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Did Good *Cajas* Extend Bad Loans? Governance, Human Capital and Loan Portfolios*

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Abstract

Did financial institutions with better governance arrangements weather the recent financial crisis better? And how about those with more qualified chairmen? We answer these questions in the context of the Spanish Savings and Loans (*Cajas*). We find that neither formal governance institutions (e.g. the way the board is appointed) nor real governance (e.g. the actual composition of the board and the role played by political parties in it) are highly correlated with the composition of the loan book at the peak of the financial crisis (the size of the portfolios of real estate and individual loans) or with the performance of these loans (the amount of non performing loans in the crisis or the decrease in ratings). On the other hand, we find a clear and significant impact of the human capital of the *Caja* chairmen on the measures of loan book composition and performance. In particular, we find that (1) *Cajas* whose chairman was previously a political appointee have had significantly worse loan performance; (2) *Cajas* whose chairman did not have postgraduate education have significantly worse performance; and (3) *Cajas* whose chairman had no banking experience had significantly worse performance. We examine the implications of these findings for our understanding of the origins of the crisis and for the future regulation of the *Cajas*.

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1 Introduction

In hindsight the signs of a developing housing bubble appear as clear in Spain as in the US or Ireland: Real Estate prices grew, in real terms, by over 100% between 1999 and 2007. And yet up to 2007 real estate loans continued funding one of the largest real estate booms in the world, so that 860,000 housing starts took place in 2006. Two thirds of the housing units built in Europe between 1999 and 2007 were built in Spain. By the end of the construction boom (end of 2008), the stock of loans to real estate developers and builders reached almost 500bn euros, equivalent to 50% of Spain's GDP. This lending bonanza appears foolish in hindsight: investment banks now estimate that up to 50% of loans to developers will be irrecoverable.

Not all lenders took the same decisions. In fact, as we document below, the performance differential between different lenders are huge: the share of real estate loans in the *Cajas* books' at the height of the boom (2006) ranges, in our sample, between just over 10% and almost 50%, and the share of non-performing loans in the Summer of 2009 also ranges widely, between just over 1% and close to 7%.¹ The question we study in this paper is what accounts for such heterogeneity. In particular, we study whether differences in human capital and in governance can partly account for it.

Our analysis contributes to illuminate the general debate on decision making up to the crisis on the conflicting role of incentives and bounded rationality on it. One side of the debate argues that those in charge of the key decisions may not have been informed enough, knowledgeable enough, or smart enough to understand what they were doing- a case of 'bounded rationality'; the other side argues that they may have foreseen it, but it may not have been in their interest to do the right thing—in other words, their incentives were misaligned, and the corporate governance arrangements put in place by the shareholders and other stakeholders did not impose the necessary discipline. Of course, a third option is possible, namely that those lending decisions were, at the time, optimal and only appear wrong-headed to us, in retrospect. Our data allows us to differentiate, at least partially, among these three hypothesis, and thus, hopefully, will help us clarify the general debate on the roots of the ongoing worldwide financial crisis.

Beyond these broad issues, we also to illuminate the current policy debate in Spain on the regulation of this segment. Some of the *Cajas* are among the most successful commercial banks in Spain, but there is a lot of heterogeneity in their performance. Our aim is to explain part of this heterogeneity in performance on the basis of governance and human capital issues. This is a particularly

¹Or 17.3% if we include Caja de Castilla la Mancha, which has been taken over by the Bank of Spain for prudential reasons. More on this later.

important exercise since *Cajas* are an unusual segment of the Spanish financial sector, characterized by heavy political involvement. As a result, moves towards changing the regulation of the segment are continuously being discussed. Moreover, *Cajas* do not have tradeable participations and are not quoted in the stock market- thus take-overs and other control mechanisms relying on the share price, which play a role in banks, do not act as automatic disciplining channels here.

The incentive alignment problem takes a particular form in the Spanish *Cajas*. Local governments and local political parties in Spain have a much closer relationship with them than with private banks. Formally, a substantial proportion of board members are directly appointed by local and regional governments. Moreover, many other board members that are formally appointed by other types of institutions (depositors, workers, founders. . .) are often quite connected in the political sphere.² Political membership is known to be correlated with voting patterns in boards and firm performance, and political connectedness of firms is also related to the way legislators act when passing regulation that is important for those same firms.³ In this sense, it is reasonable to expect the level of political involvement of their managers to matter. Some of these effects may be associated with conflicting interests and thus affect performance negatively. Some others, such as those derived from better coordination between banks and local governments, may be positive. The relative importance of each of these channels may also be different during expansion times or during crises.

We study empirically how corporate governance matters by examining the impact of the board composition and structure on loan losses, rating changes and the composition of the loan portfolio. Pre-existing literature on Spanish savings banks has focused on the effects of the formal level of political influence, using information from the bylaws of the different savings banks. However, the effective level of governance has attracted much less attention, probably due to the difficulty of obtaining such information. In this paper we exploit new information on the actual composition of the board, as well as on the connection between it and political parties and institutions to study the effect of actual, as oppose to formal, governance.

The alternative hypothesis implies that losses are the result of the absence of knowledge or human capital of some of the leaders of the institution, who cannot effectively monitor their subordinates, provide them with input in their decisions and coordinate their efforts- the main roles of CEOs. To do this, we have hand-

²Sumner and Webb (2009) show how loans in commercial banking are linked to the composition of the board of the bank. Through a related argument Mian and Khwaja (2005) show that politically connected firms get more loans from commercial banks.

³Mian, Sufi and Trebbi (2009) show how local legislators vote according to the needs of their local financial institutions.

collected data on curriculum vitae, political affiliation, loan books, etc. of the Chairmen of most *Cajas* over the last 9 years and constructed synthetic indexes of the Chairman's human capital for each *Caja*.⁴

Our data allows us to reject the luck hypothesis. Under the null, that is if the variance in lending decisions is the product of luck, the non-performing loans of each *Caja* should not be related to either human capital or corporate governance issues, after controlling for size and other systematic factors. In fact, we find that there are clear and significant patterns in governance and human capital of the Chairman that are correlated with its performance. Most significantly, the human capital level of the Chairman of the *Caja* is closely correlated with the loan portfolio of the *Caja* before the Crisis (in 2007) and with the loan performance of the *Caja* during the crisis. In particular, a *Caja* run by someone with post-graduate education, with previous banking experience, and with no previous political appointments, is likely to have significantly less real estate lending as a share of total lending, a larger share loans to individuals, a lower rate of non-performing loans, and a lower downgrade in its rating.

Specifically, those *Cajas* led by Chairmen without graduate studies extended 7% more of their portfolio as loans to individuals and 5-7% less to real estate loans. Consistently with this, as of July 2009, they had significantly lower non performing loans, around 1% less. Given that the average in the sample is around 5%, this is a 20% drop just from this variable. Despite the fact that they were more conservative during the boom, these *Cajas* also had 0.2% higher return on assets (ROA) in 2006. The role of banking experience is also very significant: *Cajas* led by those without banking experience had a 1% increase in non performing loans; this also partly reflects a larger portfolio allocation to real estate, of around 6% more. These two effects are cumulative, that is compared to one who has graduate education and relevant experience, a chairman without both increases current non performing loans in his *Caja* by 2 percent points. This is a huge effect, of around 40% of non-performing loans. These numbers are significant and quite precisely estimated.

As to political connections of the Chairman, having been an elected public official previously had also significant effects on non-performing loans, with an increase in around 0.8% of the share to the non performing loans for *Cajas* run by previously elected public officials- that is political connections account for 1/5 of the average mean non-performing loan.

