# Governance, human capital and politicisation of Spanish banks

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#### ABSTRACT

Before the 2007 financial crisis, Spanish savings banks (Cajas) and commercial banks had shared, almost equally, the Spanish market for years. By 2012, the stakeholder-oriented Cajas had disappeared. We study if these different outcomes of Cajas and commercial banks respond to different ownership structures, governance practices and top managers' human capital. Most of the previous debate has focused on the political affiliation of Cajas' managers. We contribute to the debate by using broader measures of banks' performance and by manually collecting chairman's human capital (through proxies such as chairman's experience, education, and political affiliation) for both bank types.

We find that commercial banks took more risks in pre-crisis years and showed better risk-management than Cajas during the crisis. We find no evidence of the influence of chairman's political affiliation on banks' performance, but chairman's firm experience and certain levels of education did have an impact on banks' performance, showing that managers' human capital deserves more attention.

Finally, we analyse deeper Cajas-stakeholders' participation, and while the presence of politicised seats in the governing bodies have no significant effects, larger employee participation or depositors' involvement could have helped to improve the resilience of these stakeholder organisations during the crisis.

## 1. Introduction

The Spanish savings banks (*Cajas de Ahorros*, or *Cajas*) have been so heavily affected by the 2007 financial crisis that most of them disappeared by the end of 2012. This collapse was preceded by similar problems in other countries (Ahrens et al., 2011; Erkens et al., 2012). Nevertheless, there were important differential elements in the Spanish case. First, savings banks had enjoyed an apparent great performance previous to the crisis and, second, they held half of the market share. Out of the 45 *Cajas* present in 2007, only 12 of them remained by the end of 2012. In contrast with *Cajas*, most Spanish commercial banks have withstood the crisis in a successful way. We include a summary on the restructuring of the Spanish banking sector between 2008 and 2012 in Appendix 1. The table shows that the restructuring involved 43 out of the 45 *Cajas*.

Paradoxically, only the two smallest *Cajas*, Caixa Ontinyent and Caixa Pollença, were not involved in any restructuration process and they have maintained their own autonomy and their legal form. In contrast, out of the large Spanish commercial banks only three of them were absorbed (i.e., Banco de Valencia, Banesto and Banco Pastor). Traditionally, the Spanish commercial banks had been a more concentrated group than *Cajas*.

Although these two types of banks had coexisted in the market for many years, they have experienced very different outcomes after the last crisis. Our aim is to assess if this difference responds to governance practices and/or their chairmen's human capital. First, we test if there are differences in terms of the Cajas' performance with respect to commercial banks and, later, among Cajas themselves. Some authors (Cuñat & Garicano, 2010; García-Marco & Robles-Fernández, 2008; García-Meca & Sánchez-Ballesta, 2014) have pointed out that neither the formal governance institutions (i.e., the composition of the different governance bodies), nor the real governance (i.e., the role played by politicians) explain these differences in banks' results. To carry out our analysis we make use of both an extended period data, covering both a boom period and the early years after the crisis, until Cajas' disappearance. We also explore the impact of human capital in this context. More specifically, we have collected information on some aspects of the chairman's human capital, such as previous banking and specific-firm experience, formal education, and political background, to get a better grasp of these important issues. The lack of data availability is one of the difficulties in these studies and our collected data is one of the contributions of the paper. Certainly, other alternative proxies for human capital are possible, and if our proxies matter, this will be a clear indication that top managers' human capital is relevant and more efforts should be paid to improve this variable, along with the stakeholder composition.

Some authors have already tested the effect of governance structure on financial firms' performance in different countries (e.g., Adams & Mehran, 2012; Pathan & Faff, 2013). Although this helps us to better appreciate the differences and commonalities among banks, one important problem with these international comparative studies (i.e., crosscountry studies) comes from the fact that they cover several countries and large geographic areas (e.g., Erkens et al., 2012; Ferri et al., 2015; Girardone et al., 2009; Iannotta et al., 2007). To make comparisons possible, they consider the largest and/or the listed banks only, introducing a bias that may offer an incomplete picture of the sector. In other studies, banking reality is oversimplified due to the inclusion of heterogeneous countries, or the joint analysis of many different types of financial firms. Through our emphasis on Spanish Cajas, that are banks with specific corporate governance and risk features, and its comparison with the Spanish commercial banks, we can go deeper in the analysis of these two organisational forms competing in the same institutional framework. Furthermore, we think some important lessons on governance and risk management can still be extracted for other countries where some type of non-commercial bank competes in the banking sector.

We find that commercial banks were, in general, more profitable than *Cajas*, although they incurred in more risk during the pre-crisis period. In addition, commercial banks have also shown a better performance during the crisis because they seem to have managed their own risks in a better way than *Cajas* in that period. Although many

*Cajas* performed well during the crisis, on average they did not, and these average results would justify the subsequent restructuring of the sector, confirming the different risk-taking behaviour models between commercial banks and *Cajas*, at least on average.



Figure 1. Assets (% over banks' total assets). Source: own elaboration from Bank of Spain data.



Figure 2. Loans (% over banks' total loans). Source: own elaboration from Bank of Spain data.

As shown in Figures 1 and 2, and prior to the credit crunch, more than 90% of the Spanish banking total assets were divided almost equally between commercial banks, for-profit banks controlled by shareholders, and savings banks, not-for-profit banks controlled by stakeholders, with a growing weight of the latter. Although several authors (Berger et al., 2016; Hopt, 2013) have highlighted bank ownership and governance as responsible for the causes and consequences of the financial crisis, there was no clear consensus on the reforms to be adopted by regulators to improve governance, as pointed out by Martín-Oliver et al. (2017). Thus, for example, while in the United Kingdom it was recommended that banks should focus exclusively on profit maximisation, both the Basel Committee and the European Commission proposed greater institutional diversity, being favourable towards different stakeholder groups.

On the other hand, the financial crisis affected the Spanish banking system, a previously praised example of institutional diversity, in a particularly intense way, causing the practical disappearance of savings banks. There is still a debate about whether the politicisation of the governing bodies of the Savings Banks was a determining factor (Andrés et al., 2018).

After the regulatory reforms, *Cajas* transformed into commercial banks, eliminating completely the previous institutional diversity. We analyse why *Cajas* suffered more damage than commercial banks during the crisis and show how differences in the governance and the top directors' human capital did play a role.

Our paper contributes to the scarce literature assessing the relationship between the human capital and governance dimensions in one side, and the banks' performance in the other side. We also provide additional knowledge of the reasons behind the collapse of an important number of Spanish banks after the crisis. On the one hand, we find that banks with a chairman with more years of previous banking experience, more years spent in the firm and a top degree in their education, performed better than banks without such chairman's profile. On the other hand, focusing on the level of politicisation of *Cajas*' governance, we find no evidence that a higher presence of politicised seats in the governing bodies implied worse profitability or higher risk-taking in our period. Furthermore, we contribute to the study of the resilience of a stakeholder-oriented organisation like *Cajas*, where the presence of employees and depositors could play a positive role during the crisis unlike the role played by the presence of politicians. Due to these results, we believe this paper have important implications for banking regulators and future supervisory policies beyond the Spanish case. Other countries with important stakeholder-oriented institutions should also consider these findings.

After this introduction, Section 2 provides an overview of the historic evolution and restructuring of the Spanish financial sector, especially for the case of *Cajas*. We also include a section (Section 3) describing the Spanish banks governance and our hypotheses, focusing mainly in *Cajas*. In this section, we also discuss our measures of the chairman's human capital and politicisation. Section 4 describes the collected data and the statistical methodology. Finally, section 5 presents the empirical findings, and the paper ends with a section containing conclusions and future challenges.

## 2. Evolution and restructuring of the Spanish financial sector

There had been three traditional players in the Spanish banking sector: commercial banks, *Cajas* and credit cooperatives. During the decade 2000–2009, commercial banks and *Cajas* jointly accounted for more than 90% of the Spanish credit market, while credit cooperatives held the remaining share (Bank of Spain, 2011). Figures 1 and 2 show the evolution of total assets and loans held by *Cajas* and commercial banks as a percentage of the total amounts for the period.

Although many Cajas had a long history dating back to the late XIX and early XX centuries, it was in the year 1977 when an important series of reforms launched the process of liberalisation of the Spanish financial system (Royal Decree 2290/1977). After that reform, Cajas were no longer publicly managed and highly controlled institutions and they started to compete directly with commercial banks. Before these legal changes, their activity was mainly focused on attracting deposits, and with the liberalisation they competed with commercial banks to provide credit in different forms. By 1988 this trend was further strengthened. Until that year, Cajas were geographically constrained to specific regions, something that was often reflected in their name but, after some important attempts by the largest savings bank, La Caixa, a 1988 Royal Decree (Real Decreto 1582/1988) allowed Cajas to open branches beyond their territories. Since that moment, the Cajas began to expand geographically and even displaced commercial banks from their traditional markets and businesses, especially in retail banking (Azofra- Palenzuela & Santamaría-Mariscal, 2004). Meanwhile, the large Spanish commercial banks were more involved in their international expansion, first across South America and later in Europe.

As a result, the commercial banks strategy closed almost 4,000 branches in Spain during the 1990s while, at the same time, they strengthened their international areas of business (where, incidentally, *Cajas* could not compete). Due to these strategic interactions with the commercial banks, *Cajas* multiplied their presence in Spain, opening new branches all over the country. In less than 25 years, *Cajas* doubled their numbers, from 12,547 branches in 1985 to 24,985 branches in 2008, the year in which they reached the peak (Sagarra et al., 2018). From a strategic point of view, this territorial expansion of *Cajas* was based in their choice of a proximity banking policy, oriented to attract and enhance the loyalty of small customers, focusing on mortgage lending as a pivotal product. Furthermore, the peculiar legal form and ownership structure of *Cajas* (i.e., no formal owners) prevented their acquisition by larger commercial banks.

The arrival of the 2007–2008 financial crisis and the subsequent burst of the Spanish real state bubble changed the whole picture. Many *Cajas* and some commercial banks fell into severe financial distress, setting the whole financial system at risk. At the beginning, during 2008, 2009 and early 2010 the regulatory authorities invoked the traditional ways of overcoming problems in previous episodes (Crespí et al., 2004). That is, the regulator facilitated the use of mergers among banks, and it encouraged well-managed *Cajas* to merge with those in difficulties, after some financial help, in order to achieve larger and healthier institutions. But the depth of the crisis and the limitations of this early approach became soon evident. By 2010, further legislative reform was introduced (Real Decreto- ley 11) paving the way to a dramatic change in the Spanish financial sector. The reasons behind this change are complex and go beyond the scope of this paper. Nevertheless, we

would like to point out that several international institutions, like the IMF, and the Spanish regulator were often uneasy, when not critical, concerning the organisational form of *Cajas*, and its governance peculiarities respect the commercial banks. The reform forced *Cajas* to transfer their financial activity to a newly created bank (this time a corporation, not a foundation) transforming their legal form (Sagarra et al., 2015). This change had important consequences and allowed commercial banks to takeover *Cajas*, something that was not possible before.

