BANKS AS A FIRM`S BLOCKHOLDERS.
A STUDY FOR SPAIN

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Abstract

This paper analyzes how a firm's returns and the stake of the controlling blockholders are affected when a bank becomes a blockholder with one of the largest stakes. Compared to previous studies, we approach this issue by taking into consideration the type of blockholders building up coalitions with banks in order to control a firm. This allows us to reconcile different results, reported in relevant literature, on the impact of banks' ownership of a firm on its returns. In short, we argue that this latter effect is negative only when a bank buys the largest stake or when it forms coalitions with other banks to control a firm. However, this does not apply when a bank buys the second largest stake of a firm with a non-bank as the largest blockholder. We prove empirically our theoretical contentions making use of a sample of Spanish firms for the period 1996-2000.

Keywords: *Corporate governance, main blockholders, financial institutions.*

JEL classification: G21, G32.

1. Introduction

Recently, the literature on ownership structure has broadened its main focus by considering not only agency problems between managers and shareholders[1], but also those conflicts that emerge between large shareholders and minority shareholders (Gomes and Novaes, 2001; Bloch and Hege, 2001; Zwiebel, 1995; Pagano and Röel, 1998). Large shareholders want to gain control in order to enforce decisions that give them some separate rents (*private benefits of control)* at the expense of minority shareholders. To model this feature, the literature on this subject departs from a vision of ownership concentration, which comprises one major blockholder and a diverse group of small shareholders (Shleifer and Vishny, 1986; Demsetz and Lehn, 1985 and Berglöf, 1990) to another vision that incorporates different large blockholders in a firm's ownership structure. This latter approach allows to address strategic issues such as the formation of coalitions between the main blockholders and their effects on a firm's policy (Bloch and Hege, 2001; Gomes and Novaes, 2001; Bennedsen and Wolfenzon, 2000; and Morck, 2000). Our paper borrows from this literature and studies the effect on a firm's returns when a bank becomes one of the largest shareholders. Our basic claim is that this effect is very much related to the characteristics of the blockholders that banks can form coalitions with in order to achieve the effective control of a firm.

From an empirical point of view, the study of the effects of banks' stakeholdings on a firm's returns has in Continental Europe a natural framework of experiment in comparison with the US, where stockholder banks are much less common because banks have some restrictions on holding stakes. Our study focus on Spain as an example of a bank-oriented financial system, where traditionally banks have had a significant presence in a firm's ownership. In fact, in Spain there has recently been some debate about the advantages and disadvantages of having '*núcleos duros*'', which means groups of stable blockholders – mainly banks- that control different firms.

The literature has not yet reached a consensus on the effect of institutional ownership (mainly banks) on a firm's returns. There are some papers that find a negative effect (Giner and Salas, 1997; Goergen *et al.*, 2003; Hellwig, 1998; Morck, *et al.*, 2000), while others describe a positive relationship, (Boehmer 2000; Cable, 1985; Gorton and Schmid, 2000; Kaplan and Minton 1994). Finally, there is a strand of the literature that does not find a clear-cut relationship (Prowse, 1992; Zoido, 1998[2]). Hence, the debate is open and there is no conclusive evidence as to what the real effect could be.

This paper contributes to this debate by focusing on the type of the largest blockholders (individual, corporations, families, banks). The aim is to find out whether the type of coalitions that banks may form with other specific blockholders has an effect on a firm's profitability. Our conjecture is that once a bank

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[1] Since the original paper of Berle and Means (1932) there has been a huge number of papers that have studied different types of ownership structure and their impact on a firm's performance.

[2] Zoido (1998) finds no relationship using accounting measures, while a positive relationship was found using market data.

becomes one of the largest blockholders but needs to form coalitions with other blockholders to control a firm, it has more expropriating incentives if the accompanying blockholders are other banks (homogeneous structures) than other type of blockholders (heterogeneous structures). Several reasons lead us to expect this. Firstly, there is a natural convergence of interests among banks over the definition of policies in order to enjoy greater private benefits of control. Moreover, banks can easily reach a consensus because they can choose from a wide range of possible actions that bring these private benefits. These include the ability to oblige a firm to buy several services (insurance, payments management, ...) at prices at above market prices or to lend to these participated firms charging interests superior than market rates. Secondly, in countries with a bank-oriented financial system like Spain, there is an interlocking of banks' stakes among different firms that favors their tacit collusion to control the credit channel and expropriate the minority in the participated firms. Finally, banks colluding among themselves may also control a firm although they do not hold the majority stake. This can happen because they may act as representatives of other minority shareholders (delegation: Salas, 2002). This may be the case for those shareholders that are also banks' depositors. This allows banks to bear low costs (proportional to the banks' stake) as a consequence of their expropriating activities.

By the same token, a *bargaining effect* emerges when the other blockholders that collude with banks to control a firm are more heterogeneous. This accounts for the difficulty in reaching agreements among different main blockholders that require a firm to follow specific and, on some occasions, opposing policies in order to enjoy particular private benefits of control. When these policies are mutually exclusive, they turn out to be an implicit protection for the minority. Obviously, the types of *blockholders* (financial institutions, corporations, families, individuals, …), whether more or less homogeneous, are going to determine to a large extent this *bargaining effect*. Interestingly, Maury and Pajuste (2004) find that the incentives to collude with the largest shareholder are significantly influenced by the type of blockholder. When they are homogeneous (*e. g.* two families), the effect on a firm's value is more negative than when they are heterogeneous (*e.g.* a family with another type of blockholder). Also, Yeo *et al.* (2002) find a strong positive relationship between external unrelated blockholdings and transparency of earnings reporting, which is an indication of blockholders low expropriating intentions. In that case, banks in heterogeneous structures may not erode a firm's returns. In this way we can reconcile the dispersion of the results found in the literature by contemplating the characteristics of the blockholders forming coalitions with banks, not only the banks' stakeholding.

To test our theoretical contentions, we carry out an empirical investigation on a sample of Spanish firms for the period 1996-2000. Making use of accounting data as well as market data, we find that the results confirm in essence our main conjecture: once a bank acquires the condition of main blockholder it has a negative impact on a firm's return, particularly if it colludes with other banks. However, this is not

true when a bank becomes the second largest blockholder of a firm that has another type of blockholder as the one with the largest stake. Also, our results seem to suggest that banks lending to their participated firms –lending banks- expropriate mainly through the credit channel while non-lending banks use other non-financing channels (the provision of services at prices higher than market rates). Finally, we find that those controlling coalitions formed by banks have lower stakes. This is a clear signal that this kind of coalition aims to expropriate. Banks coalitions minimize their expropriating costs by reducing their controlling stake. However, this is no longer true when a bank is the second largest shareholder.

The remainder of the paper is organized as follows. Section 2 develops the theoretical underpinnings as well as the hypotheses to be tested. In Section 3, some descriptive analysis is shown. Section 4 displays the econometric study. In Section 5, an analysis of robustness is carried out making use of market data. The paper ends with some final remarks.

2. Theoretical underpinnings

Different characteristics make a bank intrinsically different from other types of blockholders: a) its potential double role as lender and owner (Kroszner and Strahan, 2001a, b), which makes it a particularly powerful shareholder; b) a bank may have a borrowing or a lending relationship with other blockholders of the firm in which it holds stakes. This favors the interlocking with these blockholders and increases its bargaining power with respect to the remaining shareholders; c) a bank has a larger degree of homogeneity with other banks than with other types of blockholders and; d) it can offer a wide range of products to its controlled firms. These characteristics strongly determine a bank's stake as well as its effect on a firm's returns. We argue that this effect is contingent on the type of blockholders that a bank may form a coalition with in order to control a firm. In particular, once a bank becomes a firm's largest blockholder, it tries to expropriate minority shareholders, especially when it shares its power with other banks for controlling a firm. However, this is not true when a bank is not the largest blockholder of a firm that has another type of blockholder with the largest stake. The following arguments help us to justify this conjecture.

First, the stake: the lower the blockholders' controlling stakes, the more likely it is that blockholders will undertake minority expropriating policies. This is because they internalize a low proportion of the expropriating costs when they have such a low stake. Interestingly, banks, by nature, may control a firm even holding a low stake (even lower than 50%) especially if they collude with other banks, because they have more power than that derived from their stakes. There are different reasons why this power is so high. One of them is related to the fact that the banks may hold the representation of some minority shareholders who have close links with them through their voting rights (Berglöf, 1990; Rajan and Zingales, 2003). A second reason is that banks use stock pyramids to concentrate their voting power (Gorton and Winton, 2003). Finally, another reason is that when blockholder banks collude, they may control the credit channel

of the firms they own. Undoubtedly, this increases their power as they may refuse to renew loans when firms need them (Gorton and Winton, 2003) and it provides them with more muscle to influence a firm's decisions in the direction of their own interests (*e.g.* forcing a firm to borrow money from banks at rates higher than the market ones).[3] Berlin *et al.* (1996) show the relevance of the stake dimension by proving that banks' stake in the borrowing firms may be harmful for other stakeholders when the stake is not too large,. Hence, it is not surprising the lower amount of dividends paid by those firms with banks in their ownership (Goergen *et al.* 2003).