On the other hand, we find limited evidence that the composition of the board of the *Caja*, even its politization, also have played a role. Taking all *Cajas* together, the politization of boards seems to be correlated with less real estate

⁴Our results are robust to using, instead of a synthetic measure of average human capital, the human capital of the current chairman.

investments but this is largely driven by the subset of Basque *Cajas*. Once this is factored in, those boards with a dominant party are in fact associated with worse portfolio quality; clear effects cannot really be discerned.

Of course, all of these numbers have to be taken with the proverbial grain of salt. First, we cannot actually prove any causal connection, of course- some unobservable, third variable could account for both low human capital chairmen and bad loan books. Second, our data are incomplete in some instances. We have collected most data from public information, as we discuss below; public information on chairmen of some *Cajas* is hard to come by.

A third worry, but one we are less concerned by, is hindsight bias- why focus on one accident or bad event when it could be an inevitable side effect of good choices or the result of bad luck? First, as we argued before, the bad luck version of this hypothesis does not predict any correlation between failure and human capital. Second, from a policy perspective, we believe that minimizing the risk of default by a financial institution is an explicit aim of policy and thus failure is a legitimate aim of research. Third, if risk taking is at stake, we expect the same variables that predict worse performance in the crisis should predict better performance beforehand. In fact, as we shall show, it is not the case that *Cajas* more in trouble were more profitable previously. On the contrary, the same factors that predict worse non-performing loan performance also predict lower return on assets before the crisis.

The paper proceeds as follows. Section 2 presents the data sources and the key stylized facts. Section 3 studies the more ‘traditional’ explanations, the role of the Board of the *Caja*. It begins by considering the role of the formal rules that determine the board composition and structures, and then studies the available measures of ‘real’ political interference in the governing of the *Cajas*. Section 4 presents the evidence on the role of Chairman’s human capital. Section 5 concludes.

2 Data and Empirical Approach

2.1 Data Sources

Our empirical analysis requires drawing data from a number of sources. Most of these data was collected by us from a wide range of public sources. We collected data on human capital of the current and past chairmen; on formal and effective corporate governance; on the loan portfolio as of 2007; on ratings downgrades between 2007 and now; and on the non performing loan as of July 2009.

We collected data on human capital (education, experience, political affiliations, and previous political experience) about the Chairmen of the savings

banks using information available through the web sites of the *Cajas* and news clippings about their appointment. This information was then supplemented by additional information provided by some of the savings banks' press offices that have cooperated with us. Moreover, some additional information -contained in the financial press, in the Boardex database and the Registro Mercantil- has also been used to supplement it. Rather than using the human capital of any one past or present Chairmen per *Caja*, we track the different Chairmen in charge of each *Caja* from 2001 and construct the equivalent human capital and political background variables for a *synthetic* Chairman that is an average of the Chairmen over the past 9 years weighted by the number of years that each Chairmen was in charge. To collect information about the formal structure of the boards and the financial links between *Cajas* and political parties we used Corporate Governance Reports. *Caja* Chairmen have, by law or in practice, important executive roles, regardless of the statutory responsibilities the rules give them.

We attempted to complete the public information collected over the summer of 2009 by directly contacting all of the *Cajas* for whom the information was missing. Sadly, perhaps because of the sensitivity of the issue, the response rates were very low and almost no *Cajas* answered our request.

The dependent variables in all of our analysis are real estate loans, individual loans, changes in ratings and share of non performing loans. These came from three different sources: the Annual Balances, the Savings banks' Semianual Reports results filed with the CNMV, and reports published periodically by international rating agencies (S&P, Moody's and Fitch)

For the ratings we transformed the data from the alphabetic (AAA etc.) codes used by rating agencies to a numeric scale using the transformation proposed by Miguel García-Posada y Josep M.^a Vilarrubia (2008). In our regressions we used every single piece of information we found, with one exception: the non performing loan data for Caja Castilla la Mancha (CCM). By the time we collected the non-performing loan information (the data are for the first semester 09, as of July 1, 2009) this institution had been taken over by the Bank of Spain. While the distribution of non-performing loans for our sample without CCM has a mean of 4%, a minimum of 1.75% and a maximum of 7.38%, CCM reported non-performing loans of 17.3%, with a jump during the months of the intervention of over 8%. We believe that this huge difference responds to very different accounting standards used by *Cajas* accountants versus the Bank of Spain.⁵ As a result of this non-comparability, we have run all of our regressions without this value to avoid skewing our results.⁶

⁵See Cugat and Garicano "¿Para cuándo la reestructuración del sistema financiero español?" El País, 13 September 2009.

⁶None of our results changes sign, and only one becomes non-significant, the coefficient on

Fig 1. 2007 Real Estate Loans vs. 2009 Non Performing Loans

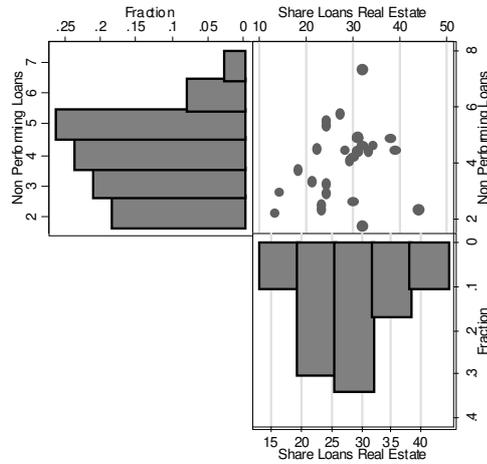


Figure 1:

2.2 Stylized Facts and Empirical Strategy

The key stylized fact we exploit is the relation between the portfolio allocation decisions during the ‘bubble years’ (before 2007) and the pain that the banks suffered later. Figure 1 serves as both data description and as a summary of this relation. Clearly, larger shares of real estate loans and smaller shares of consumer loans or ‘loans to individuals’ pre 2007 are correlated with higher default today with higher delinquency rate as well as with higher downgrade probability. A large part of the bad loan issues in Spain are derived from the 320bn euro stock of loans allocated to real estate developers and 160bn euro of loans to builders..

Figure 1 shows that there is a wide dispersion in the allocation of loans to real estate. The average of the 30 *Cajas* for which we have the 2007 real estate data is 27.7%, with the share ranging from 13% to 44%. The share of non-performing loans on July 1, 2009 varied widely, between 1.75% and 7.3%. Moreover, the figure shows a very clear correlation between both.

Thus it is clear in hindsight that allocating a large share of the loan book to real estate investments was a bad decision. Of course the question is whether it was also the wrong decision *ex ante*. We cannot really have a firm view on this without some analysis. Our aim here is simply to discover which specific

postgraduate education, if we include this outlier. On the other hand the impact of appointing politicians for non political board seats is strongly negative if we include CCM in the sample.

characteristics of *Caja*'s boards and executives explain their portfolio decisions. Under the null, where nothing could be known ex ante, we would not expect that, for example, chairmen with higher levels of human capital would allocate lower (or higher) fractions of their portfolios to real estate; or that those who are most connected would instead allocate larger shares. Thus our tests, were we to find clear relations between human capital, board structure or political connections and portfolio decisions, would allow us to reject the null that the variation in loan portfolio decisions was essentially random or due to 'luck'.

Endogeneity and omitted variable biases are a serious concern throughout this study. To some extent it is an unavoidable issue, since we cannot exploit the panel data dimension of our information. Since performance during the current crisis is the main focus of the article, we are implicitly imposing the cross-sectional nature of the analysis. There are however some results that reinforce the validity of the analysis: First, the inclusion in the regressions of size controls that could be correlated with various omitted variables does not seem to affect our results much. Second, here is substantial heterogeneity in performance for *Cajas* of similar size and in the same region. Finally, some reverse causality concerns along the lines of poor performing *Cajas* trying to improve their governance and human capital should generate biases that go against our results.

