1. \beta_1 + \beta_{11} > \beta_1 \Leftrightarrow \beta_{11} > 0$$

$$H2. a) \beta_1 + \beta_{12} > \beta_1 \Leftrightarrow \beta_{12} > 0$$

These hypotheses earlier formulated imply that we expect a negative sign for the coefficient  $\beta_1$  (that is, a better performance means a lower likelihood of intervention). But we also expect that the coefficient of the multiplicative variable  $\text{performance} \times \text{form of ownership}_i$  be positive, which means that we expect a weaker relationship between a bad performance and governance intervention for the case of Dependent Banks and Savings Banks, than in 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.

Table 4 shows the results of the multinomial logit model. Overall, the statistical fit of the model is good, as the log-likelihood statistics indicate. For Savings Banks, the positive intercept values in the replacement of the chairman and in the Merger variables confirm that, after controlling for size and performance, those 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, we obtain that the variable size increases the likelihood of board change and CEO removal. Concerning ownership forms, the likelihood of a governance intervention seems to be independent of the size of the bank, except for the case of Independent Banks and mergers 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 variables  $ROA_{t-1}$  and  $IOA_{t-1}$  in the last three columns of table 4.

Table 4. Multinomial Logit.  
Types of governance intervention for Independent Banks, Dependent Banks and Savings Banks.  
Omitted dependent variable: No control. Omitted ownership form: Independent Banks.

	Board turnover		Chairman removal		CEO replacement		Merger / acquisition	
Intercept	-3.067*** (0.64)	-3.369*** (0.687)	-2.589*** (0.509)	-2.888*** (0.525)	-0.936*** (0.292)	-0.653** (0.296)	-24.692*** (0.784)	-24.782*** (0.821)
Dependent banks	-0.386 (0.5)	-0.162 (0.494)	0.422 (0.431)	0.755* (0.429)	0.084 (0.204)	-0.052 (0.193)	-0.372 (0.494)	0.09 (0.464)
Savings banks	-0.006 (0.472)	0.441 (0.518)	0.907** (0.434)	1.575*** (0.445)	-1.424*** (0.267)	-1.602*** (0.338)	0.704 (0.561)	1.18** (0.473)
Size (total assets) <sub>(t-1)</sub>	-0.012 (0.03)	-0.011 (0.029)	-0.032 (0.043)	-0.029 (0.042)	0.004 (0.008)	0.005 (0.008)	0.021 (0.014)	0.024* (0.014)
Size x Dependent banks	0.371** (0.172)	0.355** (0.173)	0.128 (0.152)	0.137 (0.151)	0.167** (0.085)	0.173** (0.084)	0.23 (0.181)	0.23 (0.18)
Size x Savings banks	0.011 (0.042)	0.016 (0.04)	-0.051 (0.062)	-0.057 (0.063)	0.025 (0.016)	0.026 (0.016)	-0.113 (0.083)	-0.128 (0.085)
$ROA_{(t-1)}$	-0.042 (0.157)		-0.68** (0.267)		-0.017 (0.06)		-0.73** (0.302)	
$ROA_{(t-1)}$ x Dependent banks	0.102 (0.159)		0.666** (0.27)		-0.035 (0.067)		0.634** (0.311)	
$ROA_{(t-1)}$ x Savings Banks	0.304 (0.196)		0.848*** (0.291)		0.118 (0.124)		0.28 (0.435)	
$IOA_{(t-1)}$		0.109 (0.162)		-0.461*** (0.156)		-0.27*** (0.093)		-0.539*** (0.175)
$IOA_{(t-1)}$ x Dependent banks		-0.05 (0.166)		0.478*** (0.16)		0.206** (0.099)		0.459** (0.193)
$IOA_{(t-1)}$ x Savings banks		-0.051 (0.328)		0.406* (0.244)		0.466* (0.268)		0 (0.328)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log likelihood	-1768.70 -1767.2***							
LR chi2	-1768.70 321.09***							

Standard errors are reported inside the parentheses.  
Significance levels: \*10%, \*\*5%, \*\*\*1%.

In general, the coefficient of  $IOA_{t-1}$  has a higher statistical significance than the  $ROA_{t-1}$  coefficient, and for the case of CEO removal the former is the only statistically

significant coefficient. In that sense, the profit measure which is harder to “smooth” by the management of the bank, appears to be more informative about the economic performance of the bank. We report the coefficients for the two performance variables, but we will comment now only 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  $\text{performance} \times \text{Dependent Banks}_i$  presents a positive coefficient, and in absolute terms the value of such coefficient is similar to the one estimated above for the performance variable. By construction, the relevant coefficient for the sample of Dependent Banks is the sum of those two coefficients,  $\beta_1 + \beta_{11}$ , which means that for the Dependent Banks in our sample, governance intervention is not associated with economic performance. This result is consistent with our first hypothesis *H1* and confirms that subsidiaries are more likely to be subject to “behavioral control” rather than to “performance control”.