While Spanish commercial banks were shareholder-oriented and strongly controlled corporations, *Cajas* were private stakeholder-oriented organisations, with no formal owners and with specific governance arrangements. In fact, *Cajas* could be considered as non-for-profit commercial institutions in the sense of Hansmann (1996). They had a general assembly and a board which were made up of representatives from four different stakeholder groups (founding entities, depositors, employees, and local and/or regional public authorities). Although this peculiar organisational form facilitated the stakeholders' involvement, it also had important implications in terms of raising capital and control. More specifically, *Cajas*' legal form aggravated their difficulties to raise capital (they could not issue capital) to sustain their increasing credit activity and, furthermore, it could lead them to a higher risk of politicisation and mismanagement (Crespí et al., 2004). Next, we explore these specific features and problems.

## 3. Corporate governance and human capital in the Spanish banks

## 3.1 Commercial banks and Cajas

Commercial banks in Spain are profit-maximising corporations, with a shareholderoriented approach and a somewhat concentrated ownership structure. For example, Azofra and Santamaría (2011) found evidence that 96% of Spanish commercial banks had an ultimate controlling owner. Under a simplified view, we could say that shareholders are their sole owners, profits are distributed only among shareholders, and the agency relationship between shareholders and managers is well defined.

The governance of the Spanish savings banks, or Cajas was quite different. Ayadi et al. (2009) offers a detailed comparison of savings banks from different European countries, including the Spanish ones. Cajas were private credit institutions with a foundational nature, a lack of formal owners (i.e., no shareholders), and where their principal governing bodies were the General Assembly, which is the analogue of the General Meeting in commercial banks, and the Board of Directors, which can delegate many of its functions to an executive commission. Both the chairman, who officially represents the bank, and the CEO, who is the responsible to execute the board resolutions, are elected by the board. In some Cajas the chairman has executive functions all together with the CEO. In addition, both the General Assembly and the Board are made up of representatives of the various stakeholders (i.e., depositors, employees, local and/or regional public authorities, and founding entities). These stakeholders have different, although sometimes interrelated, goals. More specifically, these goals have been described as follows: a) the universal access to financial services, b) promote competition and prevent monopoly abuse, c) contribute to social welfare and wealth distribution, d) make a contribution to regional development, and e) contribute to profit maximisation

(García-Cestona & Surroca, 2008). Not only that, *Cajas* should invest part of their profits in social and cultural programmes (around 25%, on average, of their net profits) and retained the rest as reserves. Therefore, rather than only pursuing profit maximisation, as it is the clear objective for commercial banks, *Cajas*' goal was to maximise their stakeholders' value or utility, a mission somewhat broader and less concrete than the one pursued by commercial banks. *Cajas*' controlling bodies did not pressure managers to seek profits because they would benefit little from it (Ferri et al., 2015). For instance, the depositors' group was usually formed by small and uninformed investors without sufficient incentives to monitor *Cajas*' activities (Freixas & Rochet, 1997) and the local authorities would be more interested in *Cajas*' support to some local investments, independently of their profitability.

In more general terms, the combination of a wide range of stakeholders' missions, with conflicts of interest among themselves, and *Cajas*' immunisation to market corporate control (except for takeovers from other *Cajas*), gave *Cajas*' managers a wide freedom of action, inducing them to undertake more risk (García-Marco & Robles-Fernández, 2008). Coalitions of different stakeholders were formed, and they were more interested in achieving their own goals than seeking an efficient allocation of resources. This justified suboptimal investment policies and the obligation to participate in alleged covert strategic projects for the region or the city of origin. Regarding internal supervision, this was assigned to the so-called control commission, but this control ended up being worthless from the moment that this commission replicated the same composition of other governance bodies, and just ratified the decisions taken by the board of directors (Azofra-Palenzuela & Santamaría-Mariscal, 2004).

In contrast, commercial banks are exposed to well-known agency conflicts, but there are additional features that make banks' governance different from the governance of unregulated, non-financial firms (Adams & Mehran, 2012). First, banks' business is opaque and complex, and can shift rather quickly. Second, the higher number of banks' stakeholders (i.e., investors, depositors, regulators, among others) complicates banks' governance. It is precisely the prominence of these parties with a stake, or groups of interest, either in the shareholder-oriented banks (e.g., Spanish commercial banks) in general or in the stakeholder-oriented banks (e.g., Cajas) in particular, what motivates the analysis of these firms under alternative theories. While agency theory motivates an analysis where the different governance mechanisms contribute to the general objective of maximising shareholder value (i.e., it is a shareholder-oriented theory), the stakeholder theory (Freeman, 1984; Allen et al., 2015) questions value maximisation as the firm's objective function, proposing stakeholders' total welfare maximisation as an alternative. The presence of externalities (managerial decisions have an impact on certain stakeholders' welfare) implies that the pursuit of certain interests in the firm does not necessarily result in collective efficiency.

Describing the already complex reality of Spanish banks' governance in terms of their risk-taking behaviour, Crespí et al., 2004; García-Marco & Robles-Fernández, 2008) point out that the owner-manager agency conflict coexists with another moral hazard problem, and this causes a twofold effect on the 'organizational form – risk-taking behaviour' relationship that is not easily predictable. This additional moral hazard hypothesis states that banks' limited liability generates, similarly to non-financial firms, an incentive for shareholders to expropriate part of the wealth from depositors while

increasing the risk held by the bank. Furthermore, the existence of a deposit insurance raises the banks' incentives to take risks beyond the optimal level, either in their assets or in their liability portfolios while, at the same time, it diminishes the regulators' incentives to control and reduce the banks' risk excess. Furthermore, a bank's incentives to take risk diminish with a less-concentrated ownership structure (e.g., in the case of *Cajas* compared to commercial banks, or for commercial banks with lower concentration levels). This moral hazard approach developed by Merton (1977) was widely applied to explain the American Savings and Loan (S&L) crisis in the eighties (Kane, 1989; White, 1991; Akerlof & Romer, 1993; among many others).

Nevertheless, we would like to point out that the presence of conflicts among different stakeholders have been addressed in certain savings banks, as shown in the Norwegian banking industry. There, side by side with the Norwegian commercial banks (regular stock companies that are controlled by their shareholders), we can find savings banks (banks in which the shareholders, if any, hold only one fourth of the control rights, while the remaining three quarters of control rights are split equally among the employees, the depositors, and community citizens). Following an agency problem perspective, Bøhren et al. (2012) point out that, although conflicts of interest between the stakeholders might reduce the bank's ability to create value, there are some instruments (i.e., dividends) that are used to mitigate inherent agency conflicts in the bank's stakeholder structure (i.e., when the potential agency conflict in the firm increases, the actual conflict becomes smaller through a higher dividend pay-out).

In addition, when one compares the stakeholder banks' performance with the shareholder banks' one, the existing empirical studies point out some results which differ from the theoretically expected ones. For example, when comparing American mutual institutions with stock banks, Esty (1997) concludes that stock banks exhibit greater incentives to take risk, and that the conversion of an organisational form from mutual to stock ownership (ironically an adaptation promoted by the Congress and the regulators to save the American S&L industry) was associated with increased risk taking. Thus, Esty concludes that the regulatory changes were not based on a consideration of agency conflicts. There is also empirical evidence from countries other than US that support the hypothesis of a more pronounced principal-agent problem in the case of stakeholder banks. For instance, Gorton and Schmid (1999) conclude that Austrian cooperative banks, seen as organisational forms with an exogenous ownership structure, reduce their performance as the number of cooperative members increases, corresponding to a greater separation of ownership and control. They find that agency costs (measured by efficiency wages) increased in the degree of separation or dispersion of the ownership structure. However, Altunbas et al. (2001) evaluated the German case through the analysis of private commercial banks, government-owned savings banks and mutual cooperative banks for the period 1989-1996 and found a different result. Following an efficiency approach, they observed that savings banks and cooperative banks perform better than commercial banks under this ownership dimension.

We also have empirical examples of cross-country studies. Iannotta et al. (2007) analysed a sample of 181 large banks from 15 European countries over the period 1999–2004 and found that, although private banks are better profit performers, this result was based on higher net returns on their earning assets rather than a superior cost efficiency, in which public and mutual banks were better performers. They also

concluded that public banks were worse performers in terms of loan quality and higher insolvency risk, but mutual banks were better than private banks in this aspect. Girardone et al. (2009) compared the cost efficiencies among commercial banks, savings banks and credit cooperative banks from different European countries and, contrary to what agency theory predicts, they found that mutual banks were more cost efficient than commercial banks. Also, in a comparative study including several European countries, Ferri et al. (2015) concluded that, in terms of loan quality, shareholder-oriented banks were worse performers than stakeholder-oriented banks. Nevertheless, we want to point out that it is crucial to understand in detail the different and specific underlying organisational forms when doing comparative analyses. Certainly, this is a great weakness of cross-country comparisons at the time of connecting governance and riskperformance issues. Different institutional frameworks can lead to very different outcomes for the same approach.

Turning to the Spanish case, García-Marco and Robles-Fernández (2008) found that commercial banks were more risk-inclined than *Cajas*, supporting the moral hazard hypothesis described earlier, and contrary to a greater owner-manager agency conflict predicted for *Cajas* with an organisational form that favoured this problem and that, during the period (1993–2000), were in great territorial expansion outside their traditional locations, compared to commercial banks. However, when focusing on commercial banks, and contrary to the moral hazard hypothesis, these authors found that shareholder concentration had a negative impact on the level of risk-taking, arguing that a higher shareholder concentration implied a stricter control over managers under an agency problem approach, even when deposit insurance was in place. Finally, the same authors concluded that size matters (in the sense of a smaller propensity to risk-taking), probably due to the higher capacity of bigger banks to diversify their risks (geographical and business diversification) and to gather information for their investments (Saunders et al., 1990).