The second argument that justifies banks' expropriating eagerness is that they are quite homogeneous institutions with common interests in the course of action to achieve private benefits.[4] Moreover, they can also overcome potential disagreements among them on how to expropriate minority shareholders, because they have access to a wide range of perquisites to choose from in order to expropriate the minority. Banks can use the credit channel to charge interests above market rates, manage a firm's payments or provide services like insurance or consultancy at a premium above the market price.

Finally, banks generally have cross-shareholdings stakes among different firms as these quite homogeneous institutions generally invest in the same sectors and in firms with similar characteristics (not too risky and not too small). Moreover, the Spanish banking system is characterized with quite a few banks having an active role in buying firms' stakes. Undoubtedly, this favors collusion agreements among them to expropriate their mutually controlled firms.

Alternatively, when a bank forms a controlling coalition with a non-bank, the process of decision-making is influenced by the aforementioned *bargaining effect*. These are the possible difficulties that a set of blockholders may face when agreeing on expropriating the minority. This feature protects the minority from the expropriating actions of the main blockholders (Gomes and Novaes, 2001). Moreover, we expect this bargaining effect to be greater when the bank is not the largest shareholder. In that case, banks have to take into consideration the potentially different private interests of the largest (non-bank) blockholders.

The combination of the previous features leads us to propose that when *a bank becomes one of the largest blockholders of a firm with other banks as controlling blockholders, there are high incentives for expropriating minority shareholders. However, this may not be true when the largest blockholder is not a bank*. Along this line, Hellwig (1998) shows that banks are more eager to collude with executive members against non-executive members of the board. The latter are, in principle, more eager to protect minority blockholders.

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[3] However, as we argue below, there is also another effect that moves in the other direction. When banks hold stakes in their borrowing firm, they may have less incentive to expropriate as this may damage their interests as lenders in comparison to non-lending banks.

[4] Also, among banks that participate in a firm's ownership they are quite homogeneous in terms of size and risk aversion.

This kind of bank expropriating behavior should be reflected in the stake of the controlling blockholders as well as in a firm's returns. In the rest of the section we articulate the arguments to deduce the hypotheses to be tested.[5]

Stake Dimension: A consequence of a bank expropriating intentions is that it will try to become a controlling blockholder by buying the smallest stake possible (close to 50%). This is in order to minimize the expropriating costs necessary to fully enjoy private benefits. The stake of the controlling coalition, furthermore, is expected to be particularly small in those cases where we expect a greater eagerness for expropriating: when blockholders are homogeneous (two banks) rather than heterogeneous (a non-bank as the largest blockholder with a bank as the second largest one). Hence, we can state the following hypothesis:

Hypothesis 1: When a bank acquires one of the largest stakes of a firm with other banks as significant blockholders, there is a reduction in the stake of the controlling coalition. However, this reduction does not exist when the blockholder with the largest stake is not a bank.

We can extract a natural consequence from Hypothesis 1: The presence of a bank as a significant blockholder can lure other banks to acquire the largest stake in this firm. Hence, *we expect that the probability to find a bank with a large stake in a firm is higher when there is another bank with a significant stake.*

Return Dimension: A second dimension that is worth exploring to test banks' ownership expropriating behavior is their effect on a firm's returns. There is no consensus on this issue. Several studies, such as Cable, (1985), Gorton and Schmid (2000) for Germany; and Hoshi *et al.* (1990, 1991) for Japan, show the existence of a positive relationship. Other works [Zoido (1998) for Spain, Edwards and Nibler (2000) for Germany and, Prowse (1992)[6] for Japan], do not find a clear-cut relationship. Finally, other papers, such as Banerjee *et al.* (1997) for holding companies in France; Giner and Salas (1997) for Spain; Morck *et al.* (2000)[7] and Weinstein and Yafeh (1998)[8] for Japan, show the existence of a negative relationship. In this case, the main argument is the existence of a minority expropriating issue.

Our contention is that it is possible to reconcile the previous results, once we incorporate in the analysis the type of coalitions that banks form with other blockholders in order to control a firm. We have argued that homogeneous coalitions of two banks are particularly negative for a firm's returns but this may not be the case when a non-controlling blockholder bank colludes with non-banks to control a firm. Along

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[5] We have developed a simplified theoretical model based on Laporta *et al.* (2002), so that the results that we are going to deduce from the previous statement can be derived in a more formal way. This model is available upon request.
[6] This author finds a positive relation for independent Japanese firms, but this is not the case for firms that are members of corporate groups (keiretsu).
[7] These authors find a negative relationship when banks' ownership is not quite high.
[8] This study shows that banks use their bargaining power to charge above market rates from those bank-participated firms.

these lines, but applied to another type of blockholder (families), Maury and Pajuste (2004) analyze a sample of Finnish listed firms. The finding is that the coalition of two families has a negative effect on a firm's value, while the opposite is true when the coalition is with a non-family owner (generally a financial institution). In this instance, we focus on banks and we propose:

Hypothesis 2A: There is a negative impact on a firm's returns when a bank acquires one of the largest stakes of a firm that has other banks as controlling blockholders.

Once we compare heterogeneous blockholder structures composed of banks and non-banks, we expect different results contingent on the type of main blockholders. In particular, structures with a bank as the leading shareholder should generate more intensive expropriating policies in comparison to those coalition structures with a bank as the second main blockholder whose effect, in this case, may not be negative. In the former situation, a bank as a leader has high bargaining power, especially when the stake it is representing is taken into consideration. This allows them to impose expropriating actions bypassing contrary opinions from other non-bank blockholders in this heterogeneous structure. This is consistent with what Boehmer (2000) finds making use of a sample of German bidder firms. This author obtains that takeovers only increase the value of an acquiring firm that has banks as blockholders if bank control is counterbalanced by another large shareholder. Also, Boehmer's study shows that the worst takeovers are completed by firms that are majority-controlled by financial institutions. This is precisely what we state in the following hypothesis:

Hypothesis 2B: When a bank buys a significant stake in a firm without other banks with large stakes, the effect on a firm's returns is more negative when it acquires the largest stake instead of the second-largest one.

A final note is that we should incorporate in our analysis the possibility that a bank owner can also be a lender.[9] In this case, there are countervailing effects. On the one hand, as we mentioned before, blockholder banks that are also lenders can force the firm to borrow money from them at a rate above market rates. On the other hand, if a firm bears a large cost of capital for its bank credits, the probability of bankruptcy increases and this damages the interest of shareholders' banks. Hence, the natural conflict of interest between shareholders and creditors that generates inefficiencies in a firm's investment can be mitigated if the bank is able to hold equity and debt (Kroszner and Strahan, 2001a). This may result in an implicit protection of minority shareholders. To explore the relevance of each effect is an empirical issue

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[9] In our sample, the probability of a bank lending to their participated firm when it holds one of the two largest stakes is 0.547 in our sample.

that is worth taking into consideration when analyzing the impact on a firm's performance of banks buying a firm's controlling stakes.[10]

3. Database and descriptive analysis

3.1. The Data

We carry out our empirical analysis making use of a sample of firms for the period 1996-2000. This sample is extracted from the SABE database (Sistema de Análisis de Balances de Empresas Españolas). This database is compiled by Bureau Van Dijk and provides annual information on balance sheets, income statements and other complementary information such as a firm's ownership. It covers companies of all sizes and all economic sectors. We have focused on non-financial firms with information on their ownership and which have been filtered. The final outcome is an unbalanced panel data of 4,400 firms with 12,629 observations for the period 1996-2000. We feel confident that our sample is quite representative of Spanish firms. In particular, by size, we have more than 90% of the SMEs (with less than 250 employees), while the figure corresponding to the overall Spanish firms is 83.68%. By economic sectors, in our sample (excluding the financial sector) we have the following distribution: Restaurants and Hotels (33.52%), Manufacturing (23.03%), Agriculture, Forestry and Mining (11.78%), Wholesale and Retail (7.56%), Company services (7.19%), Construction (6.12%), Transport and Communications (5.5%), Others (4.79%), Education (0.51%). Coinciding with our sample, the most relevant sector for the population of Spanish firms is that of Restaurants and Hotels (38.36%), while the remaining sectors follow a pattern similar to our distribution but with differences in the percentage.

3.2. Descriptive Evidence

In this section we show the main characteristics of the ownership structure of Spanish firms and the role that banks play in defining that structure as well as its effect on a firm's returns.