3 Corporate Governance

Savings banks do not formally have shareholders. In terms of control rights, the extended board of the savings banks constitutes the equivalent of a general shareholders' meeting. With respect to economic rights, the not for profit foundation or 'obra social' is closest to a shareholder.

The extended board of savings banks is formed by representatives of the local political authorities, representatives of the founders of the *Caja*, relevant social institutions, workers and other stakeholders. Their mandate is to maximize the long-term expected returns for the foundation; in this sense, their formal mandate is not that different from the objectives that a regular shareholder in a private bank would pursue. There is however a growing literature that shows that when shareholders of private corporations have other interests in the firms on top of maximizing the value of their shares, their voting patterns are affected.⁷ In the case of savings banks it is conceivable that there is some degree of conflict of interests between the maximization of a hypothetical shareholder's value and the objectives of the institutions present on the board.

⁷See among others the work of Agrawal (2008) on US union pension funds. Matvos and Ostrovsky (2007) on the strategic interaction of activist funds and the analysis of Harford, Jenter, and Li (2006) on how the levels of cross-ownership of shares affect merger negotiations.

3.1 Formal governance institutions

The formal institutions on governance is the aspect of Spanish *Cajas* that has attracted most interest in the academic literature. There is substantial heterogeneity in the way boards are appointed and this information is public. Several studies have sought to exploit this information to study the influence of governance structures on performance. Garcia-Cestona and Surroca (2007) study the differences in performance between *Cajas* formally controlled by non-political institutions (mainly depositors and workers) and those controlled by local authorities. They find that non-political *Cajas* focus on profit maximization and on the universal access to financial services, leading to better performance. On the contrary, contributing to regional development becomes the most favored goal when public administrations control the bank. Illueca, Norden and Udell (2008) show that *Cajas* are more likely to expand to other regions whenever the same political party is dominant in both regions and the board of the *Cajas* is dominated by local authorities. Several other studies have compared the efficiency levels of *Cajas* and private commercial banks trying to elicit whether there is a substantial difference in performance, in general with mixed results.⁸ While these latter studies provide interesting evidence they have certain limitations. Efficiency measures are generally unstable. Output measures and measures of risk from banking balance sheet data are controversial and may not be very informative during periods of expansion. Finally, these papers can exploit the panel nature of balance sheet data, however, their main variables of interest (i.e. the governance structure of savings banks) are in general constant through large periods of time so the advantage of using panel data is somewhat limited.

Existing studies have mainly concentrated on one aspect of governance: the extent of political influence on the savings banks and how it affects performance. The effect of political influence is ex-ante not obvious from a theoretical point of view. While stronger political influence may lead to conflicts of interest between maximizing shareholder's value and other objectives such as fostering regional growth or directed lending, political connections may provide valuable human capital related to institutional knowledge, private information or professional networks. In fact, it has been shown empirically that political connectedness is often valued by private corporations and that it affects firm value.⁹ Common measures of political influence that have been used in the analysis of Spanish savings banks include the share of board members appointed directly by local authorities.

⁸See Salas, V. , J Saurina (2002), Tortosa, E. (2002), Crespi R., M. A. Garcia Cestona and V. Salas (2004) among others.

⁹See for example Fishman (2001) and several follow-up papers.

How do these measures relate to the loan performance of the *Cajas*? Table 1 analyzes this effect. Each cell represents a different regression.

Table 1: Corporate Governance

	Loans to Real Estate		Loans to individuals		Non Performing Loans		Change in Rating (positive=increase)	
	(I)	(II)	(I)	(II)	(I)	(II)	(I)	(II)
%politics	4.000 (12.55)	4.183 (12.57)	-22.56 (14.82)	-22.87 (14.57)	0.718 (1.615)	0.697 (1.633)	-0.340 (0.244)	-0.339 (0.248)
%founders	0.669 (11.80)	-3.753 (12.62)	-3.448 (14.49)	3.682 (15.28)	-4.474*** (1.557)	-4.523*** (1.619)	0.315 (0.245)	0.339 (0.254)
Herf. Board	-2.465 (20.05)	-2.784 (20.09)	-9.966 (24.57)	-9.432 (24.25)	-2.702 (2.912)	-2.765 (2.943)	-0.249 (0.421)	-0.250 (0.427)
Observations	29	29	29	29	36	36	38	38
size controls		yes		yes		yes		Yes

Source: Corporate governance reports and own collection

The first variable of interest is the % of board members that are formally appointed through a political channel (local and regional governments). We do not find substantial effects of this variable on the lending behavior and portfolio performance of savings banks during this crisis. However we find mild negative effects on the rating change (statistically significant at a 17% rate). The second measure uses the % of board members that are appointed by the founders, which has often been used as a measure of political independence (although it can also be associated with different founder agendas). Again we do not find strong results on portfolio composition; however loan portfolios perform much better when there is a higher proportion of founders. The effect is quite strong both economically and statistically, an extra 11% of representation of founders (one standard deviation) leads to a DEcrease of 4.9% in the share of non performing loans (2.9 standard deviations). Thus consistently with previous findings and the theoretical hypothesis, the existence of a more independent boards is correlated with better loan performance.

Weak boards and dispersed ownership have also been under the spotlight as potential drivers of poor performance. Free riding and coordination failures among shareholders and board members can be responsible for poor oversight of management that leads to entrenched managers and poor performance. The degree of concentration of a board may also be associated with political diversity. To test these hypothesis we use as independent variable the Herfindahl index of the representation of the different institutions that form the board. The results do not show any strong patterns, with coefficients that are in general very imprecise.

Thus we do not find strong effects of formal measures of politization on portfolio choice; when it comes to performance we do find a clear positive effect of a larger founder share on non performing loan share and a mild negative effect

of the % of politically appointed board members on the savings bank rating. Overall, it formal governance measures do not show strong impacts on the performance of the Spanish savings banks during the current crisis, in line with some of the results in the preexisting literature that use more conventional performance measures.¹⁰

Of course, one has to bear in mind that the channels through which board members are appointed are only mildly correlated with the real level of political involvement of the board members. One of the added values of this study is that we collect public information about the board members and in particular we are able to assess whether they belong to a political party or have been appointed to political positions in the past. We move to this issue next.

3.2 ‘Real Governance’: Political Involvement and Loan performance.

In this section we concentrate on the effects of ‘effective’ rather than formal, political influence on performance during the current crisis. For this purpose, we collected public information about the political connection of the different presidents and board members of all the savings bank in our sample.¹¹ Individuals were classified as politicians if they belonged to a political party or had previously occupied politically appointed public positions. While public reports in the press, personal and institutional web-pages may be an incomplete source of information, it can still be treated as a valid proxy subject to measurement error. If anything, it is conceivable that our variables underestimate the level of political involvement of board members (i.e. some of them may not want to publicize their political connections). However, we do not expect that biases in terms of declaring a political membership should have a strong correlation with performance.

Figure 2 shows the correlation between a formal measure of political involvement (% of politically appointed seats) and a ‘real’ one (% of effective politicians). The red 45% line allows us to see which *Cajas* have more politically connected board members among those that are not formally appointed by political institutions. *Cajas* further out on the diagonal have more formal and real political involvement. The correlation between the two variables is positive, but not high,

¹⁰Of course, this does not necessarily mean that governance issues are unimportant in this case. Good governance is important for firms and even more so for savings banks that lack some of the market-based discipline devices such as the information contained in their share prices or hostile takeover threats. It may however reflect that the formal governance provisions across savings banks are not that different or relevant to determine lending decisions.

¹¹The sources of this public information are boardex, the public web pages of the institutions, news and publicly available web pages.

results in the last four columns show that this conservativeness, does not translate into a better portfolio performance.