Different authors have also addressed different banks' governance issues after by the last global financial crisis. For example, Mehran et al. (2011) made a good general review of this topic. Regarding the empirical studies, one can see Beltratti and Stulz (2010), Fahlenbrach and Stulz (2011) or Aebi et al. (2012). These three papers concluded, by different ways, that there was a strong relationship between the banks' governance structure before the crisis and their performance during the crisis. Erkens et al. (2012) developed a cross-country comparative study to analyse the corporate governance effects on the performance of financial firms during the 2007-2008 crisis period. However, these studies must be taken with care since, additionally to the weaknesses pointed out before, they cover several countries and large geographic areas while considering only the largest and/or the listed banks, introducing a bias that may offer an incomplete picture of the sector. For example, in the case of Erkens et al. (2012) only 9 Spanish listed banks were included. That subsample (formed by 8 listed banks and 1 listed insurance company) can hardly represents the whole sector. Furthermore, although the previous literature has extensively exposed and argued about the differences between Spanish commercial banks and Cajas under several theoretical perspectives, they have only used the 'good' years. That is, the years until 2007, and it is precisely the 2007-2008 financial crisis and the subsequent distress of most Cajas what generates an additional motivation for this research. Few papers have addressed the relation between governance issues and performance for the specific case of stakeholder-oriented banks in the last crisis (see, Allen et al. (2015) and Leung et al. (2019)), and one of the main objectives and contributions of this research is to provide new empirical evidence and insights to the debate.

More specifically, there is the possibility that a hidden *Cajas* agency problem (aggravated by a potential lack of human capital) during the pre-crisis years in Spain became exposed during the crisis years. For instance, Illueca et al. (2014) noted the negative effect of the 1988 Spanish banking deregulation (i.e., the removal of branching barriers on *Cajas*) in connection with the specific governance nature (and the politicisation) of *Cajas* over their *ex ante* risk-taking and their *ex post* loan defaults. This could explain the existence of a differentiated behaviour between commercial banks and *Cajas* (e.g., with less knowledge about the new territories in which they had expanded rapidly thus taking high residual risks; creating or investing themselves in real-estate companies; or funding not-so-viable politically backed projects due to politicians' influence in the governance bodies). Furthermore, this differentiated *Cajas*' behaviour originated a deferred distress problem (somehow hidden during the boom period and becoming only visible during the crisis and the subsequent real-estate problem in Spain). Confirming these premises, García-Meca and Sánchez-Ballesta (2014) found that commercial banks performed better than *Cajas*, on average, during the crisis period.

Considering the previous literature and *Cajas*<sup>2</sup> wide mission, one would expect a better performance for the case of commercial banks. These banks enjoyed a more specific and clear goal than *Cajas*, and this clearness becomes a useful governance feature, especially during the crisis. Furthermore, one needs to control for risk at the time of comparing the performance of different organisations. This is particularly relevant in a context like the financial sector where the returns and the costs of decisions are allocated differently among the different stakeholders and over time. With all this, we write the following hypotheses:

**H1(a)**. Commercial banks perform better (higher profitability and less risk-taking) than *Cajas* during the pre-crisis period.

**H1(b)**. Commercial banks perform better (higher profitability and less risk-taking) than *Cajas* during the crisis period.

#### 3.2 Chairman's human capital in Spanish banks

While great part of the financial literature has focused on the effects of board composition (i.e., size, independence, or directors' stock ownership) on banks' performance, Hau and Thum (2009) have analysed the qualitative features of board members. These authors claimed that features such as board members' education and experience should receive more attention in the performance assessment. Other studies have shown the impact of having experienced directors on firms' performance (Dass et al., 2013; Drobetz et al., 2015; Johnson et al., 2013; Von Meyerinck et al., 2016). Following Johnson et al. (2013), we could separate the qualitative characteristics (not only from board members, but also from top managers) in different groups: demographics (e.g., age and gender), human capital (e.g., experience, education and tenure), social capital (e.g., personal relationships, ties to political parties, status or prestige ...) and others (e.g., business features). For simplification, and as it is common in most studies, we will denote the managers' qualitative characteristics as 'human capital' in this study.

Agency theory seems to play a specific (and sometimes limited) role in explaining the effect of governance mechanisms, since it focuses more on the incentives than on the 'capabilities' of such mechanisms. The effects of human capital on firms' performance have been addressed under different views and theories. Without being exhaustive, we can mention the papers of Crook et al. (2011) and Johnson et al. (2013) for a comprehensive review of the literature. Using the resource-based theory, Hitt et al. (2001) claimed in their empirical study the relevance of the human capital (i.e., a critical resource) to explain the differences on firms' performance. The variance in firms' resources and capabilities is what explains the differences in performance across firms. Intangible resources are more likely to generate a competitive advantage (which brings along a better performance) than tangible resources. Firm knowledge is an example of intangible firm-specific resource, and this knowledge mainly derives from the human capital of an organisation.

Güner et al. (2008) allowed us to link the previous literature, more centred in nonfinancial firms, with the banking industry, since they analysed a sample of publicly traded companies (excluding the financial firms) employing different variables to measure the directors' financial expertise (e.g., having served as a manager in a commercial bank, an investment bank or another financial institution, a former finance manager, or a professor in Finance, among others) as drivers of the corporate decisions. Fields et al. (2012) investigated if the quality of the board (and they include variables regarding both formal and more qualitative measures) affects the cost of debt capital for S&P 1,500 firms, finding an inverse relation between both dimensions.

As mentioned above, few studies deal with the effects of human capital over banks' performance. When searching for literature close to our debate (commercial banks and Cajas), we only find empirical evidence in Hau and Thum (2009) for the German case, Aebi et al. (2012) for the US banks, and in Cuñat and Garicano (2010) and García-Meca and Sánchez-Ballesta (2014) for the Spanish case. Regarding the German banks, Hau and Thum (2009) analysed the biographical data (i.e., educational background; finance experience; and management experience) of 592 board members from the 29 largest banks, comparing the performance of private and state-owned German banks in the 2007-2008 financial crisis. They related these banks' performance with the board's qualitative measures and found that the board members' managerial and financial experience in privately owned banks was systematically higher than the same experience in state-owned banks. Furthermore, a poorer quality in board competence was related to higher losses in the financial crisis. These German authors also pointed out that 'most of the politically connected board members made their career in politics and in the administration but have little experience in banking and financial markets'. This would suggest that, under the resource-based theory, a political background exerts a bad effect on performance.

Regarding the Spanish case, Cuñat and Garicano (2010) studied about 30 *Cajas* and found a significant effect of the chairman's human capital (education, previous banking experience and political affiliation in their study) on the loan book composition (the size of real estate and individual loans portfolios) and on performance (in their case, the amount of non-performing loans in the crisis; the decrease in ratings) using one-year data observation for assessing the financial crisis. While education and previous banking experience had a positive effect on the dependent variables, those *Cajas* whose chairman was a political appointee had a significantly worse loan performance during the crisis. Closer to our study, García-Meca and Sánchez-Ballesta (2014) focused more in politization and risk measures, collecting data from 22 banks and 32 *Cajas*. These authors measured the chairman's human capital through a dichotomic variable (having previous banking experience or not), and similarly to Cuñat and Garicano (2010) they found no evidence that the composition of *Cajas*' boards, or their politicisation, had played a role in their crisis.

In our approach, we collect more detailed data than previous studies concerning some features of the chairman's human capital. In particular, we have their formal education, the years of banking and non-banking experience and their political affiliation. Although human capital may certainly have several other dimensions, we think that the selected ones could be good proxies for whether managers' human capital matters for performance. Summarising, we believe that human capital (i.e., the personal qualities of banks' managers) becomes an important driver in the understanding of banks' performance and must be explored further despite the difficulties to collect that data. In a book relating his own long-time experience as chairman of one of the most important *Cajas*, Serra-Ramoneda (2011) argued that the *Cajas* could have remained within their traditional regions and ignored the (risky) temptation to expand. In fact, some *Cajas* followed that path, but most *Cajas*' top managers embraced growth beyond their traditional territories as an opportunity to increase their power, status in society and income. These *Cajas* eventually followed an aggressive expansion in other regions, especially through real estate loans.

Considering the issues arisen from the chairman's human capital (experience and education in our case) and after reviewing the previous literature, we expect a positive impact of human capital on banks' performance. In contrast, the relationship between the chairman's political affiliation and banks' performance seem to generate more problems, especially in a crisis period. Although previous literature is not conclusive, regional and local governments may tailor bank's policies to suit their own interests, so causing a rise in risk levels. Even in a crisis context, chairmen with political affiliations who make their career in politics, may respond in a slower and weaker way at the time of managing risks and correcting the economic results of their banks. We then test the following hypotheses:

**H2(a)**. There is a positive relationship between the chairman's human capital (e.g., experience and education) and the performance of both commercial banks and *Cajas*. This relationship becomes more significant with the crisis.

**H2(b)**. There is a negative relationship between the chairman's political affiliation and the performance of both commercial banks and *Cajas*. This relationship becomes more significant with the crisis.

## 3.3 The Cajas' ownership structure and politicisation

In spite of their later disappearance, many *Cajas* performed well during the crisis. What could help us to understand the presence of heterogeneous results inside the Cajas? Which role did their ownership structure, the politicisation and the top directors' human capital play in those differences? Next, we approach these questions in this subsection. Cajas were diverse. The Cajas' regulatory framework established in 1977 was substantially modified by the 1985 'Ley de Órganos Rectores de las Cajas de Ahorros (Cajas Governing Bodies Act)' Act. The 1985 Act allowed executive chairmen (with executive salaries) and regulated the presence of the various stakeholders in the Cajas' governance bodies, definitively boosting the presence of public authorities: depositors between 25 and 50% of the voting power, employees between 5 and 15%, local public authorities up to 50%, and founding entities with the remaining share. Additional regional laws (i.e., laws approved independently by the Autonomous Community where each respective *Caja* was established), supported by firm sentences from the highest judicial body (i.e., the 'Tribunal Constitucional', the Spanish Constitutional Court), allowed not only an increased presence of the local public authorities in the bodies, but also the presence of the regional public authorities on them. In several circumstances, the Cajas were ruled de facto by their correspondent regional governments since the politicisation limitation of 50% was easily surpassed. It is also true that in some examples (e.g., seven of the ten Catalan Cajas) this politicisation was low (below 20% level), due to the traditional control exerted by the founding entities which were, typically, civic organisations.

To conform to the European law for private banks, the 44/2002 'Lev de Medidas de Reforma del Sistema Financiero (Measures for the reform of the financial system Act)', set a 50% limit to the presence of public authorities on the governance bodies. This reform also allowed the issue of 'cuotas participativas' (non-voting equity units). Both measures represented an effort to put a limit to the of Cajas's politicisation. However, neither measure had a significant impact. On the one hand, there is evidence that the politicisation limitation of 50% was easily circumvented by selecting politicised people as representatives in other stakeholder groups (using politicians in disguise, Andrés et al 2021). On the other hand, although there was some formal interest in issuing 'cuotas participativas' (CAM and Caixa Galicia were the unique issuers during the decade 2000-2009), there was no real interest, neither by the Cajas, nor by potential investors, in using the cuotas as a tool to control and monitor the banks (Spanish cuotas had no voting rights in contrast with the Norwegian ones). Later, the 'Ley Financiera (Financial Act)'26/2003 introduced some additional information requirements for Cajas in order to increase transparency. And finally, the 11/2010 Royal Decree-Law reduced from 50% to 40% the ceiling on the public authorities' voting rights in *Cajas* and increased the transparency and the professionalisation of both the political representatives and the top executives, with more-demanding requirements in terms of banking experience and education. Nevertheless, these last measures arrived too late for most Cajas.