A/ Ownership structure of Spanish firms: The presence and the entrance of banks

The data shows that in most of the cases (80.5%), a single shareholder has a sufficiently large stake to control a firm. Also, the average stake of the main shareholder is 68.96% while that of the second largest is 11.94%. Hence, it seems reasonable to focus on the two main shareholders as a firm's controlling

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[10] The literature seems to suggest that the positive effect outweighs the negative one. Mahrt-Smith (2000) proves that a bank should hold a share of the equity of its borrowing firms when the latter may suffer hold-up problems. John et al. (1994) show in a context with moral hazard problems that bank equity holdings may be positive if they do not have too much power because it induces a firm to follows a not-so-conservative policy that would result when banks are only lenders. Dewenter and Hess (2003) find, making use of an international database, that relationship banking (providing both debt and equity financing) is more committed to its borrowing firms, which has positive effects on them. Finally, and looking to non-lending banks, Byrd and Mizruchi (2005) find that the presence of these banks on the board reduces a firm's debt-equity ratio. This is interpreted by the authors as a signal that banks are trying to pursue their own interests at the expense of other shareholders that may be better protected when debt-equity ratios are large.

blockholders.[11] Also, throughout the article we are making the "reasonable" assumption that the main blockholders collude among themselves when they need to add their stakes to control a firm.

Figures 1 and 2 show the distribution and the type of the two main shareholders. We can appreciate the relevance of cross-shareholdings among firms (in 87.5% of the cases, the main blockholder is another firm, and in 80.4% of the companies the second main blockholder is also a firm). Also, there is an important presence of individuals in a firm's ownership, which corresponds to family-owned firms.[12] Finally, financial institutions show some presence: In 2.3% of the cases they are the largest shareholder while in 5.3% of the observations they are the second largest shareholder. There are 484 observations where a bank is one of the ten main shareholders and, in approximately 70% of these cases it is also one of the two largest ones. Thus, we can state that financial institutions have controlling ambitions when they decide on becoming blockholders. We have to mention that the low incidence of banks as firms' blockholders is due to the high proportion of small firms (less than 50 employees) in our database (42.50%). As conservative investors, banks avoid investing in low-liquidity assets (Winton, 2001) such as those of small firms.[13] In particular, banks invest in small firms in just 26.03% of the cases; in medium-size firms in 30.17%, (between 50 and 250); and in large firms in the remaining 43.8%.

[INSERT FIGURES 1 AND 2 ABOUT HERE]

Next, we present descriptive evidence of different factors that determine banks' ownership as well as the type of coalitions that banks[14] form with other blockholders in order to control a firm. We characterize these coalitions with four variables: BB is a dummy variable that is equal to 1 if the two largest shareholders are banks, and 0 otherwise; BNB is a dummy variable that is equal to 1 if the main shareholder is a bank but the second largest is not a bank, and 0 otherwise; NBB is a dummy variable that is equal to 1 if the second-largest shareholder is a bank but the largest one is not a bank, and 0 otherwise. Finally, NBNB takes the value of 1 if two main shareholders are not banks, and 0 otherwise.

Table 1 shows that banks tend to form coalitions with other banks rather than with non-banks: A bank appears as the largest blockholder with a probability of 22.75% when the second-largest shareholder is also a bank and with a probability of 1.15% when it is not. Also, these probabilities are 20.8% versus 1.04% when we focus on the presence of banks as the second-largest blockholders contingent on the presence or not of another bank as the largest blockholder. This means that there is a higher probability than one of the

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[11] Henceforth, we denote the two largest blockholders as controlling blockholders.

[12] In our sample, family firms are underrepresented. The "problem" is that many families participate indirectly in a firm's ownership through the stakes in other firms. Our focus on direct participation generates an overrepresentation of other firms' stakes and an underrepresentation of family firms.

[13] We may also interpret this low presence of banks in small firms as evidence that these firms may avoid banks on becoming controlling blockholders due to their expropriating eagerness. This opposition is more difficult to implement by large firms as they have less control on their ownership, which is more dispersed and even they are listed on the stockmarket.

[14] Henceforth, we use the word banks to refer to financial institutions (Banks and Saving & Loans).

largest shareholders being a bank when the other is also a bank instead of another type of blockholder. We may interpret, relying on our theoretical underpinnings, that banks as owners seem to be signalling to other banks of the possibility of undertaking expropriating actions. Also, from Table 1 we can extract the conclusion that there is no connection between banks' ownership and past-performance. This is defined by the variable return on assets (ROA, measured as the ratio of earnings, before interest and taxes on a firm's assets), but lagged by one period (ROA_1). We obtain lower probability of finding a bank as one of the two largest shareholders when the ROA_1 variable is lower than the mean of the sector in the corresponding year (ROA_1=0). This is initial evidence that banks' ownership is not the outcome of debt-to-equity conversion programs that may follow periods of financial distress. This is confirmed when we use variable FINDIS that controls for this event. In particular, this variable is defined in terms of the interest coverage ratio. A firm is in financial distress (FINDIS=1) when this ratio falls from a value larger than or equal to 2 to a value smaller than or equal to 1 in the next period.[15] We define interest coverage ratio as the ratio of earnings before interests, taxes and amortization to the reported interest expenses. We observe that after a period of financial distress, in general, there is a lower probability of finding banks holding stakes, especially if these are non-lending banks (variable BANK LENDING=0, which means that banks are not lending to their participated firms). This result may be consistent with the idea that non-lending banks are more eager to expropriate and consequently avoid those situations where the slack of resources to expropriate from are lower (*i.e.* financially-distressed firms). This idea is complemented when we look at the debt-to-equity ratio (DEQUITY, defined as a firm's total debt to internal funds) in the understanding that debt constrains the disposable resources. We find that there is a lower probability of banks' holding stakes after a period of large values on this ratio (larger values than that of the mean of the sector for the corresponding year DEQUITY=1). Also, when we compare those firms with banks' credits (BANK CREDIT=1) with those others without such a relationship (BANK CREDIT=0), there is a lower likelihood of banks holding stakes in the former case compared to the latter. This is further evidence that banks try to avoid those firms to which they have a lending relationship because this may hinder their expropriating intentions. However, we will see below that when banks decide to lend to their participated firms, they also expropriate by using the credit channel (which is not captured by the variable ROA).

[INSERT TABLE 1 ABOUT HERE]

B/ The effect of banks on stockholdings and returns

As mentioned in the theoretical section, the potential expropriating behavior of banks should be reflected in two dimensions: the main blockholders' stakes and the firm's returns. When we focus on the

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[15] This variable is used by Asquith, Gertner & Scharfstein (1994) to characterize situations of financial distress.

main blockholders' stakes, Table 2 shows that a coalition of both banks (BB=1) has a lower stake of the two main blockholders (OWN2=48.39%) than combinations of banks with non-banks, and these latter stakes are also lower than those of coalitions composed of non-banks as shareholders (81.33%). All this is consistent with the arguments expressed in the theoretical part.

Concerning a firm's returns, Table 2 shows that the presence of banks has significant effects on reduction in ROA advanced by one period (ROA1).[16] This effect is particularly clear in two situations. First, when banks' stakes are composed of non-lending banks instead of lending banks. Second, when the stake of the two largest stakeholders (OWN2) is lower than the mean of this variable for its sector and for the corresponding year (OWN2 LOW). Note that these are the scenarios where we expect more eagerness to expropriate.

A second interesting result refers to the increase in a firm's financing cost (defined as the ratio of financial expenses to the overall debt, FINANCOST), the period after the presence of lending banks holding one of the largest stakes. This is further evidence of banks' expropriating actions. Note that by just using ROA, by definition, we are neglecting a firm's financial expenses. This result reveals that banks' expropriating activities not only affect the potential overpricing of services such as insurance, consulting, and so on (non-credit activities), but also involve potential increases in a firm's cost of capital. Also, in the light of the previous results, we may expect that lending banks mainly concentrate their expropriating activities in the credit channel while non-lending ones do so in other activities.

Finally, concerning size effects (the variable SIZE is the number of employees on a log scale), we observe that it is more likely to find banks' stakes in large firms than in small ones.

[**INSERT TABLE 2 ABOUT HERE**]

C/ Interlocking

Further descriptive evidence of the potential banks' expropriating incentives emerges from the existence of an interlocking phenomenon among banks' stakes. To provide some evidence on this, we have analyzed those firms with at least one bank among the two largest shareholders. There are 107 of these firms with 45 different banks holding stakes in them. However, the distribution is quite asymmetric in the sense that there are only 14 banks with more frequent holdings than those derived from a purely random distribution. According to this latter distribution, a given bank should hold stakes in only 1/45=2.22% of the cases.