Table 2: Politics and Performance

Panel A								
Explanatory Variable	Real Estate Loans		Loans to individuals		Non performing Loans		Change in Rating (positive=improve)	
	(I)	(II)	(I)	(II)	(I)	(II)	(I)	(II)
% Politicians	-12.15*	-14.03**	8.201	10.92	0.291	0.371	0.143	0.155
	(6.697)	(6.695)	(8.692)	(8.606)	(1.087)	(1.116)	(0.152)	(0.157)
Herfindahl Parties	-29.40***	-30.98***	30.63**	33.12**	-1.576	-1.520	0.247	0.258
	(10.58)	(10.44)	(13.73)	(13.30)	(1.696)	(1.730)	(0.245)	(0.250)
% top Party	-20.95***	-22.29***	19.45*	21.49**	-0.778	-0.732	0.133	0.141
	(7.526)	(7.419)	(9.948)	(9.670)	(1.204)	(1.229)	(0.172)	(0.176)
Politicians in non political seats	-4.125	-3.713	3.375	2.367	0.0925	0.0592	0.138	0.150
	(3.935)	(4.276)	(6.486)	(6.987)	(0.552)	(0.582)	(0.0869)	(0.0970)
Observations	30	30	30	30	38	38	39	39
Include size controls?		Yes		Yes		Yes		Yes

Source: Corporate governance reports and own collection

Panel B: Including dummy for Basque Cajas

Explanatory Variable	Real Estate Loans		Loans to individuals		Non performing Loans		Change in Rating (positive=improve)	
	(I)	(II)	(I)	(II)	(I)	(II)	(I)	(II)
% Politicians	-6.473	-8.576	-2.995	-0.0259	2.294*	2.452**	0.0203	0.0317
	(7.655)	(7.679)	(9.420)	(9.338)	(1.142)	(1.170)	(0.176)	(0.182)
Herfindahl Parties	-23.91	-25.94*	13.78	16.92	1.869	2.008	-0.0364	-0.0240
	(14.55)	(14.37)	(18.38)	(17.80)	(2.121)	(2.165)	(0.328)	(0.335)
% top Party	-16.40*	-17.85*	9.234	11.44	1.054	1.133	-0.0257	-0.0179
	(8.835)	(8.704)	(11.28)	(10.92)	(1.339)	(1.366)	(0.202)	(0.207)
Politicians in non political seats	0.208	1.582	-3.292	-5.940	0.698	0.722	0.117	0.127
	(3.090)	(3.152)	(5.475)	(5.472)	(0.520)	(0.560)	(0.0940)	(0.108)
Observations	30	30	30	30	38	38	39	39
Include size controls?		Yes		Yes		Yes		Yes

Source: Corporate governance reports and own collection

A closer inspection of the independent variables shows an important pattern: the three savings banks in the Basque country, BBK, Kutxa and Caja Vital, rank 1st, 2nd, and 4th in terms of the percentage of politically connected board members. The three of them also had a conservative portfolio approach during the crisis. This may be due to a positive effect of political influence, but it could be determined by exogenous factors as well, such as different industrial basis in the Basque region.¹³

For this reason, in panel B of the table we also show tables in which we include a dummy for the three Basque savings banks. In this alternative specification, the effect of political influence has a neutral effect on the portfolio choice of the savings banks but it raises the amount of non performing loans, that is, outside the three Basque savings banks political influence seems to have a negative impact in loan portfolio quality.

¹³In particular BBK ranks 1st in percentage of politicians and last in real estate loans.

We also measure the percentage of politicians in seats that, in principle, are not appointed by political bodies (depositors, employees). This measure indicates that some board members that should, in principle, be independent from the local government may in fact be highly aligned with it.¹⁴ Again, the measure seems to have no impact on portfolio choice or performance.¹⁵

Overall we find some evidence of positive effects of board politization on the portfolio choice of savings banks. Banks with lower politically connected board members, those without a dominant party and those with a high concentration of political parties had less exposure to real estate risks. This effect is largely explained by the three Basque savings banks. In terms of performance, once these three savings banks are excluded, we find negative effects of political influence on non-performing loans.

We have several reasons to think that the effect of boards on performance may not be statistically strong. First, a combination of positive and negative results associated with political influence. Second, poor statistical power of our tests due to the necessarily small cross-section of observations that we need to use once we concentrate on the current crisis. Finally, we could be observing in *Cajas* the phenomenon of “weak boards” that has been observed for firms in general. If boards do not have strong powers to limit the decisions of the executives of the firm, then it is normal that board characteristics of any kind do not affect firm performance. If this was the case, to find alternative channels of political influence we need to either concentrate higher up in the hierarchy of the firm or to use proxies of political influence that come from the firm itself. We therefore concentrate from now on direct lending to political parties; we later study the impact of the political affiliation of the bank chairman.

In terms of direct financial links with political parties, we measure the total amount of loans given to political parties, a ratio of the total amount of loans relative to the total loans+deposits of the savings bank and a herfindahl index of the loans given by political party that measures whether loans are concentrated on one or few parties. Table 3 shows the results of these regressions.

¹⁴Note that this regression only contains 14 observations as many cajas do not have clear "non politically appointed" board seats.

¹⁵However once CCM is included in the sample it has a very strong and negative impact on the proportion of non performing loans.

Table 3: Loans to Political Parties and Performance

	Real Estate Loans		Loans to individuals		Non performing Loans		Change in Rating (positive=improve)	
	(I)	(II)	(I)	(II)	(I)	(II)	(I)	(II)
Total Loans	-0.203 (0.132)	-0.289 (0.239)	0.295* (0.162)	0.330 (0.295)	-0.0102 (0.0241)	-0.0569 (0.0427)	0.00348 (0.00337)	0.00908 (0.00602)
Loans over loans+deposits	0.427 (1.246)	0.275 (1.259)	-0.0605 (1.558)	0.209 (1.545)	0.183 (0.166)	0.197 (0.169)	0.0110 (0.0238)	0.0121 (0.0244)
Herfindahl Loans	-3.476 (5.296)	-4.729 (5.374)	1.556 (6.649)	3.508 (6.654)	0.893 (0.631)	0.927 (0.641)	0.0532 (0.0949)	0.0576 (0.0972)
Observations	30	30	30	30	38	38	39	39
Include size controls?		Yes		Yes		Yes		Yes

Source: Corporate governance reports

While political lending is often exemplified as a potential manifestation of conflicts of interests in the savings banks, the results on these variables do not show a clear pattern in terms of their influence on performance measures. In general the loans to political parties represent a small proportion in terms of the total portfolio of the savings banks and the lending is often quite diversified among political parties, so it may be the case that it is not a good proxy for politization. Furthermore we do not have good measures of directed lending, that is, lending that is politically motivated but is not direct lending to political parties.

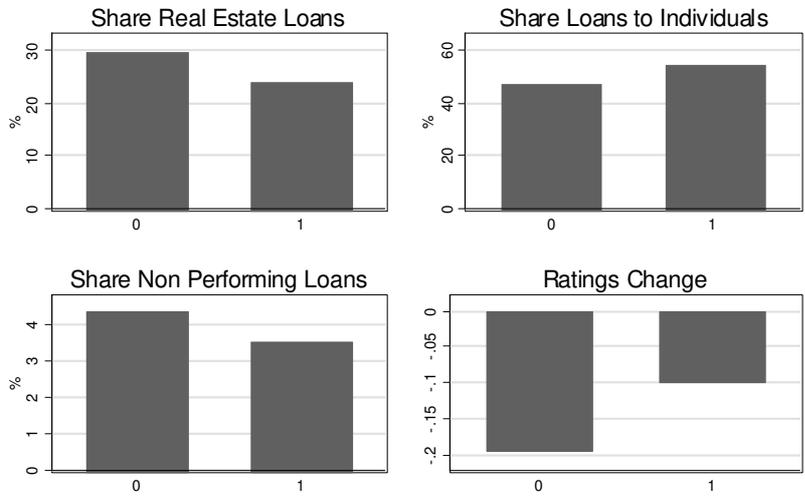
The full picture with respect to the political influence of savings banks shows little clear impact either way of the board composition and possible politization on the loan portfolios and loan performance of different *Cajas*. We move now on to study our next hypothesis: does the human capital of the *Caja* chairman matter?