How did this level of politicisation affect *Cajas*' performance? As we have mentioned above, there is no consensus among the researchers. While Melle and Maroto (1999) and Azofra-Palenzuela and Santamaría-Mariscal (2004) found a negative relationship between the presence of public authorities in the *Cajas* bodies and their economic efficiency, other studies contradicted those results. García-Marco and Robles-

Fernández (2008) did not find that the bank's control by public administrations caused any effect on risk-taking behaviour. Cuñat and Garicano (2010) showed some evidence that neither the formal nor the real politicisation of the *Cajas*' governance bodies were correlated with the loan book's composition and performance at the peak of the financial crisis. Furthermore, García-Meca and Sánchez-Ballesta (2014) did not find any relationship between the share of politicians in the general assembly and *Cajas*' economic performance.

However, analysing the effects of the 1988 Spanish banking deregulation (i.e., the removal of branching barriers for Cajas), Illueca et al. (2014) did find a negative effect of such deregulation, in connection with the specific governance nature (and the politicisation) of Cajas, on their ex ante risk-taking and their ex post loan defaults. These authors concluded that deregulation of an industry in which institutions are weak in corporate governance and exposed to political influence, did not necessarily lead to the expected positive outcomes. Italian banks offered interesting results in the same line. Sapienza (2004) pointed out that the level of political influence on Italian state-owned banks had affected their lending behaviour (i.e., in terms of charging lower interest rates). Menozzi et al. (2012) offered similar results for Italian local public utilities, in which the degree of politicisation negatively affected their performance. Closer to our approach, Hau and Thum (2009) studied the German state-owned banks' performance during the last financial crisis, trying to establish a relationship between these banks' governance quality (through the board members' biographical background) and their constant underperformance regarding the private banks. In fact, these authors found a strong relation between both dimensions.

In summary, once we consider the issues arisen from the *Cajas*' increased politicisation, one could expect a negative relationship between the degree of politicisation of *Cajas*' governance bodies and *Cajas*' performance in terms of risk-taking, although the evidence is not conclusive (García-Cestona & Surroca, 2008; Cuñat & Garicano, 2010; García-Meca & Sánchez-Ballesta, 2014). In entities controlled by politicians, the economic arguments were not the main concern when deciding to fund certain investment projects. And this was even more true, probably, during the financial crisis when other funding alternatives could be out of reach. In contrast, more participation from the employees, or the depositors, in the governing bodies probably induced *Cajas* and their top managers to select better economic projects, also during a crisis period when the entity's survival could be at stake.

H3. Less-politicised *Cajas* perform better than more-politicised ones, especially during the crisis.

## 4. Data and methodology

#### 4.1 Data sources

We have collected data from different sources. First, we have used the Bureau van Dijk's Bankscope database to obtain the financial information about both *Cajas* and commercial banks. This database is widely used in international studies (see for instance, Ferri

et al., 2015; Iannotta et al., 2007; Pathan & Faff, 2013), and it contains both the balance sheets and profits and losses account information for banks. Regarding the information on *Cajas*' governance, we have used the Corporate Governance Reports published by the banks in The Spanish National Securities Market Commission (CNMV, or '*Comisión Nacional del Mercado de Valores*'). The process of obtaining information regarding the chairman's human capital (in our case, experience, education and political affiliation) for *Cajas* and commercial banks has been significantly harder. We have used different sources: the Boardex database, the companies' web pages, the published *curriculum vitaes* of the chairmen, and additional information from newspapers and news clippings.

The final data set covers the period 2004–2009, and it includes 42 *Cajas* and 248 bankyear observations (while previous studies compared only 30 *Cajas* on average), and 16 commercial banks (92 bank-year observations). We have managed to collect information from all *Cajas*, except for the three smallest ones (Caixa Ontinyent, Caja Jaén and Caixa Pollença). Regarding commercial banks, we have included those with a minimum size of, at least, 3 billion Euros in total assets in their last available year. The data on governance variables was only available for the period 2004–2009. It covers 4 years before the onset of the crisis (i.e., 2004–2007), and 2 years after the crisis hit. We did not collect data from 2010 onwards because of the deep restructuring of the financial sector, resulting in the integration of most banks in bigger groups, especially in the case of *Cajas* (see Appendix 1). Furthermore, *Cajas*' governance was substantially affected by those changes introduced by the 11/2010 Royal Decree-Law. Finally, we collected financial data for the period 2002–2009 because some dependent variables (i.e., ROA's volatility; Z-score) were calculated using 3-year windows.

## 4.2. Variables and models

#### 4.2.1. Dependent variables

We have selected five different dependent variables to assess the banks' performance in a broad sense, ranging from profitability measures (return on assets, ROA) to loan quality measures (impaired loans over gross loans), and more complex risk measures (ROA's volatility and two Z-score values). *Cajas* did not aim to maximise their profits only and so, focusing only on profitability measures could mislead their comparison with commercial banks. Furthermore, we want to understand better the trade-off between risk and banks' returns, especially around the crisis. Riskier portfolios may be very profitable in certain periods, but they may also imply a higher probability of bad-quality loans or even bankruptcy in later periods.

We measure profitability through the ROA, defined as the ratio of bank after-tax profits to its total average assets. ROA is a measure of the level of returns generated by those assets, and it is the most widely used ratio to compare the performance among financial firms. We use ROA instead of ROE (i.e., return on equity) because the latter is influenced by the bank's capital-asset ratio and, due to the different ownership nature of commercial banks and *Cajas*, this ratio could differ substantially among the different banks as it has been already pointed out (Crespí et al., 2004; Ferri et al., 2015).

The somewhat abstract concept of bank risk is measured through three different variables. First, we use ROA volatility, calculated as the standard deviation of the ROA over a 3-year window (Barry et al., 2011; García-Meca & Sánchez-Ballesta, 2014; Laeven

& Levine, 2009). Here, higher values imply higher risk. As a second measure, we use the Z-score, using the full sample period as implemented by Hesse and Čihák (2007) and Lepetit and Strobel (2013), through the form of [[(Equity/Total Assets) + ROA]/ROA Standard Deviation]<sup>-2</sup>. The ROA standard deviation estimates are calculated over the full sample, and combine these with current period values of Equity/Total Assets and ROA in t. For this measure, higher values also imply higher risk (i.e., higher probability of bank failure). As a third alternative, we refine the previous measure and we calculate the Z-score using a 3-year window. This measure reports the natural logarithm of [[(Equity/ Total Assets) + ROA]/ROA Standard Deviation], where the ROA standard deviation estimates are calculated using a 3-year window, differentiating this measure from the previous Z-score (the one using the full sample). This measure has been used before (Hannan & Hanweck, 1988; Laeven & Levine, 2009), also for the Spanish case (García-Meca & Sánchez-Ballesta, 2014). To facilitate the interpretation, the original measure has been multiplied by -1, implying that higher values also mean higher risk (i.e., higher probability of bank failure). Finally, we measure loan quality through the Impaired Loans/Gross Loans ratio, which shows the loan portfolio quality in terms of the worst and more doubtful loans. This ratio is also a measure of ex post credit risk (Salas & Saurina, 2002).

## 4.2.2. Explanatory variables and models

Our work analyses three main groups of explanatory variables and models, according to the questions and hypotheses previously discussed. First, it is crucial to select the bank-specific control variables that should be present in the models since, as noted by Ferri et al. (2015), a bad choice of variables could lead us to a misinterpretation of the results due to the heterogeneous nature of the different groups of observations. We have chosen the following control variables: BANK, which takes the value of 1 for commercial banks, and 0 otherwise (i.e., for *Cajas*); CRISIS, which takes the value of 1 for the years 2008 and 2009, and 0 otherwise (years 2004 to 2007 in our sample); SIZE, which is the natural logarithm of the Total Assets and GROSS LOANS/TOTAL ASSETS, to control for the type of bank's assets. Our control variables are in line with the works of Iannotta et al. (2007), Laeven and Levine (2009), Ferri et al. (2015), and Bøhren and Josefsen (2013), among many other strongly related references from the literature. Although size matters, heterogeneity among the banks does not only respond to size differences and we must also consider differences in their business model (i.e., assets) and differences in the funding structure.

Our first hypotheses want to assess the differences in performance between commercial banks and *Cajas*. This is tested through the following model:

$$\begin{aligned} Performance_{i,t} &= b_0 + b_1 Bank_{i,t} + b_2 Crisis_{i,t} + b_3 \cdot (Bank \ x \ Crisis)_{i,t} + b_4 Ln \ Size_{i,t} \\ &+ b_5 Gross \ Loans/Total \ Assets_{i,t} + \varepsilon_{i,t} \end{aligned} \tag{1}$$

In addition, the hypotheses regarding the chairman's human capital in Spanish banks are tested through the following model:

 $\begin{aligned} & Performance_{i,t} = b_0 + b_1 \text{ Chairman's previous banking experience}_{i,t} + b_2 \text{ Chairman's entity experienc} \\ & e_{i,t} + b_3 \text{ Chairman}(\text{education2})_{i,t} + b_4 \text{ Chairman}(\text{education3})_{i,t} + b_5 \text{ Chairman} \\ & (\text{education4})_{i,t} + b_6 \text{ Chairman with political affiliations}_{i,t} + b_7 \text{ Bank}_{i,t} + b_8 \text{ Crisis}_{i,t} + b_9 \\ & (\text{Chairman education } 4 \times \text{Crisis})_{i,t} + b_{10} (\text{Chairman with political affiliations} \times \text{Crisis})_{i,t} + b_{11} \\ & (\text{Bank} \times \text{Crisis})_{i,t} + b_{12} \text{ Ln Size}_{i,t} + b_{13} \text{GrossLoan/TotalAssets}_{i,t} + \varepsilon_{i,t} \end{aligned}$ 

(2)

In this model the Chairman's previous BANKING EXPERIENCE variable represents the number of years that a chairman has spent in other banks before their current firm. The Chairman's ENTITY EXPERIENCE variable shows the number of years that a chairman has been working for their current firm. We want to underline the limitations of using a dichotomic variable to capture the effects of previous banking experience as it is done in previous studies. Such approach does not distinguish between a chairman who has worked one single year in other institutions and another chairman who has worked twenty years in four institutions. This is an industry where specific knowledge proves to be very important, and where the accumulation and depth of this experience becomes more relevant than just having a short exposure to the industry. The chairman's EDUCATION variables show the degree a chairman holds: EDUCATION 2 has a value of 1 if the chairman has a university degree unrelated to business or economics (e.g., Medicine, Law, etc.), and 0 otherwise; EDUCATION 3 has a value of 1 if the chairman has a degree in Business and/or Economics, and 0 otherwise; EDUCATION 4 has a value of 1 if the chairman holds a PhD in Business Economics or an MBA in a prestigious institution, and 0 otherwise. The omitted variable is EDUCATION 1, which adopts a value of 1 if the chairman has no university degree and 0 otherwise. Similarly, the chairman's POLITICAL AFFILIATION variable shows a value of 1 if the chairman has been an elected public official and 0 otherwise.