For the sample of Savings Banks, the coefficient of  $\text{performance} \times \text{Savings Banks}_i$  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 are not associated to economic performance of the bank. On the other hand, poor economic performance may activate more likely a merger or acquisition as a disciplinary device. This evidence corroborates that mergers become the main governance mechanism to fix economic inefficiencies in the case of Savings Banks and, in that way, it confirms our hypothesis *H2b*.

## 6. Conclusion

This paper examines the effectiveness of several governance mechanisms in the Spanish banking sector. Although we acknowledge that market-based mechanisms, such as takeovers and product market competition, can work for the banking sector in the same fashion as for other sectors of the economy, we find that, in practice, these mechanisms may be weaker in the banking sector. The reason is that the presence of regulatory

intervention limits the effectiveness of the take-over market and the intensity of rivalry, due to certain requirements concerning ownership of banks and the opening of new banks within a market. An empirical question emerges from this situation: to check if 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, along with four control mechanisms, changes in the board, removal of the Chairman, removal of the CEO and mergers/acquisitions. One important research question is to compare the different levels of governance effectiveness between Savings Banks and Commercial Banks, given the special ownership and governance structure of the former.

Our results show that governance interventions in the Spanish banking industry occur with a frequency rate comparable to the ones observed in other countries, such as Japan or the US, where similar data are available. The exception comes from the merger/acquisition mechanism, 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 the Independent Commercial Banks than in the 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 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 becomes more “behavioral” than “performance-based”.

For the case of Savings Banks, this negative association between governance control and economic performance can be only observed for the case of Mergers. The unique governance structure of Spanish Savings banks, where several stakeholder groups are

represented in the General Assembly and in the Board of Directors, does not seem very effective at the time of disciplining executive directors and top managers when the economic performance becomes low. This would confirm the presumption that managers and workers of the Savings Banks, the so-called insiders, hold power within these organizations. Or, from a different perspective, 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 about this) and this correction appears to be quite effective since, at the end, the average economic performance of Savings Banks is better than that of the Commercial Banks. This evidence seems to suggest that, at least in Spain, competition in retail banking remains high besides regulatory intervention. Banks that make wrong decisions and/or manage in an inefficient way their resources 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.

So far, mergers among Spanish Savings Banks have been only possible when those Savings Banks involved belonged to the same region (State or “Comunidad Autónoma”). If mergers must continue 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 an effective disciplinary mechanisms also for Independent Commercial Banks, the recommendation to remove the obstacles to interstate mergers applies not only to states or autonomous regions within a country, but also to international mergers across the European Union.

## Bibliography

Anderson, C. and T. Campbell II (2000). "Restructuring the Japanese Banking System: Has Japan Gone Far Enough?" *International Review of Financial Analysis*, vol. 9, no. 2. pp. 197-218.

Barro, J and Barro, R.J. (1990). "Pay, performance and turnover of bank CEOs". *Journal of Labor Economics* 8, pp. 448-481.

Franks, J., C. Mayer and L. Renneboog (2001). "Who disciplines management in poorly performing companies?" *Journal of Financial Intermediation* 10, pp. 209-248.

Gispert, C. (1998). "Board turnover and firm performance in Spanish companies", *Investigaciones Económicas*, vol. 22(3), pp. 517-536

Grifell-Tatjé, E. and Lovell, C. (1997). "The Sources of Productivity Change in Spanish Banking", *European Journal of Operational Research*, 98, pp. 364-380.

Hansmann, H. (1996): "The ownership of enterprise". Harvard University Press. Cambridge, MA.

Kaplan, S. (1994). "Top executives, turnover, and firm performance in Germany", *Journal of Law, Economics and Organization* 10, pp. 142-159.

Kaplan, S. and B. Minton (1994). "Appointments of Outsiders to Japanese Boards: Determinants and Implications for Managers", *Journal of Financial Economics* 36, 2, pp. 225-258.

La Porta, R, F. Lopez-de-Silanes, A. Shleifer and R. Vishny (1998a). "Law and Finance", *Journal of Finance*.