4 Does it pay to have a knowledgeable chairman?

Previous literature has identified several roles for those at the top of the managerial hierarchy: coordinating among different units (see Hart and Moore 2005); monitoring subordinates (e.g. Qian, 1994) or dealing with the exceptional issues (e.g. Garicano, 2000). Without the right knowledge, Chairmen cannot properly undertake these roles.

This is particularly true in the case of portfolio allocation decisions and loan risk taking. It is a critical determinant of the performance of a financial institution, and thus cannot really be delegated; and it requires some relatively arcane knowledge. For example, such decisions require understanding statistical concepts such as covariance or correlation, finance concepts such as value at risk or 'beta' etc. It is unlikely that those without adequate education or experience can undertake such roles. For example, absent some finance knowledge it is likely the

Fig 3: Impact of Chairman’s Graduate Studies on Loan Book



Source: Own collection from public sources. 0: Not Postgraduate, 1: Postgraduate

Figure 3:

math whizzes from trading divisions can outargue the CEO at any time.

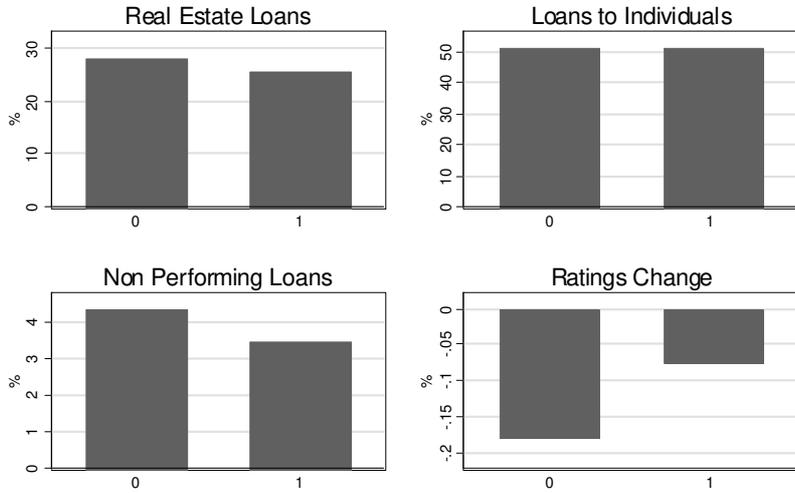
Thus we hypothesize that the absence of post-graduate education at the top as well as of banking experience hampers decision making at the top of the *Caja* and thus is linked to worse loan performance and excessive risk taking.

Only 1/3 of the 45 last chairmen in the sample have some form of postgraduate education, either in the form of studies abroad, master or Ph.D. degrees. On the other hand, half of the chairmen of the *Cajas* have some previous banking experience. These two dimensions of human capital are not correlated- the correlation coefficient is .01.

Figure 3 presents the portfolio choices of those current chairmen with and without postgraduate degrees with respect to the ones without. It shows that the *Cajas* led by chairmen with postgraduate degrees had a 5.6 percent points smaller real estate loan portfolio as a share of total loans than those led by chairman with those loans, more individual loans, 6 points more of loans to individuals. As a result, they had less non performing loans and fewer ratings downgrades.

Figure 4 undertakes the same exercise for banking experience. Although the differences in share of real estate loans have the same sign – those with more ex-

Fig 4: Impact of Chairman’s Banking Experience on Loan Book



Source: Own collection from public sources. 0: No Banking Experience, 1: Banking Experience

Figure 4:

perience allocated less loans to real estate, here the difference is not significant as we’ll see below. On the other hand, there is sharp and clear difference in the fraction of non-performing loans: those banks whose chairmen had previous banking experience had almost 2% less, on our preferred specification, non performing loans. This difference is very large: given that the average *Caja* had 4.93% of non-performing loans, having a president with banking experience reduces by 40% the amount of non-performing loans.

The results in Figures 3 and 4 apply to the last chairman of each of the *Cajas*. However banking portfolios build up over several years and some of these CEO’s may have inherited loan portfolios that were the result of previous policies that are hard to undo. Moreover some *Cajas* have recently replaced their chairmen. The replacement chairman and the event of a succession itself are likely to be correlated with performance. For this reason we track the different chairmen in charge of each *Caja* from 2001 and construct the equivalent human capital and political background variables for a *synthetic* chairman that is an average of the chairmen over the past 9 years weighted by the number of years that each chairman was in charge. We then run regressions of the different performance

variables on the characteristics of these *synthetic* chairmen. These regressions allow us to see the joint impact of the variables and to control for size. This is important as our results could reflect simply a size bias- that is, larger *Cajas* could have better loan portfolios and larger *Cajas* could have managers with more education and experience, making the correlation spurious.

Table 4a presents this analysis. There are 5 specifications for each variable, so that each panel presents five regressions on each of our dependent variables, real estate and individual loans, non performing loans and rating increase. The first column in each panel shows the joint effect of all variables and the columns (II) to (IV) present each of the variables as a separate regressor.

Table 4a: Chairman's human capital and political background and performance

Expl Variable	Loans Real Estate				Loans to Individuals			
	(I)	(II)	(III)	(IV)	(I)	(II)	(III)	(IV)
Graduate Studies	-5.897** (2.557)	-7.174** (2.774)			7.075* (3.632)	7.249* (3.537)		
Public Office	-2.586 (2.523)		-4.833 (2.898)		-1.449 (3.583)		0.892 (3.731)	
Banking Experience	-6.462** (2.443)			-7.375** (2.662)	5.142 (3.469)			5.628 (3.541)
Turnover (billion)	-15.3 (16.3)	-26.7 (17.7)	-14.4 (18.8)	-10.7 (17.4)	35.7 (23.2)	40.4* (22.5)	31.9 (24.1)	26.3 (23.2)
Intercept	34.69*** (2.050)	31.76*** (1.867)	31.15*** (2.135)	31.07*** (1.654)	43.71*** (2.911)	44.58*** (2.380)	47.28*** (2.749)	45.88*** (2.200)
Observations	30	30	30	30	30	30	30	30
R-squared	0.428	0.227	0.125	0.249	0.258	0.191	0.067	0.145

Expl Variable	Non Performing Loans				Change in Rating (positive=increase)			
	(I)	(II)	(III)	(IV)	(I)	(II)	(III)	(IV)
Graduate Studies	-0.963** (0.461)	-0.773 (0.496)			0.00689 (0.0693)	0.0209 (0.0732)		
Public Office	0.820* (0.444)		0.452 (0.485)		0.0486 (0.0663)		0.0713 (0.0685)	
Banking Experience	-1.242*** (0.450)			-1.164** (0.474)	0.167** (0.0687)			0.174** (0.0667)
Turnover (billion)	2.04 (3.09)	0.80 (3.34)	1.25 (3.39)	3.27 (3.24)	-0.16 (0.479)	0.127 (0.498)	0.050 (0.489)	-0.146 (0.462)
Intercept	4.294*** (0.367)	4.290*** (0.322)	3.714*** (0.368)	4.321*** (0.276)	-0.241*** (0.0561)	-0.171*** (0.0474)	-0.200*** (0.0512)	-0.214*** (0.0388)
Observations	37	37	37	37	38	38	38	38
R-squared	0.293	0.072	0.030	0.155	0.179	0.004	0.031	0.165

Note: Standard errors in parentheses Source: Own collection from public information.