Finally, at the time of measuring the hypothesis regarding the politicisation of *Cajas*, we use the following model to calibrate the political effects:

 $\begin{aligned} & Performance_{i,t} = b_0 + b_1 \text{Executive chairman}_{i,t} + b_2 \,\% \text{Each Stakeholder's seat}_{i,t} + b_3 \text{Crisis}_{i,t} + \\ & b_4 (\text{Executive chairman} \times \text{Crisis})_{i,t} + b_5 (\% \text{ Each Stakeholder's seat} \times \text{Crisis})_{i,t} + b_6 \text{Ln Size}_{i,t} + \\ & b_7 \text{Gross Loans}/\text{Total Assets}_{i,t} + \epsilon_{i,t} \end{aligned}$ (3)

The common concern on CEO duality is captured by the EXECUTIVE chairman variable that shows the position of the chairman: It has a value of 1 if the chairman has an executive position, and 0 otherwise. This model introduces the *Cajas*' specific ownership structure. The following group of variables contains the PERCENTAGE OF SEATS held by different stakeholders (i.e., employees, depositors, and local and regional public authorities, respectively) in the board, being the omitted variable the founding entities' percentage of seats. It is important to note here that, compared to the previous studies regarding *Cajas*, we have adjusted the distribution of the seats among the different stakeholder groups, in order to represent the real political representation in the governing bodies, since the theoretically non-politicised stakeholder groups may also have politicised seats.

Since we need to control the individual features of each bank (there is a different constant value for every cross-sectional observation), all models are estimated using random effects, instead of pooled ordinary least squares (OLS) regression. The Breusch and Pagan test confirms that it is better to use random effects instead of pooled OLS, since the null hypothesis of the test is rejected (the test shows a Prob > Chi2 below 0.01). We cannot estimate the models using fixed effects since we need time-constant dummies to control for bank type (in the first and second model), or other constant-type variables (% of seats in the board) in the third model. In addition, we have also estimated all the models using pooled OLS regression and dynamic OLS regression (i.e., with the lagged dependent variable as exploratory variable, since random effects cannot handle lagged dependent variables), with time dummies and standard errors adjusted for clustering at the bank level. These results remain stable when we run these alternative specifications, and they are available upon request.

Endogeneity becomes an important issue in governance studies (Hermalin & Weisbach, 2003; Adams et al., 2010; and Wintoki et al., 2012, make a good review of this topic). It is important to note that we are trying to establish an association between exploratory variables and dependent variables, and that we do not pretend to find a causality connection or reverse causality issues. Although we are using the population data, the limitation in the number of observations prevented us to use the usual techniques (e.g., GMM among others) to deal with this problem.

## 5. Empirical findings

Table 1 shows a relevant descriptive analysis of the chairman's human capital data collected from both *Cajas* and commercial banks for the period, around three dimensions: experience (having previous banking experience, and the years of global, banking and firm experience), education (level of studies) and political affiliation (being a political appointee).

We can see a quite different human capital approach when we compare the two bank types. Regarding the experience dimension, while most of the *Cajas*' chairmen have not previous banking experience (92.5%), this is not the case of chairmen of commercial banks (where 40% have previous banking experience). And this percentage is even larger for Cajas with non-executive chairmen. In addition, the average number of years of experience for commercial banks' chairmen is higher than the years of *Cajas*' chairmen, especially when we focus on the banking and entity experience. The distribution of the chairman's education for *Cajas* is quite surprising, clearly skewed towards levels of education unrelated to finance (i.e., university degrees different from Economics or Business and even a 15% with no university degrees). For commercial banks, the chairman's educational background is more balanced and there are no chairmen without a university degree.

Regarding the chairman's political affiliation, it is quite interesting to observe that, while almost two thirds of the *Cajas*' non-executive chairmen have no political affiliation, this situation becomes the reverse for executive chairmen. Unlike this, 0% of the commercial banks' executive chairmen have political affiliation, showing a clear separation between political affiliation and executive activities. This data could be showing a possible regional and/or municipal governments' interference in those *Cajas*. Commercial banks' chairmen present very few cases of political affiliation, and they are all non-executive chairmen.

						Caja	S						U	ommerci	ial b	anks		
							No	c								Von		
	Value	Description	Chaii	man	Execu	utive man	Execu Chairi	ıtive man	U	EO	Cha	rman	Exec Chai	utive rman	ĞΔ	cutive iirman	0	EO
Fynerience	c	With no previous hanking experience	67 (	, %2 CI	21 8	7 50% 2	11 0	5 30%	44	YO2 09	1	60.0%	ď	61 50%	4	57 10%	~	%C 6C
	5		2	0/1-2					=	0/1-00	4	0,0,00	5	0/010	+	0/1.10	. !	0/7.77
	<del>.</del>	With previous banking experience	Ś	7.5%	3	2.5%	2	.7%	29	39.7%	œ	40.0%		38.5%	m	42.9%	17	70.8%
		TOTAL	67 1	20.0%	24 10	0.0% 2	H3 10	0.0%	73 1	00.0%	50	%0.00	13 1	%0.00	~	100.0%	24	100.0%
	Years	'Global' experience (Average)	32		28	(*)	5		30		34		33		37	,	30	
	Years	'Banking' experience (Average)	13	·	15	-	m		28		25		28		20		28	
	Years	'Entity' experience (Average)	12	·	13	-	2		22		19		21		16		15	
Education	-	No education	10	4.9%	2	3.3%	8 16	8.6%	4	5.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	2	Undergraduate university education (Medicine, Law	32 4	:7.8%	93	7.5% 2	3.5	3.5%	15	20.5%	9	30.0%	4	30.8%	7	28.6%	-	4.2%
		degree,)																
	m	Undergraduate university education (Economics	12	7.9%	5	0.8%	7 1	5.3%	4	56.2%	6	45.0%	4	30.8%	ъ	71.4%	17	70.8%
		degree,)																
	4	PhD in Business Economics, or MBA in prestige	13	9.4%	8	3.3%	5 1	1.6%	13	17.8%	2	25.0%	ς.	38.5%	0	0.0%	9	25.0%
		institutions																
		TOTAL	67 1	20.0%	24 10	0.0% 2	H3 10	0.0%	73 1	00.0%	20	%0.00	13 1	00.0%	~	100.0%	24	100.0%
Politicalaffiliation	0	Has not been a political appointee	35	2.2%	7 2	9.2% 2	80	5.1%	69	94.5%	17	85.0%	13 1	00.0%	4	57.1%	24	100.0%
	-	Has been a political appointee	32 4	. 2.8%	17 7	0.8% 1	ς Δ	4.9%	4	5.5%	m	15.0%	0	0.0%	m	42.9%	0	0.0%
		TOTAL	67 1	20.0%	24 10	0.0% 2	H3 10	0.0%	73 1	%0.00	20	%0.00	13 1	00.0%	~	100.0%	24	100.0%
Turnover	-	Worsening (Overall)	∞	7.6%	m m	0.0%	5 2(	5.3%	~	22.6%	4	66.7%	3	00.0%	-	33.3%	2	22.2%
	7	Remaining constant (Overall)	12	1.4%	m m	0.0%	9	7.4%	∞	25.8%	2	33.3%	0	0.0%	7	66.7%	9	66.7%
	m	Improving (Overall)	6	1.0%	4	0.0%	5 2(	5.3%	16	51.6%	0	0.0%	0	0.0%	0	0.0%	-	11.1%
	-	Worsening (Education)	5	7.2%	4	0.0%	1 5	.3%	9	19.4%	m	50.0%	3	00.0%	0	0.0%	5	22.2%
	7	Remaining constant (Education)	17 5	8.6%	4	0.0% 1	30	8.4%	12	38.7%	m	50.0%	0	0.0%	m	100.0%	m	33.3%
	m	Improving (Education)	-	4.1%	2	0.0%	5 2(	5.3%	13	41.9%	0	0.0%	0	0.0%	0	0.0%	4	44.4%
	-	TOTAL	29 1	. %0.00	10 10	0.0% 1	01 6	0.0%	31 1	,00.0%	9	%0.00	3 1	00.0%	m	100.0%	6	100.0%

Table 1. Chairman's human capital in Spanish banks.

We also report the basic descriptive statistics and the correlations table for all the variables considered in the three models (see Appendix 2). We want to underline the maximum values reaches in the percentage of seats held by depositors and politicised stakeholders (municipalities plus regional governments in our sample).

First, the mean and maximum values reflect the existence of a strong influence from these two types of stakeholders, when compared with other stakeholders (i.e., founders and employees). This influence is shown in the presence of Cajas where depositors hold a majority of votes, and Cajas where political appointees hold the majority. And second, and more surprisingly, there are Cajas in which the seats held by politicised stakeholders surpass the limit established by law since, as commented above, the 44/2002 'Ley de Medidas de Reforma del Sistema Financiero (Measures for the reform of the financial system Act)', set a 50% limit to public bodies' representation on the Cajas' governance bodies to conform to the European law for private banks. For their general assemblies, this was the case of Bancaja in 2005, Caixa Catalunya since 2006, Cajasol in 2007 and 2009, Cajastur in 2004, 2005, 2006 and 2008, Caja Granada since 2004, and Caixa Girona since 2007. Concerning board presence, both Caixa Galicia and Caja España passed the limit since 2004. The main reason behind these anomalies could be that some Cajas reported members coming from councils or regional governments as representatives of the founding entities, not as politically affiliated representatives, since their seats were labelled as founders' seats. We have carefully adjusted this fact in order to better assess the formal politicisation of each organisation.