In order to give a measure of the degree of interlocking, we can define a Herfindahl-type index, I, that is simply the sum of the squares of the frequency distribution of the different banks in these 107

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[16] We advance this variable by one period to be consistent with the econometric specification where potential endogeneity problems may exist, as we argue in the methodology section. Additionally, we expect that the effect of a change in a firm's ownership will take some time to be translated to a firm's results.

firms (360 observations). The more uniformly distributed banks' appearances are (this is the situation with the lowest degree of interlocking), the lower the value of this measure. Formally, $I = \sum_{i=1}^{B} (\frac{B_i}{N})^2$ where B_i is the number of times that bank I holds stakes in one of the N=360 observations with at least one bank as the two largest shareholders. The minimum value of I, which corresponds to the random distribution, is $I = 1/45 = 0.022$. When we compute I value for our distribution, we obtain I=0.061, which is almost three times the value that corresponds to the non-interlocking scenario. Thus, we can conclude the existence of a significant interlocking. [17]

4. Econometric estimations

4.1. Methodology

The previous descriptive evidence suggests that banks, especially when they hold the largest stakes expropriate minority shareholders.

To investigate this issue in more depth, we estimate two equations: one on a firm's returns and the other on the main shareholders' stake. We recognize the potential endogeneity between both variables by allowing each dependent variable in one equation to enter as an independent variable in the other equation. This is shown to be the case in studies such as that of Demsetz and Villalonga (2001).

We measure the stake of two main blockholders in a firm with variable OWN2, which is simply the sum of its stakes. Concerning the firm's returns, we use the aforementioned return on assets (ROA), which is the ratio of earnings before interest and taxes on a firm's assets. Note that this variable does not capture effects on a firm's cost of capital due to banks holding stakes. To investigate this issue, we have carried out several estimations on variations in a firm's financing costs (FINCOST) defined as the ratio of financial expenses to total debt.

We conduct a longitudinal study of the effects of changes in a firm's controlling blockholders that are linked to banks. In particular, we focus on these effects on a firm's ownership and returns. We identify six possible changes in these controlling coalitions that involve banks. These are described by six different dummy variables ("transitional dummies"). These are: BB_NBNB, a dummy that is equal to 1 when BB=1

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[17] Interestingly, when we analyze those banks with a credit relationship with one of the previous 107 firms, we find 59 different banks amongst the two largest lenders. In that case, there are 13 banks with a more frequent credit relationship than that emerging from a purely random distribution (frequency greater than 1/59=1.69%). In this case we find that I=0.09 for bank lending relationships. This is more than 5 times the value that corresponds to the purely random distribution (1/59=0.017). Hence, there is also some interlocking in the credit channel. Also, we find that 8 of the more frequent lenders (61% of the total) are also among the most frequent banks holding one of the two largest stakes. This may be interpreted in terms of the existence of an expropriating mechanism relying on a bank's credit channel. The basic idea is that the small number of banks that are quite active holding stakes can easily agree among themselves to force their participated firms to borrow money from them through syndicated loans at a rate higher than market rates. This may justify that the banks more active in buying stocks are also those more active in lending money.

and zero when NBNB=1; BNB_NBNB, a dummy that is equal to 1 when BNB=1 and zero when NBNB=1; NBB_NBNB, a dummy that is equal to 1 when NBB=1 and zero when NBNB=1; BB_NBB, a dummy that is equal to 1 when BB=1 and zero when NBB=1; BB_BNB, a dummy that is equal to 1 when BB=1 and zero when BNB=1; BNB_NBB, a dummy that is equal to 1 when BNB=1 and zero when NBB=1. Figure 3 summarizes those changes described by the above transitional dummies:

<center>[INSERT FIGURE 3 ABOUT HERE]</center>

We conduct six different specifications, one for each "transitional dummy", which incorporates the same set of control variables. These variables are standard in this literature (Demsetz and Villalonga, 2001; Morck *et al.,* 1988).

For the estimation of OWN2, the independent variables that we consider are: first, banks' total stake (BANKSOWN). This is aimed at separating the effects on OWN2 due to changes in banks' stakes from those due to changes in the type of blockholder captured by the aforementioned "transitional dummy" variables. Second, we use a firm's overall sales on a log scale (LSALES) as a way to control for size effects. Third, reputation is measured by a firm's age (AGE). Fourth, the variable INTANG, defined as the ratio of intangible assets to total assets, is a control for a firm's potential growth. We also incorporate a variable of financial structure (DEQUITY) that is defined as the ratio of a firm's total debt to internal funds. Finally, we also introduce the aforementioned measure of a firm's returns (ROA), as well as temporal dummies ($Dumy_T$) and sectorial dummies ($Dumy_S$). Thus, the specifications we carry out are as follows:

$$OWN2_{it} = a + b_1 \begin{Bmatrix} BB\_NBNB \\ BNB\_NBNB \\ NBB\_NBNB \\ BB\_NBB \\ BB\_BNB \\ BNB\_NBB \end{Bmatrix}_{it} + b_2 BANKSOWN_{it} + b_3 LSALES_{it} + b_4 AGE_{it} + \tag{1}$$

$$+ b_5 INTANG_{it} + b_6 DEQUITY_{it} + b_7 ROA_{it} + \sum_{s=1}^{8} b_{7+S} Dumy_{Sit} + \sum_{T=1}^{4} b_{15+T} Dumy_{Tit} + h_i + e_{it}$$

Where e_{it} is the error term and has a normal distribution with zero mean and a σ^2 variance. Variable h_i accounts for the unobservable heterogeneity.

The second equation, which is linked to the previous one because it incorporates OWN2 as an independent variable,[18] is intended to estimate the effect on a firm's returns when banks buy a significant stake in a firm. The equation we propose has the same independent variables as the previous equation

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[18] If OWN2 is proved to be endogenous in the estimation of ROA, we are going to instrument the former with the predicted values found when estimating OWN2.

<center>13</center>

except BANKSOWN for identification purposes. We advance dependent variable ROA by one period. This is to avoid the kind of endogeneity problems that will be discussed later. Also, this recognizes the possible temporal lag that can induce a variation in a firm's returns when there is a change in its ownership structure.[19]

Summarizing, the second set of equations that we propose is:

$$ROA1_{it} = a + b_1 \left\{ \begin{array}{c} BB\_NBNB \\ BNB\_NBNB \\ NBB\_NBNB \\ BB\_NBB \\ BB\_BNB \\ BNB\_NBB \end{array} \right\}_{it} + b_2 LSALES_{it} + b_3 AGE_{it} + b_4 INTANG_{it} + \quad (2)$$

$$b_5 DEQUITY_{it} + b_6 OWN2_{it} + \sum_{S=1}^{8} b_{6+S} Dumy_{Sit} + \sum_{T=1}^{4} b_{14+T} Dumy_{Tit} + h'_i + e'_{it}$$

Where, as in equation (1), e'_{it} is the error term, which has a normal distribution with zero mean and a σ'^2 variance. Variable h'_i accounts for the unobservable heterogeneity.

It is important to mention that both estimations are restricted to those firms where the stake of the first shareholder is lower than 50%. This is to avoid situations where there is no need for coalitions in order to control a firm.

Moreover, in some specifications other considerations have been taken into account in order to investigate whether there is a differential effect of banks' ownership contingent on whether banks' owners are also lenders or not. In particular, we introduce an additional dummy variable that is the product of the corresponding "transitional" dummy variable with a variable (NL) that is equal to 1 when lending banks do not own a stake in the firm and zero otherwise.

From a methodological point of view, other features are considered. On one hand, in both estimations we allow for the existence of some unobservable heterogeneity potentially correlated with independent variables.[20] To overcome this problem we use the within group estimation when the Hausman[21] test reveals the existence of such a problem. We should mention that this source of endogeneity is absent in almost all estimations of the OWN2 variable, while it is present in several estimations of ROA.

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[19] Although we do not have a clear idea of what the temporal lag between changes in ownership and changes in a firm's returns would be, we restrict it to one year; otherwise we would not have enough observations to carry out our analysis. These limitations in the data also preclude us from making a long-term analysis of a firm's returns.

[20] If the unobservable heterogeneity is correlated with explanatory variables, we have to perform fixed-effects estimation. But, if it is not correlated with the explanatory variables, unconditional inference like that of the composed error method (random effects) is the most efficient alternative (Arellano and Bover, 1990).

[21] The Hausman test studies whether systematic differences exist between those coefficients of the fixed-effect estimation and those of the random-effects estimations. Particularly, the null hypothesis is that coefficients in both models have no systematic differences. If this null hypothesis is rejected, the only consistent estimator is the fixed-effects one. If not, the best alternative is to use the random-effect estimation.