Graduate studies are most significant and important. Those with graduate studies (a masters, a doctorate, or studies abroad) extended 7% more of their portfolio as loans to individuals, and around 6-7% less to real estate. Consistently with this, as of July 2009, they had significantly lower impaired loans, around 1% less; and were less likely (although this is not always statistically significant) to experience a downgrade.

The role of banking experience is also significant, but less straightforward: banking experience reduces current non performing loans ratios by an additional 1%. This also partly reflects an increase in the portfolio allocation to real estate

all regressions show a consistent drop of around 6-7% in this allocation. This gets reflected on a lower chance of the debt of the *Caja* being downgraded that is also statistically significant.

A common view on the chairmen of Spanish *Cajas* is that it is often a job for retiring politicians. The next set of regressions studies the extent to which being a previous appointee to public office affects the performance of the *Caja*. Of course, having political experience and connections could be a plus, in that it can provide the *Caja* with access to information and projects that it would not have otherwise. Thus it is an empirical question whether the Chairman's political connections and experience harm or hurt the *Caja*.

The point estimates of the regressions on Table 4a, columns (III) show that it does indeed have a negative impact although the effect is not significant when used as a stand alone variable. When including all variables together, having held previously elected political office is correlated with an increase in non performing loans of the *Caja* of approximately 1%.

These effects are additional to one another: since they are uncorrelated, putting them together in the regression hardly reduces their size. This can be seen on column (I) of each panel which is our preferred specification. Thus we can conclude that compared to one who has graduate education and relevant experience, a chairman without both increases current non performing loans by 2.1 percent points; since non-performing loans average around 4%, this is roughly a 50% increase in non performing loans, and larger than one standard deviation of this variable. Moreover, using the estimates in column (I) we can see that having a chairman without experience and graduate education who has previously held public office increases these effect to 3%, around two standard deviations, in non performing loans. Although causality is hard to establish in this setting, this suggests that non performing loans of an average *Caja* would increase from 4% to 7% in this case.¹⁶

Note that the differences in observable skills of the different chairmen of the *Cajas* need not be large to lead to large economic losses. Given the nature of the financial sector with large and highly levered institutions, small differences in

¹⁶A potential concern is that the nature of the analysis involves the use of a small sample of observations. Even though these observations constitute the population of all the *Cajas* in Spain (excluding the smaller rural *Cajas*) it could be the case that the results are driven by few observations. To address this concern, in Table 4b in the Appendix, we perform median regressions along the lines of Table 4. We find that graduate studies and previous banking experience are both strongly correlated with lower loans to real estate, higher loans to individuals, higher non performing loans and lower chances of a downgrade. The results on the public office variable are however more ambiguous, although are key result with respect to this variable still holds, that is we still find a large (increasing non performing loans by 1 full point or 25% of the average), positive and significant effect of public office on share of non performing loans.

the rates of return achieved by different chairmen lead to large economic losses when translated into monetary terms.¹⁷ Even though those chairmen that in our sample appear as less able to run the *Cajas* may in fact be very skilled individuals, the difference in skill with respect to those that seem to be optimal is correlated with large differences in performance. As a back of the envelope calculation, we can make the inference of what would have happened if each and every *Caja* in our sample had been run by the optimal chairman (ie. an experienced, formed and non politically connected one), under the assumption that we can interpret causally the coefficients. This exercise yields that the total amount of impaired loans of the whole system would have gone down by 16 billion euro. Assuming a common conventional recovery rate for impaired loans of 35% this would translate into losses of 10 billion euro. This inference has to be taken with some care, as chairmen may differ in unobservables that are correlated with size and performance but gives an impression of the size of the effects at work. It also talks to the controversy about incentive pay and large bonuses in the financial sector. While paying large bonuses to non performing executives is obviously a poor policy, setting a high pay seems like a good one whenever it is a necessary condition to attract high skill individuals.

Another important concern is that all the effects may be due to bad luck. If a given type of *Caja* was concentrating on real estate loans which were profitable for a while but proved a bad gamble ex-post. For this reason we regress in Table 4b the same set of variables against a the Return on Assets of the *Caja* in 2006.¹⁸

¹⁷See Gabaix and Landier (2007) for a more general and formal argument on the influence of size on the returns to skill of the CEOs of large corporations.

¹⁸The return on assets excludes in the calculation of returns those that are atypical and do not belong to the regular banking business (e.g. the revaluation of non financial assets).

Table 4b: Chairman's human capital and political background and past performance

	ROA (smoothed)			
	(I)	(II)	(III)	(IV)
Graduate Studies	0.206** (0.0987)	0.240** (0.103)		
Public Office	0.162* (0.0938)		0.199* (0.0990)	
Banking Experience	0.167 (0.102)			0.195* (0.109)
Turnover (billion)	-0.48 -0.722	-0.07 -0.731	-0.33 -0.741	-0.59 -0.772
Intercept	0.677*** (0.0805)	0.799*** (0.0637)	0.776*** (0.0766)	0.841*** (0.0585)
Observations	43	43	43	43
R-squared	0.243	0.122	0.094	0.076

Note: Standard errors in parentheses

The results with respect to graduate studies and banking experience are in line with the performance of the *Cajas* during the crisis. Experienced and more educated chairmen performed better *both* before the crisis and during the crisis. This is an important piece of information; the poor results during the crisis do not seem to be the result of some *Cajas* taking more risk by taking advantage of the very profitable real estate market and then being hurt by an unforeseeable crisis. If that was the case, those *Cajas* that perform worse during the crisis would also be those that perform better during the housing bubble as it would correspond to a "bad gamble" hypothesis. The results not only do not show such relationship but instead show that experienced and better trained chairmen performed better both before and after the crisis.

The results with respect to previous political appointments are however different in this sense. In normal times it seems that those *Cajas* with a chairman that had a previous political position perform better. In this particular dimension the hypothesis that those *Cajas* with a politically connected chairman took risks in good times that turned out costly after the crisis seems to be supported by the data. However in Table 4a the exposure to real estate loans does not seem to be higher for politically connected chairmen so it is not clear that real estate was the dimension of such gamble. We leave for future research the exploration of this result.

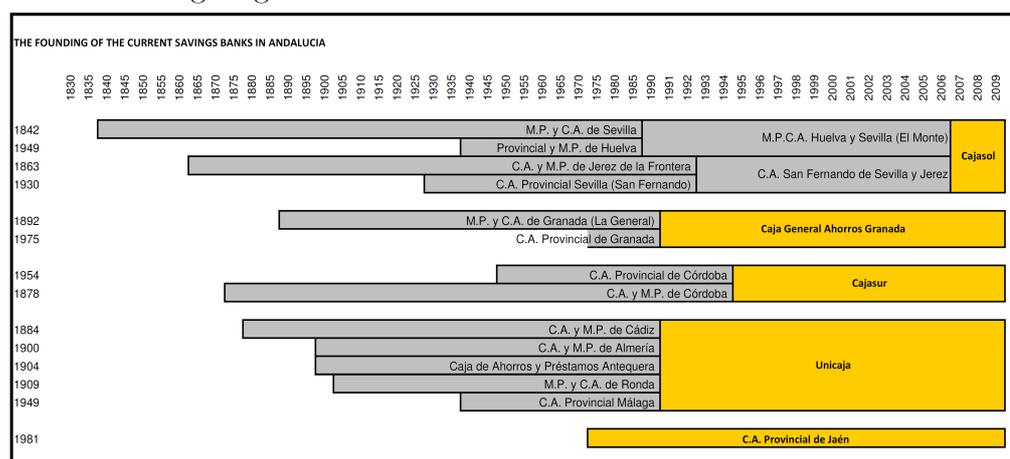
Although making causal statements is difficult, and even though we could

not obtain data on these sensitive issues for many *Cajas*, our results are strongly suggestive: we believe that using the *Cajas* as a political sinecure has proven extremely costly to the Spanish financial system.