La Porta, R, F. Lopez-de-Silanes, A. Shleifer and R. Vishny (1998b). "Ownership Around the World", *Journal of Political Economy*.



- Lozano, A. (1998). "Efficiency and Technical Change for Spanish Banks", *Applied Financial Economics*, 8, pp. 289-300.
- Melle, M., Maroto, J.A. (1999). "Una Aplicación del Gobierno de Empresas: Incidencia de las Administraciones Publicas en las Decisiones Asignativas de las Cajas de Ahorros Españolas", *Revista Europea de Dirección y Economía de la Empresa*, 8, pp. 9-40.
- Mork, R.; Shleifer, A. and Vishny, R. (1989). "Alternative mechanism for corporate control". *American Economic Review*. Vol 79, 4, pp. 842-852.
- Pastor, J. (1995). "Eficiencia, cambio productivo y cambio técnico en los bancos y cajas de ahorro españolas: un análisis de la frontera no-paramétrica", *Revista Española de Economía*, 12(1), 35-73.
- Prowse, S. (1995). "Alternative methods of corporate control in commercial banks". *Federal Reserve Bank of Dallas Economic Review*, Third quarter, pp. 24-36.
- Prowse, S. (1997). "The Corporate Governance System in Banking: What do We Know?", *BNL Quarterly Review*, March, pp. 11-40.
- Salas, V. (1999). *El Gobierno de la Empresa*. Centre d'Economia Industrial, Barcelona.
- Saurina, J. (1997). "Desregulación, Poder de Mercado y Solvencia en la Banca Española", *Investigaciones Económicas*, 21, 3-28.
- Shleifer A. and R. Vishny (1997). "A Survey of Corporate Governance" *Journal of Finance*, vol. 52, 2, pp. 737-783.
- Tirole, J. (2001). "Corporate Governance," *Econometrica*, 69 (1), pp. 1-35.
- Warner, J.; Wats, R.L. and Wruck, K. (1988): "Stock prices and top management changes". *Journal of Financial Economics*, 20, pp. 461-492.

## Issues:

- 95/1 *Productividad del trabajo, eficiencia e hipótesis de convergencia en la industria textil-confección europea*  
Jordi López Sintas
- 95/2 *El tamaño de la empresa y la remuneración de los máximos directivos*  
Pedro Ortín Ángel
- 95/3 *Multiple-Sourcing and Specific Investments*  
Miguel A. García-Cestona
- 96/1 *La estructura interna de puestos y salarios en la jerarquía empresarial*  
Pedro Ortín Ángel
- 96/2 *Efficient Privatization Under Incomplete Contracts*  
Miguel A. García-Cestona  
Vicente Salas-Fumás
- 96/3 *Institutional Imprinting, Global Cultural Models, and Patterns of Organizational Learning: Evidence from Firms in the Middle-Range Countries*  
Mauro F. Guillén (The Wharton School, University of Pennsylvania)
- 96/4 *The relationship between firm size and innovation activity: a double decision approach*  
Ester Martínez-Ros (Universitat Autònoma de Barcelona)  
José M. Labeaga (UNED & Universitat Pompeu Fabra)
- 96/5 *An Approach to Asset-Liability Risk Control Through Asset-Liability Securities*  
Joan Montllor i Serrats  
María-Antonia Tarrazón Rodón
- 97/1 *Protección de los administradores ante el mercado de capitales: evidencia empírica en España*  
Rafael Crespi i Cladera
- 97/2 *Determinants of Ownership Structure: A Panel Data Approach to the Spanish Case*  
Rafael Crespi i Cladera
- 97/3 *The Spanish Law of Suspension of Payments: An Economic Analysis From Empirical Evidence*  
Esteban van Hemmen Almazor
- 98/1 *Board Turnover and Firm Performance in Spanish Companies*  
Carles Gispert i Pellicer
- 98/2 *Libre competencia frente a regulación en la distribución de medicamentos: teoría y evidencia empírica para el caso español*  
Eva Jansson
- 98/3 *Firm's Current Performance and Innovative Behavior Are the Main Determinants of Salaries in Small-Medium Enterprises*  
Jordi López Sintas y Ester Martínez Ros