On the other hand, we allow for a second endogeneity problem. This is linked to the possibility that a firm's ROA drives blockholders to change their stake in a firm. In that case, the estimation of a firm's returns would be biased. To tackle this problem, which is especially harmful when it is combined with the previous endogeneity issue, we advance variable ROA by one period. Similarly, we have conducted endogeneity tests in the OWN2 estimation, with negative results in all cases except in one of the specifications when we focus on listed firms (see Table 5). It is important to test for the existence of endogeneity; otherwise the estimation would be inconsistent.[22]

4.2. Results

The results of equation (1) are presented in Table 3, while those of equation (2) are shown in Table 4. Focusing on Table 3, in each column we estimate the effect of a banks' incorporation making use of the aforementioned 'transitional dummies''. All estimations have the same control variables described in the methodological part.[23] Also, we conduct two types of endogeneity tests. First, Hausman tests to control for the endogeneity linked to the unobservable heterogeneity (fixed effects). Second, we implement a Sargan test in the estimations of OWN2 to control for the possible correlation between the error term, not directly linked to the unobservable heterogeneity, and variable ROA of a firm's returns (see footnote 22). In all estimations neither type of endogeneity is found.

[INSERT TABLE 3 ABOUT HERE]

Inspection of Table 3 basically confirms Hypothesis 1 as the incorporation of a bank as one of the largest blockholders leads to a reduction in the stake of the two largest shareholders [24] in all cases except one: when a bank becomes the second-largest blockholder of a firm with a non-bank as the largest blockholder. [25] We interpret this result as the first evidence of banks' expropriating intentions.

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[22] The way we implement this is by testing systematic differences in the coefficients of two estimations on OWN2. First, an equation where the potential endogenous variable (ROA) is lagged by one period (the instrument). Second, an equation without instruments. If the test of the difference between both sets of coefficients is different from zero, there is endogeneity. We should mention that if the first type of endogeneity exists (this is not our case), the test is the same but the equations are different. The first equation includes variables in differences and the potential endogenous variable (ROA) is lagged by two periods (note that variables in differences include those lagged by one period). The second equation just incorporates variables in differences.

[23] We recognize that the results of some specifications (the last three columns of each table) should be taken with some caution due to the limited number of observations. This is the cause of the quite large value of R^2.

[24] An alternative interpretation of the reduction in the stake in the hands of the largest shareholders may be due to banks preference for investing in large companies with more diluted ownership. However, the Hausman test reveals that the coefficients obtained are not significantly different from those found with fixed-effect estimation. Note that in this type of estimation we are comparing the controlling stake of a particular firm before and after banks buying stakes. Hence all possible size effects are detracted from the coefficients in a fixed-effect estimation.

[25] Consistent with the non-significant result on NBB_NBNB, in the ROA estimation we will see that there is no effect on a firm's returns in the same situation described by variable NBB_NBNB.

It is worth emphasizing the non-significant effect of ROA on OWN2. This reveals that firms do not adjust their ownership structure in response to their results. We should mention that several studies for the USA such as that of Demsetz and Villalonga (2001) find that firms do in fact change their ownership structure contingent on their return. These studies focus on US-listed companies where it is possible to change conveniently a firm's ownership structure with low costs given the large liquidity of US stock markets. In our database there are only 133 firms (3% of the original sample) listed on the stock market. Thus, the average firm in our sample is not listed. This hinders changes in the ownership structure as time goes by. Moreover, when we focus on Spanish listed firms, this rigidity in the ownership structure remains. This has much to do with the relatively low diluted ownership of Spanish firms, even those that are listed on the stock markets.

Finally, control variables show that banks' ownership appears as part of concentrated ownership structures. This is consistent with the aforementioned idea that banks participate in a firm by playing a controlling role (*i.e.* holding one of the two largest stakes). Also, the variable AGE shows that older firms have more "diluted" ownership. It is natural that a firm is initially owned by few shareholders and these dilute its initial ownership as time goes by.

The estimations on ROA are displayed in Table 4. In all cases we take the dependent variable ROA advanced by one period as we have explained in the methodological section. We should mention that we do not take control variables advanced by one period because this may generate additional endogeneity problems. Also, this should introduce an *ad-hoc* asymmetry between these controls and those dummy variables that reflect changes in a firm's ownership structure.

[INSERT TABLE 4 ABOUT HERE]

The results of Table 4 can be summarized as follows:

1) There is a negative effect on a firm's return when a bank buys the largest stake of a firm that has another bank as the second largest shareholder (BB_NBB=1). This means that it is harmful for a firm when a bank entrance represents a change from a heterogeneous structure (NBB=1) to a homogeneous one (BB=1), especially if the bank holds the largest stake. This supports Hypothesis 2A.[26]

2) In heterogeneous structures (bank and non-bank), the incorporation of a bank as a firm's blockholder has a negative effect on returns when it holds the largest stake (BNB_NBNB), while it has non-negative effects when it holds the second largest stake (NBB_NBNB). This result supports Hypothesis 2B. This is in accordance with the aforementioned study by Boehmer (2000). This author uses a sample of German bidder firms to find that takeovers only increase the value of an acquiring firm that has banks as

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[26] According to Hypothesis 2A, we also expected a negative sign on variable BB_BNB. We may argue that a firm with a blockholder structure BNB suffers expropriation from its controlling bank in such a way that the incorporation of a second bank has only marginal negative effects.

blockholders if bank control is counterbalanced by another large shareholder. This study also shows that the worst takeovers are those in which riders are controlled by combinations of financial institutions.

3) Once we focus on those cases where we have found a significant effect of the transitional dummies on ROA, [columns 3 (NLBNB_NBNB) and 6 (NLBB_NBB)][27], we prove that non-lending banks have a more negative effect on ROA. Additionally, we have also conducted estimations (not reported) on the variation of a firm's financing costs in those cases where changes in banks' ownership have an effect on ROA (BNB_NBNB and BB_NBB). We find that there is an increase in financing costs for the estimation of BNB_NBNB.[28] This reinforces the expropriating argument once we focus on the credit channel, which is the natural channel through which banks and firms are connected. Hence, there is some sort of substitution between the different channels through which banks may expropriate. If they use the credit channel (lending banks that increase the financing costs), they use less non-lending channels (captured by the negative coefficient of NLBNB_NBNB which means a more negative effect on ROA for non-lending banks holding stakes).

4) We find a non-significant linkage between ROA and OWN2. This is remarkable given the result found in the OWN2 estimation (Table 3), which reveals that firms do not optimally adjust their ownership structure (there is not a significant effect of ROA on the OWN2 estimation). Thus, it makes sense for banks to shape that ownership structure to their own advantage at the expense of minority shareholders. Interestingly, the non-significant value of OWN2 is complemented with the negative effect of transitional dummies. This means that the negative impact of banks on a firm's returns is not mediated by reductions in the controlling stake. It is the type of incorporation of banks in a firm's controlling coalitions which generates such a negative outcome.

5) When two banks simultaneously become the main shareholders, there is no reduction in a firm's returns. However, once we use market data (see Table 6), there is such a reduction in a firm's market results. Markets react "immediately" and significantly to this particularly bad combination of shareholders.

6) Finally, concerning control variables. First, there is a weakly significant effect of AGE. Older firms show more ROA. Second, size has a negative or a non-significant effect on ROA. This result may be justified by invoking information asymmetries linked to large firms. Also, we have shown that banks invest more in large firms (42.5%) than in small ones (26.03%). Last, leverage plays a positive or non-significant effect on a firm's ROA. We found in Table 1 that larger values of debt-equity hinder banks from becoming a firm's shareholders because debt reduces the potential slack to expropriate from. This lower likelihood of banks holding stake may justify the positive impact of debt-equity on a firm's ROA.

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[27] In fact, this is only strictly true for the case of the transitional dummy BNB_NBNB. For the other case, BB_NBB, the negative coefficient is only marginally significant.

[28] Unfortunately, we have not been able to carry out the estimation based on the "transitional" dummy BB_NBB, because there are not enough observations.

From this analysis we can extract a recommendation favoring the use of share buy-back as compensation. The idea is to buy shares from controlling banks and distribute them to other types of blockholders. Preferably these other types of blockholders should be other firms with unrelated activities and/or listed ones. Graham Jr and Lefanowicz (1999) show that there is not a wealth transfer from the minority to the majority owners when blockholders are other publicly-traded companies. Thus, using share buy-backs is a natural way to promote a market mechanism for corporate control that has been shown to be an effective means of reducing agency costs as Weir *et al.* (2002) show for the UK.

5. Robustness Analysis

A/ Debt-to-equity conversion

Our result of lower returns when a bank becomes a firm's largest blockholder may be explained in terms of a debt-to-equity conversion program. Banks may obtain shares of distressed firms as the outcome of a debt-to-equity swap following a debt renegotiation process. This would generate a problem of sample selection bias. We investigate this issue in more depth and according to the results shown in Table 1, we do not find an increase in the likelihood of banks holding stakes after a period of low ROA or when there is a deep reduction in the interest coverage ratio. Thus, it seems that debt-to-equity conversion is not the driving mechanism to explain reductions in ROA when a bank becomes a firm's largest blockholder.

B/ Market data

A second way to extend our analysis is by *focusing on listed firms.* This allows us to use market measures of a firm's results instead of accounting measures. In particular, the variable we use, Q, is defined as the market-to-book ratio (Q-ratio).