5 Andalucía: A tale of four *Cajas*

In this section we illustrate some of the issues exposed in the previous sections using as a case study the evolution of the savings banks in Andalucía. The current four *Cajas* are the result of a consolidation and expansion process over the last 50 years. Despite the relatively level playing field for all the institutions, their performance is quite heterogeneous. In order to add some texture to our study, we study how this differential performance relates to the two main elements of our study, corporate governance and human capital differences.

There are currently four main savings banks in Andalucía: Cajasol, Caja de Granada, CajaSur and Unicaja, with a fifth smaller bank Caja de Jaen. All of them resulted from different consolidation processes of smaller banks according to the following diagram.



In terms of total deposits, in 1940 the sum of the parts of Cajasol was clearly the dominant player but during the 40s and 50s, and till today *Unicaja* became the dominant savings bank in Andalucía. The picture with respect to the total amount of credit given is slightly different: the relative share of loans exhibits much more volatility, as loans are more sensitive to economic fluctuations than deposits. Both Cajasol and CajaSur became more loan oriented towards the year 2000.

5.1 Performance

Table 5 shows the evolution of the relative size of deposits, loans and the accounting value of equity with respect to the total of Andalucía during the period 2000-2006. This is a period of great expansion of the financial sector as a whole and the savings banks in Andalucía are no exception. Table 5 Panel A presents this data in relative terms in order to assess the different business strategies used.

Table 5: Recent Evolution Andalucian Cajas

Panel A: Loan and Deposit Shares

	Deposits 2000	Deposits 2006	Loans 2000	Loans 2006	Equity 2000	Equity 2006
Unicaja	34.80%	31.64%	30.05%	32.48%	36.96%	43.09%
Caja Sol	29.44%	31.76%	32.93%	31.84%	29.04%	26.79%
Caja Sur	19.89%	19.63%	20.43%	19.38%	19.71%	15.34%
Caja Granada	15.06%	15.82%	15.77%	15.24%	12.84%	13.64%

Source: Anuario Estadístico de las Cajas de Ahorros, de 2006

Panel B: Loan Composition and Performance

	% Real Estate (06)	% Loans to individuals (06)	% Non Performing (09)	Current Rating	Rating drop
Unicaja	24%	50%	2.9%	AA3	No
Caja Sol	32%	53%	4.5%	A-	No
Caja Sur	28%	40%	7.8%	BB+	0.23
Caja Granada	28%	55%	-	BBB+	1.59

Source: Fitch Ratings Agency; 09 S1 Report at CMNV.

Unicaja stands out as the most conservative savings bank of all four during this period, its relative share of deposits falls by 3.2% and its relative size in terms of loans increases by roughly 2%, however, simultaneously, Unicaja has reinforced its solvency levels representing over 40% of the relative size in terms of own equity. Cajasol moderated its previous expansion during the 90s and shows a relatively healthy picture, with a moderate reduction in equity. CajaSur, on the contrary shows signs of poor performance with its loans to equity ratio increasing from 103% to 126% and becoming the largest of all four savings banks. Caja Granada shows a very stable picture although its relative level of own equity is also quite low throughout the whole period.

The picture during the current crisis reinforces the trends seen over the last decade. Panel B on Table 5 shows our main variables of interest for the four main savings banks in Andalucía. The two good performers are Unicaja and Cajasol. Unicaja has been the Caja that has suffered least from the crisis. The share of loans that are related to real estate is the lowest in the region and it also shows healthy figures in terms of non performing loans. Not surprisingly, it has the

highest long term credit rating of all four, which has remained stable during the whole period. Cajasol on the other hand has expanded aggressively during the last two decades and as a result a higher share of its loans belongs to real estate. It also has relatively high levels of non performing loans. However the long-term rating is still good and it has not suffered a drop during the period that we study.

While Unicaja and Cajasol show different paths within a good solvency situation, CajaSur , on the contrary, shows signs of being under a lot of stress during the current crisis. It has a high share of real estate loans, and its loans are performing much worse than the ones of its counterparts. Not surprisingly its rating has been downgraded and it is currently just above investment grade. Finally Caja Granada shows a mixed profile, it has been a more conservative institution than CajaSur with less growth throughout the last 10 years but suffering more in terms of its rating.

While a small sample of four savings banks cannot be used to make any statistical inference, the case of the savings banks in Andalucía is interesting insofar the size of the four main banks is very similar and they operate under similar institutional and business circumstances. However their performance has been widely different. Overall, Unicaja has been solid and it continues to be the leader of the sector in Andalucía. Cajasol has embarked in an aggressive growth path that has not created so far substantial solvency problems. Caja Granada and CajaSur show a much grimmer picture, particularly in the case of CajaSur where solvency problems are quite acute. It is important to understand to what extent formal corporate governance, political influence and human capital issues can be partly responsible for the differences in performance.

5.2 Why this divergence in performance?

Table 6: Understanding Recent Evolution: Potential Explanations

Panel A: Politics, Board

	PSOE/UGT	PP	Other Political
Unicaja	45%	5%	15%
Caja Sol	52.5%	10%	7.5%
Caja Sur	30%	10%	5%
Caja Granada	25%	20%	5%

Panel B: Human Capital and Political Affiliation CEO

	Political Party CEO	Education	Related Experience	Turnover
Unicaja	PSOE	Since 91 PhD in Economics	Yes	1 since 91
Caja Sol	PSOE	Economist, PhD and MBA studies	Yes	1 since founding (06) previous multiple
Caja Sur	Catholic	Last 3, Catholic priests; theologian	No	3 since 97
Caja Granada		Last 3, no training in business and economics	N	4 since 94

Panel C: Compensation at Andalusian Cajas

	Total pay	Per board member	Per billion Business	Front vs. Back
Unicaja	4.6m	231k	94.5k	1.42
Caja Sol	1.7m	45k	39.7k	0.97
Caja Sur	1.8m	90k	65.3k	0.86
Caja Granada	1.1m	55k	49.6	1.33

Formal and Real Governance. In terms of formal governance all four savings banks are quite similar, Unicaja and Caja Granada are the ones with a lower number of board seats formally appointed by political institutions (35%) and a very dispersed representation on the rest of the seats Cajasol has a higher percentage of politically appointed board members 45% and CajaSur . All in all it seems that institutionally the four institutions are not substantially different to each other or to the rest of the savings banks in Spain. Similarly to our results with respect to all the Spanish savings banks there does not seem to be a clear pattern with respect to performance and the composition of the board, both formally and effectively. However the pattern is more consistent when we

concentrate on the political affiliation of the president of the savings banks.

Human Capital. In terms of human capital the only savings bank that has been consistently run by someone with knowledge of finance or economics is Unicaja. Run by since 1991 Braulio Medel who has experience as an entrepreneur and Ph.D. in Economics and some past academic activities. Cajasol is also run since the merger that constituted it as such in 2006 by an economist Antonio Pulido, former academic with a Ph.D. and MBA studies. Other than these two presidents, the recent and current presidents of the different savings banks do not have specific economic training, although most of them had professional experience in other areas such as law, medicine or engineering. The last 3 presidents of CajaSur were all catholic priests formed as theologians. None of the last 3 presidents of Caja Granada had any specific formation in economics or business administration.