The first hypothesis to be tested is if commercial banks, which are profit-maximising institutions, perform better than Cajas, which are stakeholder-oriented institutions. Table 2 provides the results. During our period of analysis, commercial banks have a better (although not significant) performance in terms of profitability than Cajas (Model 1), but this is accompanied with higher levels of risk in two of the measures (Models 3 and 4). And, when we specifically refer to the crisis period, banks perform better than Cajas in terms of risk, this time in all four measures (Models 2, 3, 4 and 5). This result would be contrary to the moral hazard hypothesis: being a shareholderoriented bank during the crisis would imply a stricter control over managers' risk management under an agency-theory approach, even when protected by deposit insurance. Summarising, while we find no significant differences in profitability between commercial banks and Cajas, commercial banks incur in more risk-taking pre-crisis and carry out a better risk-management then Cajas during the crisis. These results partially support our first hypotheses, and they are coherent with the subsequent restructuring of the whole sector, while confirming the different risk-taking behaviour models between commercial banks and Cajas. Nevertheless, this result is in terms of the average performance of banks. To go deeper in this comparison of bank's crisis performance, we should compare the performance of similar institutions using other methodologies and, if possible, synthetic control groups. That approach is beyond this paper's goal, where we want to insist on the Cajas' stakeholder composition, governance and some elements of the chairman's human capital. Finally, when we focus on the control variables, we confirm that the crisis period has strong significant effects for the whole sample in terms of less profits and more risk-taking. Also, a larger and more loanoriented bank becomes more profitable and less risky (Model 3) than the rest of banks, although this result is only significant for one of the risk-measures.

	Crisis (Caja:	s vs Banks)			
	Model 1	Model 2	Model 3	Model 4	Model 5
	Random effects	Random effects	Random effects	Random effects	Random effects
VARIABLES	ROA	ROA Volatility	Z-score (full sample)	Z-score (3-year window)	Imp.Loans / Gross Loans
Bank (1 = commercial bank;	0.2405	0.1271	0.0182***	0.3605**	-0.1801
0 = Caja)	(0.2070)	(0.0775)	(0.0052)	(0.1801)	(0.2784)
Crisis (1 = 2008 and 2009	-0.6021***	0.1852***	0.0140***	1.5027***	4.3777***
years)	(0.0864)	(0.0489)	(0.0038)	(0.1500)	(-1.0237)
Bank x Crisis	0.1549	-0.1234**	-0.0144***	-0.5158***	-1.0619***
	(0.1090)	(0.0624)	(0.0048)	(0.1880)	(0.2750)
Ln Size	0.0220	-0.0018	-0.0035**	0.0476	0.0721
	(0.0727)	(0.0268)	(0.0018)	(0.0603)	(0.0882)
Gross Loans/Total Assets	0.0011	-0.0000	-0.0006***	0.0014	0.0091
	(0.0051)	(0.0023)	(0.0002)	(0.0058)	(0.0085)
Constant	0.5198	0.1435	0.0819***	-5.4454***	4.0391***
	(0.8616)	(0.3352)	(0.0227)	(0.7377)	(1.1260)
Time dummies	Yes	Yes	Yes	Yes	Yes
Observations	341	341	341	340	315
R <sup>2</sup>	0.12	0.07	0.27	0.30	0.70
F-ratio (Chi <sup>2</sup> )	116.11***	45.03***	109.45***	189.82***	960.53***
Standard errors in parentheses *** p < 0.01, ** p < 0.05, * p < 0.1					

Table 2. Commercial banks and Cajas (pre-crisis and crisis periods).

Next, we explore how the chairman's human capital affects banks' performance and report the results in Table 3. We can extract some relevant conclusions. First, those banks with a chairman with more years in the current bank (ENTITY EXPERIENCE) have a better performance in terms of risk (Models 8, 9 and 10). In contrast, more years of previous banking experience are not so relevant, and only one of the risk measures (Model 8) shows a significant coefficient. Second, in terms of EDUCATION, a chairman with an Economics/Business degree makes no difference, but a chairman who holds a PhD in Economics or a prestigious MBA does have an impact, both in terms of a significantly better risk management in the crisis (Models 9 and 10), and more risktaking in the whole period (Models 7 and 9), although less significant. Both findings partially support the hypothesis H2(a). Although Models 7 and 9 show a negative effect on risk, its behaviour is like the commercial banks' one (i.e., during the crisis period, those chairmen with top educational degrees are better performers, as Models 9 and 10 show). These results are important because, as we mentioned above, Education and Experience are features of a chairman's human capital and these results do confirm the need to pay more attention to this variable and its effects on banks' performance.

Concerning the influence of the chairman's political affiliation on banks' performance, our analysis does not provide evidence concerning the influence of the chairman's political affiliation on banks' performance in general, nor in the crisis years, except in Model 8, where the coefficient becomes significant, at the 10% level, and increases the risk-taking. Thus, the hypothesis 2(b) does not find support from this analysis. Furthermore, the ROA results (Model 6) do not show any significant variable regarding the chairman's human capital, and we conclude that profitability was not dependent on this dimension.

	Human C	apital (Cajas	vs Banks)		
	Model 6	Model 7	Model 8	Model 9	Model 10
	Random	Random	Random	Random	Random
	effects	effects	effects	effects	effects
VARIABLES	ROA	ROA	Z-score	Z-score	Imp.Loans /
		Volatility	(full	(3-year	Gross
			sample)	window)	Loans
Chairman's previous	0.0007	-0.0038	-0.0006*	0.0050	-0.0173
banking experience (years)	(0.0090)	(0.0045)	(0.0003)	(0.0115)	(0.0165)
Chairman's entity	0.0013	-0.0030	-0.0002*	-0.0190***	-0.0155**
experience (years)	(0.0042)	(0.0021)	(0.0002)	(0.0055)	(0.0077)
Chairman: education 2 (non economics	-0.2038	0.0824	0.0030	0.1181	-0.5058*
degree)					
(the omitted is Chairman with no education)	(0.2123)	(0.0966)	(0.0063)	(0.2280)	(0.3057)
Chairman: education 3 (economics	-0.0303	0.0403	0.0088	0.0962	-0.0690
acg.cc)	(0.2238)	(0.1050)	(0.0070)	(0.2543)	(0.3458)
Chairman: education 4 (PhD, MBA)	0.0604	0.1831*	0.0008	0.4716*	-0.4286
	(0.2369)	(0.1107)	(0.0074)	(0.2689)	(0.3726)
Chairman has political affiliations	0.0802	-0.0816	-0.0037	-0.2166	-0.0636
	(0.1389)	(0.0654)	(0.0044)	(0.1606)	(0.2230)
Bank $(1 = \text{commercial bank}; 0 = \text{Caia})$	0.2365	0.1315	0.0201***	0.3467*	-0.0452
	(0.2035)	(0.0851)	(0.0054)	(0.1957)	(0.2824)
(risis (1 = 2008 and 2009 years))	-0 5003***	0 1539***	0.0107**	1 6492***	4 8238***
	(0 1107)	(0.0609)	(0.0047)	(0 1798)	(0 2568)
Chairman (education 4) x Crisis	-0 1916	-0.0630	-0.0006	-0 5212**	-0.8355***
chaiman (coucation 4) x chisis	(0 1328)	(0.0730)	(0,0057)	(0 2131)	(0 3041)
Chairman has political affiliations x Crisis	-0 1126	0.0904	0.0076*	-0.0081	0 0754
	(0.1084)	(0.0602)	(0.0047)	(0 1778)	(0.2524)
Bank v Crisis	0 1335	-0.0795	-0.0126**	_0.5208***	_1 1087***
	(0 1195)	(0.0663)	(0.0120)	(0 1957)	(0.2862)
In Sizo	0.0133	-0.0082	-0.0035**	0.0577	0.12002/
	(0.0606)	(0,0285)	(0.0033	(0.0577	(0.0861)
Gross Loans/Total Assets	0.0030	-0.0002	-0.0006***	0.0004	0.0007
GIUSS LUAIIS/ IUIAI ASSEIS	(0.0050	-0.0002	-0.0000	(0.0004	(0,0099)
Constant	0.0031)	0.0024)	0.0002/	(0.0030) 5 2210***	0.0002)
Constant	(0.4909	(0.2141	(0.0079	-3.3310	-0.3808
Time dummice	(0.6477) Voc	(0.3009) Voc	(0.0230)	(0.7610)	(1.1451)
Observations	165	165	241	765	165
	0 1 2	541	241	540	212
$\pi$	U.I.3 110 46***	U.II FF 60***	U.32	0.34 220.26***	U./3
r-iduu (Cill )	118.40	22.08	124.08	220.30	1008.82
Standard errors in parentneses					
^^^ p < 0.01, ** p < 0.05, * p < 0.1					

Table 3. The role of chairman's human capital in commercial banks and Cajas.

As in the previous table, commercial banks seem to favour more risk-taking than *Cajas* in general, but during the crisis they perform better in terms of risk-management compared to *Cajas* (Models 8, 9 and 10). Otherwise, the effects of the control variables are the same as in the previous basic models seen in Table 2. We have tried some robustness checks which are available upon request. For instance, we have omitted the chairman's experience variables in some models. We have also omitted the chairman's education and the corresponding interactions. Finally, we have also included the interaction of chairman's political affiliation, bank and crisis variables. The results of the robustness checks do not affect the consistency of the other variables, their significance or their sign.

Finally, we focus on the effects of the *Cajas*' governance, ownership structure and the presence of politicians on their performance, reported in Table 4. We see no significant effect of having different stakeholders' % seats on their performance and risk in general but, once the crisis hits, we can observe that *Cajas* with more employees and depositors in their governing bodies perform better in terms of ROA and risk. In contrast, the presence of more politicians does not help in the crisis, and, in fact, the coefficients favour the crisis, although they are not significant. So, we can conclude that the presence of politicised seats in the *Cajas*' governance bodies has no effect on the profitability or the risk-management but, unlike the presence of other stakeholders (e.g., employees), they do not help either to increase the *Cajas*' resilience in times of crisis (Models 11–15).