Table 5 shows the results of the estimation of the stake of the two main blockholders while in Table 6 we show the results of the determinants of a firm's market performance. Due to the restricted number of listed firms, we did not rule out firms whose largest blockholder stake is higher than 50%. This does not substantially change our sample as OWN2 for listed firms has an average of 29.07%, and the stake of the main shareholder in 90% of the cases is lower than 50%.

In these estimations, we treat the endogeneity issue in the usual way. First, we conduct Hausman tests to check for the existence of unobservable heterogeneity correlated with independent variables (fixed effects). Second, we implement tests of endogeneity not related to the unobservable heterogeneity. This latter test reveals the non-existence of such a problem.[29]

[INSERT TABLE 5 ABOUT HERE]

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[29] The only exception is the case NBB_NBNB in Table 5. In that case we used the one-period lagged variable ROA_1 as an instrument of ROA.

Table 5 shows that banks on becoming one of the two largest blockholders induce, in general, a reduction in the stake of the two main shareholders (OWN2). This is strictly true when a bank buys the largest stake and not the second-largest one. This goes in line to Hypothesis 1.

The analysis of a firm's performance with the market-to-book ratio (Table 6) reveals that a bank buying a controlling stake has a negative effect on the market-to-book ratio, in the following cases:

First, when two banks buy the controlling stake of a firm without banks as its main shareholders (BB_NBNB). This supports Hypothesis 2A. In this situation, we find that markets react in the same period of the change in the ownership structure. We interpret this feature as a strong negative signal of potential expropriation risks. And, accordingly, markets react "quickly".[30]

Second, there is also a negative reaction when a bank becomes the main blockholder of a firm that initially did not have banks as blockholders (BNB_NBNB). This conforms to Hypothesis 2B.[31]

Some final comments concerning control variables are pertinent. First, some specifications show that smaller firms show a superior Q-ratio value (growth-firms with a high Q-ratio tend to be small). Second, there is a weak negative effect of the stake of the two main blockholders on a firm's market performance. This does not coincide with the non-significant effect found using accounting measures. This result may be explained in terms of the lower stake in the hands of the two largest shareholders of listed firms (29.07%) in comparison with non-listed ones (80.92%). As OWN2 increases and approximates to 50%, there is more expropriation and, consequently, lower returns. Finally, we do find some evidence of a negative impact of leverage on the Q-ratio. There is a large amount of literature that shows a negative relationship between a firm's growth (positively related with Q-ratio) and its leverage.

[INSERT TABLE 6 ABOUT HERE]

Finally, figure 4 synthesizes our findings:

[INSERT FIGURE 4 ABOUT HERE]

6. Conclusions

In this article, we study how the returns of a firm and the stake of its largest blockholders are affected when a bank becomes the shareholder with the largest or the second-largest stake.

Our premise is that there is an increase in minority expropriation when a bank buys a significant stake of a firm that has another bank as controlling shareholder. However, this is not true when the largest stake is in the hands of another type of blockholder (*e.g.* a firm, an individual, ..). We base this statement on

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[30] Although we did not advance the Q variable by one period, we did not find any endogeneity problem.
[31] We also expected a negative outcome for the transitional dummy BB_NBB. However, there are very few observations in this specification (38) and we do not feel very confident with these results as well as those of the last two columns of Table 6.

different arguments. First, banks are quite homogeneous blockholders with similar objectives. This favors their agreement (diminish the so-called *bargaining effect*) on the actions to be taken in order to enjoy private benefits at the expense of the minority. On the contrary, this agreement is more difficult to achieve when other controlling blockholders are not banks as their private interest are, in principle, more divergent to those of the banks. Second, a bank, especially when it becomes the largest blockholder, can control a firm without owning a large stake. This is so because it may hold the representation of other shareholders. Moreover, blockholder banks, especially when forming a coalition with other banks, are also syndicated lenders to firms in which they have invested. This makes them particularly powerful, even with low stakes, as they may refuse to renew their outstanding loans to these firms. Finally, there is an interlocking phenomenon in countries like Spain where quite a few number of banks are active holders of firms' stakes. This favors their tacit collusion to force firms' action to their own interests.

We test our conjecture of banks' expropriating intentions by looking at two dimensions –a firm's profitability and its stake-. This generates two sets of hypotheses. First, the existence of a negative impact on a firm's returns when a bank becomes a large blockholder of a firm with other banks holding large stakes. However, this is not true when a bank does not hold the largest stake of a firm with a non-bank as the largest blockholder. Second, consistent with the previous hypothesis, we expect a reduction in the stake of the controlling coalition when a bank enters in a firm's ownership as one of the main shareholders and has other banks as potential blockholders to collude with. This reduction does not exist when a bank does not acquire a dominant position in front of blockholder that are not banks. Also, related to this latter result, we expect that banks are more likely to take part in controlling coalitions with other banks rather than with other types of blockholders.

To test the previous hypotheses, we carry out an empirical study with a panel data sample of Spanish firms that covers the period 1996-2000. This sample is extracted from the database SABE that is collected by Bureau Van Dijk. The results we find can be summarized as follows:

1) There are two cases when banks on becoming blockholders generate negative returns. First, when a bank buys the largest stake. Second, when two banks together become the main blockholders of a firm that did not initially have banks as main blockholders. We should stress that this latter result is only found when we measure a firm's performance making use of market data. Additionally, we have found that there is an increase in the financing costs when a bank buys the largest stake of a firm.

2) When a bank buys the second-largest stake of a firm, it does not generate any negative effect on a firm's returns. This is independent of who the main blockholder is.

3) The controlling coalitions that incorporate banks have lower stakes than those without banks. This is not true when a bank buys the second largest stake, which is consistent with the results on a firm's returns.

4) Banks tend to appear together with other banks as a firm's main blockholders.

5) It seems that there is some sort of substitution between the different channels through which banks may expropriate. If they use the credit channel (lending banks), they use fewer non-lending channels.

The previous results basically confirm our basic statement: a bank expropriates minority shareholders when it buys a controlling stake and/or forms a coalition with other banks. However, the presence of banks has no negative effects on returns when they become the second-largest blockholder.

We feel confident that these results are valid because they are robust to accounting measures as well as to the market measures of a firm's performance and to different specifications. However, one major drawback in our paper is that it does not address the question of indirect participations. This provides a blurred image of what the "real" ownership structure is. We should mention that it is quite common in Spain to find indirect participations of banks in different firms. Interestingly, this feature reinforces our main result because even underestimating expropriation costs by focusing on direct participations, banks follow value-destroying expropriating policies.

Finally, some recommendations can be extracted from our paper. First, firms should try to promote heterogeneous types of controlling blockholders. Second, they should try to avoid having several banks as controlling blockholders. Finally, it is better to use share buy-backs instead of dividends as a compensation mechanism. This allows firms to buy stakes from one type of blockholders and distribute them to a different type of blockholders or float them on the stockmarket. The investigation of the efficiency of this measure will be the subject of future research.

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Table 1

Table 1 analyzes the determinants of the presence of banks, through the analysis of different characteristics of the companies. BANK1 is a dummy that is equal to 1 if the main shareholder is a bank, and 0 otherwise; BANK2 is equal to 1 if the second-largest shareholder is a bank and zero otherwise. NBNB is a dummy variable that takes the value of 1 when neither of the largest shareholders are banks and 0 if both of them are. The remaining variables are defined in the text.

	Probability of Bank1=1 if	Probability of Bank2=1 if	Probability of NBNB=0
BANK2=1	22.75%		
BANK2=0	1.15%		
P-value[1]	(0.000)		
BANK1=1		20.8%	
BANK1=0		1.04%	
P-value[1]		(0.000)	
ROA_1=1	1.492%	1.368%	2.587%
ROA_1=0	1.351%	1.242%	2.245%
P-value[1]	(0.522)	(0.552)	(0.233)
FINDIS_1=1	1.117%	1.452%	2.285%
FINDIS_1=0	1.549%	0.929%	2.245%
P-value[1]	(0.156)	(0.051)	(0.9115)
FINDIS_1=1 & BANK LENDING=0	3.571%	0.607%	0.934%
FINDIS_1=0 & BANK LENDING=0	7.803%	0.583%	1.291%
P-value[1]	(0.011)	(0.893)	(0.143)
DEQUITY_1=1	1.381%	1.156%	2.268%
DEQUITY_1=0	1.507%	1.507%	2.690%
P-value[1]	(0.555)	(0.085)	0.136
BANK CREDIT=1	0.945%	1.226%	1.979%
BANK CREDIT =0	2.622%	1.552%	3.612%
P-value[1]	(0.000)	(0.144)	(0.000)

[1] In parentheses the p-values of the Mann-Whitney tests.

Table 2

Table 2 contains a descriptive study of the effects of banks' ownership on relevant variables of their participated firms (main blockholders' stakes, their returns and their size). The SIZE variable is computed as the logarithm of the number of employees. The rest of the variables are defined in the text.