As for the political connections variables that our analysis above found relevant, a substantial proportion of all the presidents of Cajasol and Caja Granada during the past two decades are linked to the regional government either through direct membership to the same party (PSOE) or by having occupied publicly appointed positions in the past. The presidents of CajaSur have, on the contrary been normally linked to the catholic church which is itself linked to the founding body of CajaSur . Finally Unicaja has had a single president for the last 18 years who is not formally linked to any political party; however he had a political position linked to PSOE as deputy minister of economics and treasury.¹⁹

Compensation and Turnover: The turnover of chairmen and presidents has also been analyzed as a source of inefficiencies. While too little turnover may be an indication of entrenchment, excess turnover of presidents can also show of lack of continuity and poor governance. In this sense, CajaSur has had 3 different presidents since 1997, Caja Granada 4 different presidents since it was founded in 1992. Cajasol has had a single president since it was founded in 2006, although the different savings banks that composed it often exhibited a high turnover of presidents. Finally Unicaja stands out again in this dimension, with a single president since 1971. While it is not possible to extract strong conclusions from such a small sample it seems that stability at the top of the institution may be either one of the driving factors of success or a manifestation of lack of problems.

It'd be of interest to now the level of human capital below the top level in the *Cajas*. Although we cannot access data on the full hierarchies of the different savings banks, we can get a sense of the importance given to human capital by studying how much pay is devoted to top employees. It is easy to see that again Unicaja is the savings bank that devotes more resources to paying its top

¹⁹More precisely he was "Viceconsejero de Economía y Hacienda" between 1984 and 1997.

executives both in absolute terms, in per capita terms and relative to its own resources. It also pays relatively more to the executive board members that deal with strategic issues (Consejo) relative to those that deal with pure governance issues (Comisión de Control). This may give Unicaja an advantage in terms of attracted external professional and talented individuals.

Conclusion. Overall, even though a case study like this cannot be interpreted as conclusive statistical evidence, the big picture of the savings banks in Andalucía gives a pretty consistent image that seems to support the evidence of the rest of the study. Despite the fact that in terms of business conditions all four savings banks have similar common grounds, there is substantial heterogeneity in performance, both historically but more importantly during the recent crisis. Unicaja stands out as the leading institution and Caja Sol seems to be on a stable path after completing a relatively successful expansion. On the other end, Caja Granada seems to underperform with respect to its peers and CajaSur seems to be experiencing moderate to large solvency problems. With respect to the variables that explain these performance differences, the formal and effective composition of the board seems to be uncorrelated with performance, however the level of political independence and human capital of the presidents of each institution is again positively correlated with performance: the ability and willingness to attract and place skilled workers at the top of a *Caja* is a crucial determinant of its lending performance.

6 Conclusions and Discussion

The main result of our analysis concerns the cost of the lack of human capital of those running a *Caja*. We find (see Table 4) that in total the lack of human capital of those running the *Cajas* adds around 3 points to their non performing loan ration: having been an elected politician adds .82 points, not having postgraduate education .96 and having no previous experience 1.24. Since the average non performing loan in our sample is 4.05% (standard deviation of 1.24%) and the average *Caja* loan book is 19800m euro, under the assumption that this is a causal relationship, we can calculate the monetary cost of this lack of human capital for an average *Caja*. Specifically, it would suffer on average 1399m euro in non performing loans, rather than 801.9m euro average, that is the lack of human capital would add 598m euro of non performing loans. Assuming a recovery rate of .35, this extra bad loans would add 389m euros to the 641m in expected losses. Assuming the obra social gets a payout of 20%, this is an additional of 77m euro loss to the obra social and an additional 311m solvency loss. These results are robust and do not seem to be driven by few *Cajas*. Moreover those presidents of *Cajas* that performed worse during this crisis were also the ones

that were performing worse right before it. The implication is obvious: the cost of appointing the wrong chairman costs the taxpayer and society more than the cost of hiring the right one and still paying a hefty salary to the wrong one.

Of course, this calculation has to be qualified, since we could not run anything close to an experiment comparing similar *Cajas* with different human capital endowments. Probably, other variables are related to choosing underqualified chairmen. In of this caveat, we believe that the result is useful, as it focuses researchers on the key, uncontroversial in our view, fact that must be explained: in the run-up to the crisis and during the crisis, *Cajas* that had less qualified chairmen had worse performance.

Our interpretation is as follows. Running a bank is a hard business. It requires expertise. It is unlikely that those whose previous lives have involved no contact with economics or finance, either in their studies or in their previous professional lives can understand the issues involved in lending policies, loan provisions and, risk diversification among other key issues. The problem with the *Cajas* is thus not politization, as most have argued in recent debates. Empirically this just does not pan out: the worst offenders in this respect are the three Basque *Cajas*, whose boards are entirely controlled by political parties, and show in fact exemplary performance. But professionalization does clearly suggest itself as the key lesson for the performance heterogeneity among *Cajas*. Having postgraduate education, previous banking experience and no previous political appointments makes a material difference in our analysis to several important aspects of the performance of the *Cajas*.

Thus our study informs the current debate on the possible reforms of the regulatory framework of the *Cajas*. In our view, our results suggest that two key functions must be differentiated: running a *Caja* requires economic and financial skills and knowledge; disbursing the benefits of the activity through the foundation requires political control and intervention of the citizens. These two functions call for two separate executive functions which should be differentiated by law: the chairman of the *Caja* itself should be someone with advanced knowledge of banking and finance; the chairman of the foundation (the *Obra Social*) should be a representative of society who does not need to have advanced expertise in the banking business.

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A Appendix: Robustness: Median Regression of Chairman Human Capital

Table A1: Chairman's human capital and political background and performance (median regressions)

Expl Variable	Loans Real Estate				Loans to Individuals			
	(I)	(II)	(III)	(IV)	(I)	(II)	(III)	(IV)
Graduate Studies	-2.346 (2.667)	-7.130** (3.419)			7.893 (10.47)	4.940 (7.649)		
Public Office	-4.502* (2.624)		-2.791 (2.999)		2.007 (10.32)		4.677 (4.806)	
Banking Experience	-3.891 (2.589)			-6.496** (2.928)	5.586 (9.812)			2.214 (6.663)
Turnover (billion)	-16.1 (11.8)	-28.7** (13.6)	-25.3* (12.4)	-9.41 (13.1)	36.3 (42.7)	36.8 (31)	40.5** (15.1)	35.5 (29.8)
Intercept	34.09*** (2.068)	32.53*** (2.225)	31.35*** (2.171)	30.60*** (1.792)	38.72*** (7.966)	46.41*** (4.982)	43.30*** (3.395)	46.05*** (4.066)
Observations	30	30	30	30	30	30	30	30

Expl Variable	Non Performing Loans				Change in Rating (positive=increase)			
	(I)	(II)	(III)	(IV)	(I)	(II)	(III)	(IV)
Graduate Studies	-0.806 (0.509)	-1.581** (0.745)			-9.10e-10 (0.0891)	0.208** (0.0886)		
Public Office	1.041** (0.489)		1.442* (0.793)		-6.84e-10 (0.0856)		0.210* (0.123)	
Banking Experience	-1.619*** (0.476)			-1.230** (0.492)	0.230*** (0.0762)			0.230*** (0.0584)
Turnover (billion)	1.21 (0.329)	-2.47 (0.327)	-2.46 (0.357)	0.282 (0.233)	-4.21 (0.674e9)	-3.3 (0.697 e9)	-0.215 (0.914)	-3.67 (0.522 e9)
Intercept	4.270*** (0.432)	4.652*** (0.478)	3.168*** (0.597)	4.516*** (0.280)	-0.230*** (0.0744)	-0.208*** (0.0650)	-0.207** (0.0926)	-0.230*** (0.0450)
Observations	37	37	37	37	38	38	38	38

Note: Standard errors in parentheses Source: Own collection from public information.