- 98/4 *On The Determinants of Export Internalization: An Empirical Comparison Between Catalan and Spanish (Non-Catalan) Exporting Firms*  
Alex Rialp i Criado
- 98/5 *Modelo de previsión y análisis del equilibrio financiero en la empresa*  
Antonio Amorós Mestres
- 99/1 *Avaluació dinàmica de la productivitat dels hospitals i la seva descomposició en canvi tecnològic i canvi en eficiència tècnica*  
Magda Solà
- 99/2 *Block Transfers: Implications for the Governance of Spanish Corporations*  
Rafael Crespi, and Carles Gispert
- 99/3 *The Asymmetry of IBEX-35 Returns With TAR Models*  
M.<sup>a</sup> Dolores Márquez, César Villazón
- 99/4 *Sources and Implications of Asymmetric Competition: An Empirical Study*  
Pilar López Belbeze
- 99/5 *El aprendizaje en los acuerdos de colaboración interempresarial*  
Josep Rialp i Criado
- 00/1 *The Cost of Ownership in the Governance of Interfirm Collaborations*  
Josep Rialp i Criado, i Vicente Salas Fumás
- 00/2 *Reasignación de recursos y resolución de contratos en el sistema concursal español*  
Stefan van Hemmen Alamazor
- 00/3 *A Dynamic Analysis of Intrafirm Diffusion: The ATMs*  
Lucio Fuentelsaz, Jaime Gómez, Yolanda Polo
- 00/4 *La Elección de los Socios: Razones para Cooperar con Centros de Investigación y con Proveedores y Clientes*  
Cristina Bayona, Teresa García, Emilio Huerta
- 00/5 *Inefficient Banks or Inefficient Assets?*  
Emili Tortosa-Ausina
- 01/1 *Collaboration Strategies and Technological Innovation: A Contractual Perspective of the Relationship Between Firms and Technological Centers*  
Alex Rial, Josep Rialp, Lluís Santamaria
- 01/2 *Modelo para la Identificación de Grupos Estratégicos Basado en el Análisis Envolvente de Datos: Aplicación al Sector Bancario Español*  
Diego Prior, Jordi Surroca.
- 01/3 *Seniority-Based Pay: Is It Used As a Motivation Device?*  
Alberto Bayo-Moriones.
- 01/4 *Calidad de Servicio en la Enseñanza Universitaria: Desarrollo y Validación de una Escala de Medida.*  
Joan-Lluís Capelleras, José M<sup>a</sup> Veciana.

- 01/5 *Enfoque Estructural vs. Recursos y Capacidades: Un Estudio Empírico de los Factores Clave de Éxito de las Agencias de Viajes en España.*  
Fabiola López-Marín, José M.<sup>a</sup> Veciana.
- 01/6 *Opción de Responsabilidad Limitada y Opción de Abandonar: Una Integración para el Análisis del Coste de Capital.*  
Neus Orgaz.
- 01/7 *Un Modelo de Predicción de la Insolvencia Empresarial Aplicado al Sector Textil y Confección de Barcelona (1994-1997).*  
Antonio Somoza López
- 01/8 *La Gestión del Conocimiento en Pequeñas Empresas de Tecnología de la Información: Una Investigación Exploratoria.*  
Laura E. Zapata Cantú.
- 01/9 *Marco Institucional Formal de Creación de Empresas en Catalunya: Oferta y Demanda de Servicios de Apoyo*  
David Urbano y José María Veciana.
- 02/1 *Access as a Motivational Device: Implications for Human Resource Management.*  
Pablo Arocena, Mikel Villanueva.
- 02/2 *Efficiency and Quality in Local Government. The Case of Spanish Local Authorities*  
M.T. Balaguer, D. Prior, J.M. Vela
- 02/3 *Single Period Markowitz Portfolio Selection, Performance Gauging and Duality: A variation on Luenberger's Shortage Function*  
Walter Briec, Kristiaan Kerstens, Jean Baptiste Lesourd.
- 02/4 *Innovación tecnológica y resultado exportador: un análisis empírico aplicado al sector textil-confección español*  
Rossano Eusebio, Àlex Rialp Criado
- 02/5 *Caracterización de las empresas que colaboran con centros tecnológicos*  
Lluís Santamaria, Miguel Ángel García Cestona, Josep Rialp
- 02/6 *Restricción de crédito bancario en economías emergentes: el caso de la PYME en México*  
Esteban van Hemmen Almazor
- 02/7 *La revelación de información obligatoria y voluntaria (activos intangibles) en las entidades de crédito. Factores determinantes.*  
Gonzalo Rodríguez Pérez
- 02/8 *Measuring Sustained Superior Performance at the Firm Level.*  
Emili Grifell - Tatjé, Pilar Marquès - Gou
- 02/9 *Governance Mechanisms in Spanish Financial Intermediaries*  
Rafel Crespi, Miguel A. García-Cestona, Vicente Salas