	BB=1 [1]	BNB=1 [1]	NBB=1 [1]	NBNB=0 [1]	NBNB=1 [1]
OWN2	48.392%	68.654%	64.876%	64.611%	81.328%
	(0.000)	(0.000)	(0.000)	(0.000)	
ROA1	9.592	6.723	8.287	7.599	8.618
	(0.744)	(0.006)	(0.242)	(0.061)	
ROA1 & BANK LENDING=0	9.391	5.599	7.048	6.561	8.618
	(0.593)	(0.003)	(0.099)	(0.003)	
ROA1 & BANK LENDING=1	9.642	7.703	9.246	8.607	8.618
	(0.992)	(0.863)	(0.857)	(0.791)	
p-value [2]	0.587	0.087	0.310	0.033	
ROA1 & OWN2 LOW	9.857	6.533	5.314	6.508	9.231
	(0.979)	(0.004)	(0.003)	(0.000)	
ROA1 & OWN2 HIGH	8.532	6.913	13.034	9.292	8.294
	(0.850)	(0.921)	(0.132)	(0.375)	
p-value [2]	0.892	0.249	0.014	0.023	0.006
FINAN COST1 BANK LENDING=1	0.062	9.811***	0.734	4.580***	0.626
	(0.885)	(0.000)	(0.971)	(0.029)	
SIZE	0.632	0.375	0.682	0.534	0.415
	(0.007)	(0.3298)	(0.000)	(0.000)	

[1] In parentheses the p-values of the Mann-Whitney tests with respect to NBNB=1 coefficient. All measures are in percentages

[2] This p-value is the result of conducting Mann-Whitney tests comparing the results of the previous two rows for each column.

Table 3

Table 3 reports the effects on ownership concentration of changes in a firm's ownership structures associated with the presence of banks as the two main shareholders. These changes are measured through the "transitional dummies" defined in the text.

	OWN2 [1]	OWN2 [1]	OWN2 [1]	OWN2 [1]	OWN2 [1]	OWN2 [1]
BB_NBNB	-23.222*** (5.182)					
BNB_NBNB		-11.520*** (3.420)				
NBB_NBNB			-2.724 (1.880)			
BB_NBB				-6.958*** (1.481)		
BB_BNB					-6.293*** (1.639)	
BNB_NBB						-11.418*** (1.688)
BANKSOWN	0.238** (0.135)	0.381*** (0.135)	0.309*** (0.121)	0.204** (0.098)	0.296*** (0.059)	0.813*** (0.113)
LSALES	-0.128 (0.126)	-0.106 (0.121)	-0.118 (0.124)	-0.481 (0.330)	-0.014 (0.145)	-0.227 (0.252)
AGE	-0.157*** (0.048)	-0.163*** (0.048)	-0.170*** (0.048)	-0.229** (0.127)	0.021 (0.099)	-0.156 (0.103)
INTANG	-5.490 (4.511)	-5.566 (4.498)	-6.098 (4.472)	16.247 (20.320)	9.749 (21.328)	-50.107 (31.587)
DEQUITY	0.255 (1.057)	0.409 (1.052)	0.303 (1.051)	-0.650 (3.485)	1.712 (3.303)	7.118 (5.303)
ROA	1.235 (2.406)	1.073 (2.378)	1.602 (2.386)	13.365* (7.674)	-10.699* (6.692)	2.937 (6.227)
Fitness of the model [2]	3681.43 (0.000)	3695.52 (0.000)	3707.88 (0.000)	66.44 (0.000)	297.55 (0.000)	90.58 (0.000)
Hausman Test [3]	5.26 (0.999)	26.50 (0.117)	11.46 (0.933)	3.84 (0.986)	17.35 (0.137)	19.75 (0.138)
Endogeneity Test [4]	14.48 (0.697)	14.20 (0.716)	13.77 (0.797)	-6.11 (1.000)	-2.60 (1.000)	15.28 (0.431)
R^2	2.04	2.14	1.70	31.27	70.57	61.58
Observations [5]	3183	3218	3214	83	87	118

[1] ***p-value 0.01, ** p-value 0.05, *p-value 0.10. In parentheses Standard Deviations. See the definition of the variables in the text.

[2] X^2 statistics and p-values of fitness of the model tests.

[3] X^2 statistics and p-value for the Hausman Test.

[4] X^2 statistics and p-value for the Sargan Test (p-value>0.10 reveals that there is no endogeneity).

[5] The number of observations in each specification changes due to the way "transitional" variables is defined.

Table 4

Table 4 reports the effects on returns of changes in a firm's ownership structures associated with the presence of banks as the two main shareholders. These changes are measured through the "transitional dummies" defined in the text.

	ROA1[1]	ROA1[1]	ROA1[1]	ROA1[1]	ROA1[1]	ROA1[1]	ROA1[1]	ROA1[1]
BB_NBNB	-0.055 (0.078)							
BNB_NBNB		-0.068** (0.036)	0.028 (0.049)					
NLBNB_NBNB			-0.123*** (0.042)					
NBB_NBNB				-0.002 (0.023)				
BB_NBB					-0.142** (0.058)	-0.152*** (0.058)		
NLBB_NBB						-0.056 (0.049)		
BB_BNB							0.047 (0.035)	
BNB_NBB								0.027 (0.021)
LSALES	-0.004 (0.005)	-0.003 (0.005)	-0.003 (0.005)	-0.005 (0.005)	-0.029** (0.013)	-0.029** (0.012)	0.009 (0.008)	0.006 (0.005)
AGE	0.010* (0.006)	0.010* (0.006)	0.010* (0.006)	0.010** (0.006)	-0.005 (0.007)	-0.008 (0.008)	-0.002 (0.001)	-0.000 (0.000)
INTANG	0.009 (0.067)	0.014 (0.067)	0.012 (0.067)	0.005 (0.067)	2.549 (1.280)	1.479 (1.574)	-0.644 (0.895)	-0.393 (0.399)
DEQUITY	0.020 (0.013)	0.021* (0.013)	0.021* (0.013)	0.022** (0.013)	0.144 (0.124)	0.162 (0.124)	-0.010 (0.092)	0.014 (0.061)
OWN2	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.012*** (0.004)	-0.012*** (0.004)	0.001 (0.001)	-0.000 (0.002)
Fitness of the model[2]	1.42 (0.11)	1.76 (0.028)	2.16 (0.003)	1.44 (0.111)	3.14 (0.021)	2.99 (0.025)	26.55 (0.03)	47.50 (0.000)
Hausman Test[3]	52.56 (0.000)	54.74 (0.000)	56.14 (0.000)	61.72 (0.000)	34.72 (0.000)	31.97 (0.000)	5.67 (0.773)	10.62 (0.388)
R^2	1.84	2.24	2.89	1.84	58.25	61.26	33.53	24.34
Observations[4]	2272	2300	2300	2298	62	62	64	90

[1] ***p-value 0.01, ** p-value 0.05, *p-value 0.10. In parentheses Standard Deviations. See the definition of the variables in the text.

[2] Statistics and p-values of fitness of the models. In the fixed-effect estimations they are the F statistics. For the random-effect estimations they are the X^2 statistics.

[3] X^2 statistics and p-value for the Hausman test.

[4] The number of observations in each specification changes due to the definition of "transitional" variables.

Table 5

Table 5 focuses on listed firms and shows the effects on ownership concentration of changes in a firm's ownership structures associated with the presence of banks as the two main shareholders. These changes are measured through the "transitional dummies" defined in the text.

	OWN2 [1,2]	OWN2 [1,3]	OWN2 [1,3]	OWN2 [1]	OWN2 [1]	OWN2 [1]
BB_NBNB	-12.103[*] (7.654)					
BNB_NBNB		-18.070[***] (6.826)				
NBB_NBNB			5.899 (6.948)			
BB_NBB				-7.137[***] (1.808)		
BB_BNB					2.610 (3.080)	
BNB_NBB						-27.008[**] (5.434)
BANKSOWN	-0.641[**] (0.330)	-0.415 (0.333)	-1.342[***] (0.387)	0.071 (0.200)	0.657[***] (0.136)	1.420[***] (0.344)
LSALES	0.449 (0.722)	2.513 (0.912)	1.393 (1.035)	0.112 (0.543)	-0.037 (0.493)	0.779 (1.017)
AGE	-0.049 (0.115)	-0.127[*] (0.081)	-0.131 (0.112)	-0.125 (0.228)	-0.232[***] (0.071)	0.434 (1.151)
INTANG	-32.547 (26.872)	-78.481[**] (36.794)	-22.234 (48.434)	50.094 (42.873)	0.291 (36.993)	114.655 (180.407)
DEQUITY	8.036 (8.080)	9.662 (10.760)	29.615[**] (14.222)	-2.985 (3.947)	-4.353 (5.006)	-8.745 (10.693)
ROA	-0.084 (0.279)	0.592 (0.411)		0.045 (0.115)	-0.217 (0.263)	-0.019 (0.408)
ROA_1			10.759 (81.470)			
Fitness of the model[4]	27.56 (0.069)	3.25 (0.000)	1.96 (0.022)	24.64 (0.055)	393.26 (0.000)	4.20 (0.001)
Hausman Test[5]	7.65 (0.937)	19.36 (0.198)	7.61 (0.938)	1.53 (0.998)	-339.74 (1.000)	56.24 (0.000)
Endogeneity Test[6]	12.74 (0.754)	0.66 (1.000)	33.26 (0.007)	0.14 (1.000)	10.34 (0.666)	10.66 (0.384)
R^2	2.22	29.15	26.37	26.07	80.80	65.99
Observations[7]	148	161	111	55	47	68

[1] ***p-value 0.01, ** p-value 0.05, *p-value 0.10. In parentheses Standard Deviat. See the definition of the variables in the text.