A higher level of politicisation does not necessarily mean a worse performance for *Cajas*, given the previous mixed results and the observation of what has happened to *Cajas* in individual terms (i.e., there are some examples of very highly politicised *Cajas*, like BBK or Unicaja, that are, nevertheless, examples of economic success). But we can conclude that, in general terms, politicisation did not help either to change *Cajas*'

	Corpor	ate Governan	ce (Cajas)		
	Model 11	Model 12	Model 13	Model 14	Model 15
	Random effects	Random effects	Random effects	Random effects	Random effects
VARIABLES	ROA	ROA Volatility	Z-score (full sample)	Z-score (3-year window)	Imp.Loans / Gross Loans
Executive chairman	0,2112** <i>(0,0904)</i>	0,0075 <i>(0,0484)</i>	-0,0029 (0,0033)	-0,1341 <i>(0,1988)</i>	0,0698 <i>(0,2964)</i>
% of Employees' seats (the omitted is % of Founders' seats) % of Depositors' seats	-0,0642 (1,3674) -0,1139 (0,5211)	-0,2343 (0,7313) 0,0719 (0,2786)	0,0217 (0,0501) 0,0050 (0,0191)	-0,3774 (2,9975) 0,7990 (1,1434)	-0,0593 (4,4686) -0,9625 (1,7040)
% of Municipalities and Regions' seats (Politicisation) Crisis (1 = 2008 and 2009 years)	0,3032 (0,3875) -1,4869***	0,0086 (0,2074) 0,7520*** (0,2165)	-0,0023 (0,0142) 0,0469***	0,3255 (0,8488) 2,8389***	-0,2973 (1,2559) 4,0793*** (1,1226)
Executive chairman x Crisis	-0,0235 (0.1028)	0,0226	-0,0012 (0,0040)	0,0351	$-0,9329^{***}$
% of Employees' seats x Crisis	3,8091** (1,5634)	-2,3546*** (0.8959)	-0,1787*** (0.0604)	-0,7278 (3.1136)	0,6274
% of Depositors' seats x Crisis	1,5056** (0,6063)	-1,0369*** (0,3475)	-0,0554** (0,0234)	-3,4023*** (1,2076)	–0,7941 (1,8114)
% of Municipalities and Regions' seats x Crisis Ln Size	-0,1308 (0,4580) 0,0187	0,1577 ( <i>0,2626</i> ) 0,0321	0,0095 ( <i>0,0177</i> ) 0,0001	-0,4334 (0,9128) 0,0546 (0,0056)	2,0856 ( <i>1,3607</i> ) 0,0420
Gross Loans/Total Assets	(0,0390) 0,0027 (0,0053)	(0,0206) 0,0011 (0,0030)	(0,0014) 0,0001 (0.0002)	(0,0866) 0,0108 (0,0114)	(0,1293) 0,0021 (0,0165)
Constant	0,7030 (0,6851)	-0,1310 (0,3718)	0,0073 (0,0254)	-4,8206*** (1,4811)	1,2150 (2,1933)
Time dummies Observations R <sup>2</sup> <i>F</i> -ratio (Chi <sup>2</sup> )	Yes 249 0.36 151.38***	Yes 249 0.24 78.87***	Yes 249 0.20 71.96***	Yes 248 0.37 185.84***	Yes 238 0.70 738.19***
Standard errors in parentheses *** p < 0.01, ** p < 0.05, * p < 0.1					

<b>Table 4.</b> Cajas' governance and politicis	<b>able 4.</b> Cajas'	governance	ana	politicisatior
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behaviour in the presence of a crisis, including their approach to risk taking. Or at least, we cannot conclude that *Cajas*' politicisation helps to increase the resilience of this stakeholder organisation in the crisis, since hypothesis H3 is not supported. In contrast to this, the presence of Employees' seats and Depositors' is associated with better results on risk management during the crisis, highlighting the positive influence of these groups in the *Cajas*. We have also conducted some robustness checks for this part by including the chairman's political affiliation and its corresponding interactions, but the results do not affect the consistency of the other variables, their significance or their sign.

## 6. Conclusion

Spanish savings banks (Cajas) and commercial banks have experienced very different fates. While most Cajas had already disappeared by the end of 2012, almost all the Spanish commercial banks have withstood the crisis in a successful way. Our aim is to assess if the banks' governance practices and the chairman's human capital can explain such different fates for the two types of banks that shared, almost equally, the Spanish market. We test if there are differences in terms of the Cajas' performance with respect to banks and among themselves, going beyond a good type of banks (the commercial ones) and a bad type (Cajas). Some authors have pointed out that neither the composition of the different governance bodies nor the role played by politicians can explain the Cajas results. Neither Cuñat and Garicano (2010) nor García-Meca and Sánchez-Ballesta (2014) find any significant effect of the politicisation of governance bodies on the Cajas' distress during the financial crisis. Nevertheless, risk governance has been largely neglected. It seems reasonable to expect that a more dedicated board is needed. And therefore, the human capital of the controlling members becomes an important issue. Although Corporate Governance emphasises the presence of independent board members, the needs, in the case of banks, come more from the presence of field experts, able to calibrate the risk adopted by the managers. Measuring human capital is a complex task, but we have shown that using some proxies, like education and experience, we start getting some significant effects. It is in this sense that our use of more detailed data concerning the chairman may help, also comparing its effects, side by side with the presence of politicians and other stakeholders in the boards.

We contribute to the field in several ways. First, we cover a wide spectrum of performance definition with measures like ROA, ROA volatility, Z-score (with both 'full sample' and 'year-window' variants) and Impaired Loans/Gross Loans. Second, we make use of wider dataset compared to previous studies, since we analyse 42 *Cajas* (compared to the average of 30 *Cajas* analysed in previous studies) for the period 2004–2009, covering both the pre-crisis period and the subsequent crisis. Third, we make use of a more detailed description of the chairman's human capital. We consider previous banking experience, formal education, and political background to get a better grasp of these important issues. The presence of measures of the chairman's human capital, jointly with the stakeholder composition can help us to get clearer results. Fourth, we make a more accurate use of bank-specific control variables and their interactions. Our results may be relevant to banking regulators and future supervisory policies, and not only for Spain but also for other countries where stakeholder-oriented institutions hold important shares.

In this work, we find significant differences in banks' performance and risk during the pre-crisis and the crisis periods, as well as differences between commercial banks and *Cajas*. And as shown in several earlier studies, there is no difference in terms of profit-ability between banks and Cajas. Governance features (such as board composition and politicisation) and human capital also play a role to explain the heterogeneous results in *Cajas*. We find that commercial banks incurred in more risk than *Cajas* during the pre-crisis period. However, commercial banks managed their risks in a better way than *Cajas* during the crisis period and showed a better performance. These results are coherent with the subsequent restructuring of the whole sector and confirm the different risk-taking behaviour models between commercial banks and *Cajas*.

Our paper contributes to the scarce literature assessing the relationship between human capital, governance dimensions and banks' performance, while establishing additional knowledge about the reasons behind the collapse of many Spanish savings banks. On the one hand, those banks with a chairman that had more years spent in the current bank and a top degree in their education, performed better than those with not such chairman's profile, especially during the crisis and in terms of risk management. Some authors under the resource-based theory (e.g., Hitt et al., 2001) have argued that competitive advantages (which may induce a better performance) respond more to intangible resources than to tangible ones. Firm's knowledge is an example of intangible firm-specific resource, and it mainly resides in the organisational human capital. More efforts in the understanding of these intangibles should be welcomed.

Our results do not offer evidence about a significant influence of the chairman's political affiliation on banks' performance. Nevertheless, we have also shown that, unlike other stakeholders such as employees and depositors, the politicisation of *Cajas (chairmen and political representatives)* did not bring improvements on the resilience of these stakeholder-oriented organisation in times of crisis.

In terms of the limitations of this study, we acknowledge that better measures of performance could be invoked. First, and rather than comparing the average performance of commercial banks and Cajas, one could try the comparison of the same institutions or similar institutions before and after the crisis, using matching or synthetic control groups given the relatively small population of banks. Nevertheless, this approach would take us far from our goal of analysing the human capital and the presence of different stakeholder types. Second, one could also approach the ex-post performance, using the amount of funds finally received from the public authorities (FROB (2019) and FGD) rather than using the Cajas' accounting measures. In fact, we have collected those figures for the different Cajas, and we have analysed the relevance of different variables such as the role of Education, having an executive chairman or the presence of highly politicised boards. Only the presence of an executive chairman becomes significant. Nevertheless, we must point out that using the real funds received by banks is also subject to limitations. The authorities were injecting these resources mostly to groups of Cajas, not individual Cajas directly, forcing us to use the individual proportions in the merger processes than followed the crisis. These adjustments may distort the real results. The concentration process has continued in the banking industry and, even in 2021, there are still some additional mergers in the waiting list.

Finally, we want to mention that there is the possibility that *Cajas* experienced an additional information problem (aggravated by a potential lack of human capital) during the 'happy' pre-crisis years in Spain, a problem that only emerged after the crisis hit. For instance, the evidence noted by Illueca et al. (2014) about the negative effect of the 1988 Spanish banking deregulation (i.e., the removal of branching barriers on the *Cajas*) in connection with the specific governance nature (and the politicisation) of *Cajas* over their *ex ante* risk-taking and their *ex post* loan defaults, could help to explain the existence of a differentiated behaviour between commercial banks and *Cajas*. *Cajas* expanded rapidly in new territories after deregulation, with less knowledge of the conditions and thus taking residual high risks; mostly focusing on real-estate risk shares and funding several nonviable political projects because of the political influence in their governing bodies). This particular behaviour of many *Cajas* cause a deferred-distress problem, with covered information during the boom period and unmasked during the financial crisis.

*Cajas* may have disappeared from the Spanish Banking scenario, but the real impact of the crisis on their governance structures and investment decisions, and the loss of organisational diversity will still be a source of relevant debates to come.

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Institutions that make it up (2008)	Transaction date		Resulting bank (2012)
BBVA		March 2012	BBVA
UNNIM: Caixa Sabadell, Caixa Terrasa, Caixa Manlleu	March 2010		
Bankinter			Bankinter
Caixabank: La Caixa + Caixa Girona	October 2010	March 2012	Caixabank
Banca Cívica: Caja Navarra, Caja Canarias, Caja Burgos	April 2010		
Caja Sol + Caja Guadalajara	December 2010		
Banco de Valencia	December 2012		
BBK-Cajasur	July 2010	December 2011	Kutxabank
Caja Vital/Kutxa			
Sabadell	December 2011		Sabadell
CAM			
Santander, Banesto	December 2012		Santander
Unicaja	April 2010		Unicaja
Caja Jaén			
Banco Popular, Banco Pastor	June 2012		Popular
Ibercaja		July 2013	Ibercaja
Caja 3: CAI, Caja Círculo de Burgos, Caja Badajoz	December 2011		
Caja España	March 2010		Ceiss
Caja Duero			
Caja Murcia, Caixa Penedés, Sa Nostra, Caja Granada	June 2010		BMN
Cajastur-CCM	November 2009	April 2011	Liberbank
Caja Cantabria, Caja Extremadura			
Caja Madrid, Bancaja, Caja Ávila, Caja Segovia, Caja Rioja, Caixa Laietana, Caja Insular de Canarias	June 2010		Bankia
Caixa Catalunya, Caixa Tarragona, Caixa Manresa	March 2010		Catalunya
Caixa Galicia, Caixanova	June 2010		NCG
Caixa Ontinyent			Caixa Ontinyent
Caixa Pollença			Caixa Pollença

## Appendix 1. Summary of the Spanish banking-sector restructuring

Source: Own elaboration from Bank of Spain data. Note: *Cajas* are shown in *italic* to distinguish them from commercial banks.