[2] Maximum-likelihood estimation (to improve the fitness of the model).

[3] Simple regression (to improve the fitness of the model).

[4] Statistics and p-values of fitness of the models. In the fixed-effect estimation they are the F statistics. For the random-effect estimations they are the X^2 statistics.

[5] X^2 statistics and p-values for the Hausman test.

[6] X^2 statistics and p-values for the Sargan Test (p-value>0.10 reveals that there is no endogeneity). Only in the estimation of NBB_NBNB, was an endogeneity relationship found. In that case, we have lagged variable ROA by one period (ROA_1).

[7] The number of observations in each specification changes due to the definition of "transitional" variables.

Table 6

Table 6 focuses on listed firms and shows the effects on a firm's performance of changes in its ownership structures associated with the presence of banks as the two main shareholders. These changes are measured through the "transitional dummies" defined in the text.

	Q [1][2]	Q1 [1]	Q1 [1]	Q1 [1][3]	Q1 [1]	Q1 [1]	Q1 [1]
BB_NBNB	-6.654** (3.448)	-1.815 (2.255)					
BNB_NBNB			-3.120** (1.721)				
NBB_NBNB				-0.540 (1.503)			
BB_NBB					1.066 (10.070)		
BB_BNB						3.113 (3.591)	
BNB_NBB							1.947 (4.442)
LSALES	-1.908*** (0.219)	0.577* (0.324)	0.715*** (0.310)	0.404 (0.345)	-6.370** (2.546)	0.619 (0.398)	-5.567** (2.273)
AGE	1.817*** (0.615)	0.006 (0.033)	-0.013 (0.028)	0.007 (0.032)	2.419 (1.808)	-0.116* (0.065)	2.739** (1.334)
INTANG	5.684 (11.786)	-8.477 (17.916)	-14.661 (16.896)	0.753 (17.486)	-44.023 (451.470)	-78.269 (72.460)	94.962 (412.602)
DEQUITY	3.175 (3.518)	-5.836* (3.646)	-5.758* (3.547)	-5.556 (3.589)	-16.455 (16.071)	-13.514 (8.691)	-21.325* (12.734)
OWN2	-0.043 (0.041)	-0.051* (0.030)	-0.049* (0.030)	-0.018 (0.029)	-0.754 (0.801)	-0.228* (0.119)	-0.176 (0.166)
Fitness of the model[4]	9.19 (0.000)	37.85 (0.002)	28.53 (0.027)	22.24 (0.136)	2.98 (0.055)	32.13 (0.002)	4.31 (0.005)
Hausman Test[5]	41.12 (0.000)	5.14 (0.953)	4.51 (0.972)	14.99 (0.242)	17.65 (0.024)	9.72 (0.205)	29.83 (0.000)
Endogeneity Test[6]	0.98 (0.999)						
R^2	63.84	11.89	15.58	3.14	70.43	53.07	65.72
Observat. [7]	148	94	106	108	38	36	50

[1]***p-value 0.01, ** p-value 0.05, *p-value 0.10. In parentheses Standard Deviations. See the definition of the variables in the text.

[2] This Q-ratio is not advanced by one period.

[3] Maximum-likelihood estimation (to improve the fitness of the model).

[4] Statistics and p-values of fitness of the models. In the fixed-effect estimations they are the F statistics. For the random-effect estimations they are the X^2 statistics.

[5] X^2 statistics and p-values for the Hausman Test.

[6] X^2 statistics and p-values for the Sargan Test (p-value>0.10 reveals that there is no endogeneity).

[7]The number of observations in each specification changes due to the way "transitional" variables is defined
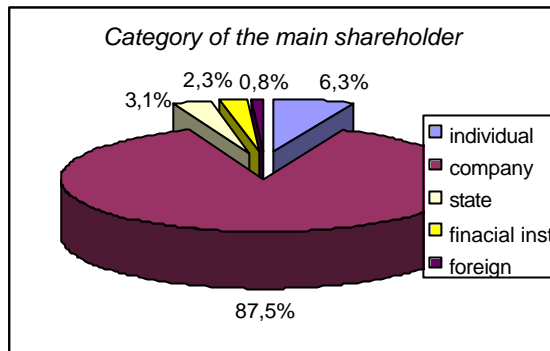
Figures

Figure 1

Category of the main shareholder

individual
company
state
finacial inst
foreign

3,1% 2,3% 0,8% 6,3%

87,5%

Figure 2

Category of the second main shareholder

individual
company
state
financial institution
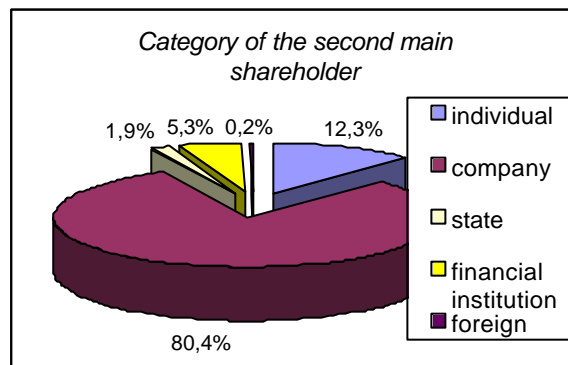foreign

1,9% 5,3% 0,2% 12,3%

80,4%

Figure 3
Changes in the composition of the two main blockholders involving banks as main blockholders
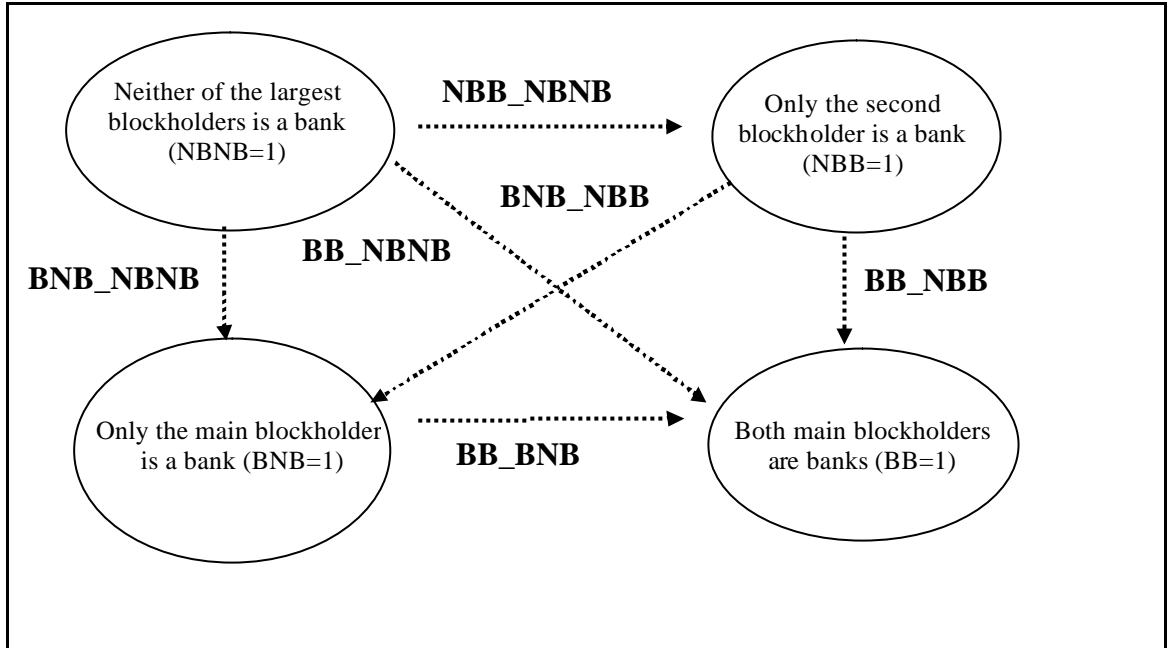

Figure 4
Effects on returns of changes in a firm's ownership caused by banks