12																						1,000		
11																				1,000		-0,166	(0000)	
10																		1,000		-0,224	(0000'0)	0,033	(0,008)	
6																1,000		-0,226	(0000.0)	0,042	(0,500)	-0,215	(0,001)	
8														1,000		-0,048	(0,369)	0,048	(0,442)	0,126	(0,044)	-0,106	(0,092)	
7												1,000		-0,024	(0,664)	-0,136	(0,012)	-0,024	(0,704)	0,003	(0, 958)	-0,034	(0,598)	
9										1,000		-0,140	(600'0)	0,040	(0,467)	0,292	(0000)	0,136	(0,032)	-0,013	(0,839)	0,078	(0,218)	
5								1,000		0,078	(0,165)	0,039	(0,492)	-0,006	(0,918)	-0,062	(0,273)	0,024	(0,712)	-0,068	(0,293)	0,027	(0,683)	
4						1,000		0,609	(0000)	0,161	(0,003)	-0,011	(0,844)	0,153	(0,005)	-0,081	(0, 134)	0,019	(0,767)	-0,056	(0,381)	0,014	(0,822)	
3				1,000		0,209	(0000)	0,395	(0000)	-0,026	(0,635)	-0,320	(0000)	0,039	(0,471)	-0,047	(062'0)	-0,041	(0,522)	-0,069	(0,276)	-0,003	(0,957)	
2		1,000		0,173	(100'0)	0,600	(0000)	0,370	(0000)	0,067	(0,218)	-0,047	(0,382)	0,014	(0,801)	-0,014	(162'0)	-0,081	(0,201)	-0,076	(0,234)	0,059	(0,355)	
1	1,000	0,237	(0000)	-0,369	(0000)	-0,163	(0,003)	-0,461	(0000)	0,047	(0,387)	-0,013	(0,814)	-0,072	(0,184)	0,089	(660'0)	0,040	(0,533)	0,076	(0,233)	0,082	(0,198)	
Мах	9,240	3,082		0,286		7,530		16,100		13,920		91,041		31,000		62,000		0,158		0,471		0,529		
Min	-3,060	0,000		0,000		0,036		0,030		6,806		2,790		0,000		0,000		0,050		0,063		0,167		
S.D.	0,791	0,330		0,027		766'0		2,110		1,265		11,602		5,773		11,834		0,032		0,083		0,108		
Mean	0,746	0,181		0,016		4,304		1,979		9,710		72,630		1,786		13,328		0,095		0,360		0,414		
	1 ROA (%)	2 ROA Volatility		3 Z-score (full sample)		4 Z-score (year window)		5 % Imp. Loans/Gross Loans		6 Ln Size		7 % Gross Loans/Total Assets		8 Chairman's previous	banking experience (years)	9 Chairman's entity	experience (years)	10 % of Employees' seats	(only Cajas)	11 % of Depositors' seats	(only Cajas)	12 % of Politicised seats (Municipalities and Regions)	(only Cajas)	Significance levels are in parentheses.

Appendix 2. Descriptive statistics and correlations

			Ĩ	uman Capital (Caias vs B	anks)		
	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21	Model 22
	Random effects	Random effects	Random effects	Random effects	Random effects	Random effects	Random effects
VARIABLES	ROA	ROA Volatility	Z-score (full sample)	Z-score (3-year window)	lmp.Loans / Gross Loans	lmp.Loans / Gross Loans	Imp.Loans / Gross Loans
Chairman's previous	0,0014	-0,0047	-0,0006**	0,0038	-0,0208		-0,0348**
banking experience (years)	(0600'0)	(0,0045)	(0,0003)	(0,0111)	(0,0165)		(0/11/0)
Chairman's entity	0,0007	-0,0026	-0,0002	-0,0177***	-0,0141*		-0,0132*
experience (years)	(0,0042)	(0,0021)	(0,0002)	(0,0054)	(0,0076)		(0,0079)
Chairman: education 2 (non economics degree)	-0,1883	0,0773	0,0030	0,1227	-0,4952		
(the omitted is Chairman with no education)	(0,2111)	(0,0947)	(0,0063)	(0,2153)	(0,3039)		
Chairman: education 3 (economics degree)	-0,0172	0,0324	0,0085	0,0966	-0,0983		
	(0,2228)	(0, 1033)	(0,0070)	(0,2418)	(0,3437)		
Chairman: education 4 (PhD, MBA)	0,0547	0,1929*	0,0014	0,4841*	-0,3899		
	(0,2358)	(0, 1089)	(0,0074)	(0,2563)	(0,3704)		
Chairman has political affiliations	0,0790	-0,0825	-0,0038	-0,2052	-0,0704	0,0630	-0,0799
	(0,1382)	(0,0644)	(0,0044)	(0, 1535)	(0,2215)	(0,2271)	(0,2327)
Bank (1 = commercial bank; 0 = Caja)	0,2376	0,1312	0,0201***	0,3407*	-0,0415	-0,1807	0,0641
	(0,2013)	(0,0831)	(0,0055)	(0, 1847)	(0,2807)	(0,2855)	(0,2962)
Crisis (1 = $2008$ and $2009$ years)	-0,4589***	0,1215*	0,0091*	1,3767***	4,4632***	4,1997***	4,2629***
	(0,1147)	(0,0629)	(0,0049)	(0, 1858)	(0,2586)	(0,2533)	(0,2536)
Chairman (education 4) x Crisis	-0,1690	-0,0785	-0,0013	-0,5681***	-0,9062***		
	(0,1338)	(0,0733)	(0,0057)	(0,2150)	(0,3021)		
Chairman has political affiliations x Crisis	-0,1850	0,1466**	0,0105**	0,1324	0,3618	0,3971	0,3646
	(0,1204)	(0,0664)	(0,0052)	(0, 1963)	(0,2719)	(0,2732)	(0,2743)
Bank x Crisis	0,0380	-0,0044	-0,0087	-0,3338	-0,7070**	-0,6468**	-0,7000**
	(0,1383)	(0,0761)	(0,0059)	(0,2247)	(0,3208)	(0,3206)	(0,3211)
							(Continued)

Robustness checks 1. The role of chairman's human capital in commercial banks and Cajas

(Continued).

			Ŧ	uman Capital (Cajas vs B	anks)		
	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21	Model 22
	Random effects	Random effects	Random effects	Random effects	Random effects	Random effects	Random effects
VARIABLES	ROA	ROA Volatility	Z-score (full sample)	Z-score (3-vear window)	Imp.Loans / Gross Loans	Imp.Loans / Gross Loans	Imp.Loans / Gross Loans
Chairman has political affiliations x Bank x Crisis	0,3850	-0,3039**	-0,0162	-0,7949*	-1,6676***	-1,5429**	-1,5799**
	(0,2775)	(0,1522)	(0,0118)	(0,4436)	(0,6273)	(0,6348)	(0,6347)
Ln Size	0,0189	-0,0127	-0,0037**	0,0492	0,0976	0,0643	0,0601
	(0,0689)	(0,0278)	(0,0018)	(0,0593)	(0,0861)	(0,0921)	(0,0906)
Gross Loans / Total Assets	0,0039	6000'0-	-0,0007***	-0,0011	0,0045	0,0031	0,0026
	(0,0052)	(0,0024)	(0,0002)	(0,0056)	(0,0084)	(0,0089)	(0,0088)
Constant	0,3721	0,3099	0,0925***	-4,9705***	0,2449	0,0898	0,4060
	(0,8441)	(0,3556)	(0,0233)	(0,7860)	(1,1622)	(1,2349)	(1,2160)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	341	341	341	340	315	315	315
R <sup>2</sup>	0,12	0,13	0,32	0,36	0,74	0,70	0,71
<i>F</i> -ratio (Chi <sup>2</sup> )	120,17***	59,88***	126,04***	219,81***	1038,05***	985,69***	998,55***

# Robustness checks 2. Cajas' governance and politicisation

		Corp	orate Governa	nce (Cajas)	
	Model 23	Model 24	Model 25	Model 26	Model 27
	Random effects	Random effects	Random effects	Random effects	Random effects
VARIABLES	ROA	ROA Volatility	Z-score (full sample)	Z-score (3-year window)	Imp.Loans / Gross Loans
Executive chairman	0,2032	0,0680	-0,0016	0,0992	-0,0139
	(0,1284)	(0,0664)	(0,0046)	(0,2668)	(0,4331)
Chairman has political affiliations	-0,0536	0,0972*	0,0062*	0,4662**	0,1957
	(0,1058)	(0,0542)	(0,0038)	(0,2200)	(0,3491)
% of Employees' seats	0,0662	-0,5106	0,0069	-1,6114	-0,3118
(the omitted is % of Founders' seats)	(1,4231)	(0,7283)	(0,0507)	(2,9640)	(4,6332)
% of Depositors' seats	-0,1675	0,1287	0,0110	1,1161	-0,7113
	(0,5428)	(0,2775)	(0,0193)	(1,1319)	(1,7596)
% of Municipalities and Regions' seats	0,3769	-0,1329	-0,0117	-0,3609	-0,5843
(Politicisation)	(0,4241)	(0,2175)	(0,0151)	(0,8823)	(1,3662)
Crisis $(1 = 2008 \text{ and } 2009 \text{ years})$	-1,4911***	0,7635***	0,0475***	2,8943***	4,0865***
	(0,3779)	(0,2170)	(0,0146)	(0,7530)	(1,1240)
Executive chairman	0,0318	-0,1289	-0,0043	-0,5270	0,0509
x Chairman has political affiliations	(0,1594)	(0,0831)	(0,0058)	(0,3288)	(0,5314)
Executive chairman x Crisis	-0,0261	0,0294	-0,0009	0,0646	-0,9223***
	(0,1030)	(0,0591)	(0,0040)	(0,2056)	(0,3092)
% of Employees' seats x Crisis	3,8143**	-2,3806***	-0,1795***	-0,8522	0,5461
	(1,5631)	(0,8977)	(0,0604)	(3,1141)	(4,6748)
% of Depositors' seats x Crisis	1,5186**	-1,0601***	-0,0571**	-3,5135***	-0,8091
	(0,6066)	(0,3484)	(0,0234)	(1,2087)	(1,8131)
% of Municipalities and Regions' seats	-0,1217	0,1484	0,0086	-0,4927	2,0323
x Crisis	(0,4580)	(0,2632)	(0,0177)	(0,9136)	(1,3623)
Ln Size	0,0154	0,0330	0,0005	0,0649	0,0673
	(0,0410)	(0,0205)	(0,0014)	(0,0859)	(0,1360)
Gross Loans/Total Assets	-0,0023	-0,0009	-0,0001	-0,0107	-0,0045
	(0,0055)	(0,0030)	(0,0002)	(0,0116)	(0,0171)
Constant	0,7065	-0,1321	0,0060	-4,8421***	1,1300
	(0,6958)	(0,3644)	(0,0252)	(1,4465)	(2,2222)
Time dummies	Yes	Yes	Yes	Yes	Yes
Observations	249	249	249	248	238
R <sup>2</sup>	0,36	0,26	0,22	0,40	0,71
<i>F</i> -ratio (Chi <sup>2</sup> )	151,32***	82,56***	74,78***	190,54***	738,60***
Standard errors in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					