PRIVATE BENEFITS OF CONTROL IN THE BANKING INDUSTRY: A CROSS-COUNTRY ANALYSIS

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Abstract

The study explores the existence and magnitude of private benefits of control in the banking industry around the world. By analyzing 157 control-transfer transactions for banks in 40 countries, we are able to detect the existence of an average 3.3% block transaction premium as a measure of private benefits of control. Consistent with the legal origin theory about the protection of minority shareholders, we find that banks operating in French civil law regimes show on average higher premiums than the banks operating in other legal frameworks. The paper also investigates to what extent regulation and public policies can curb those benefits thus enhancing bank governance. While bank-specific regulation generally does not seem to have a substantial impact on private benefits of control, the regulation on entry appears to play a moderate role in curbing those benefits.

Keywords: Corporate Governance, Banking, Control Transfers, Ownership Structures, Investor Protection, Regulation

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1. Introduction

Financial crises dramatically advertise the enormous consequences of poor governance of banks. Non only banks are critically important for economy growth and capital allocation (Rajan and Zingales, 1998; Levine et al. 2000; Levine, 2004), but, as major creditors (and in most countries as major equity holders), they also have a key role in governing firms and shaping their governance. Given the importance of banks, it is arguable that the governance of banks themselves plays a key role for the whole financial and economic system. If banks face sound governance mechanisms, they will be more likely to allocate capital efficiently and exert effective corporate governance over the firms they fund (Caprio et al., 2007). In contrast, if banks managers and/or controlling shareholders enjoy enormous discretion to act in their own "private" interests rather than in the interests of debt holders and minority shareholders, then banks will be correspondingly less likely to allocate society's savings efficiently and exert sound governance over firms (Levine, 2004).

Despite the importance of banks in the economy and the relevance of the bank governance issue, so far the evidence about how laws and regulations enhance the governance of banks is relatively limited (Mehran, Morrison, Shapiro, 2011). In particular, there are limited empirical findings on whether shareholder protection laws influence the corporate governance of heavily regulated and opaque financial institutions like banks differently from companies in other industries. One notable exception is Caprio et al. (2006) which investigated the ownership of 244 banks in 44 countries, showing that stronger legal protection of minority shareholders is associated with more highly valued banks. This finding suggests that expropriation of minority shareholders is important in many countries, and that legal mechanisms can thwart expropriation of bank resources.

It is therefore crucial to understand both to what extent controlling parties at banks can expropriate minority shareholders, and which laws and regulations can actually improve the governance of banks.

Along this line, this paper investigates the existence and magnitude of private benefits of control in the banking industry internationally. Private benefits of control are interesting phenomena in themselves but more importantly they are a measure of minority shareholders expropriation, and therefore they are a proxy of the quality of corporate governance (Dyck and Zingales, 2004).

One contribution of this paper is to assemble and analyze detailed data on block transactions in the banking sector around the world. We construct a new database covering 157 control-transfer transactions across 40 countries. We are able to detect average private benefits of control amounting to 3.3% of equity and we examine their legal and regulatory

determinants. We find evidence that effective shareholder protection mechanisms are associated with lower private benefits of control. We also observe that, to a certain extent, industry-specific regulations and supervisory practices affect the expropriation of minority shareholders.

The paper is structured as follows: Section 2 introduces a general definition of private benefits of control and discusses their role in the banking industry; Section 3 discusses the influence of regulation and legal origins on the corporate governance features in place at banks around the world; Section 4 describes the data used, presents descriptive statistics, and analyzes the correlation between the magnitude of the private benefits of control and the various regulatory features and institutional characteristics; finally Section 5 discusses our findings and concludes.

2. Private Benefits of Control in the Banking Sector

Private benefits of control are benefits that accrue to controlling shareholders and/or managers but not to minority/outside shareholders. Such benefits may include high salaries, perquisities, self-dealing, and the power to tailor company policy to one's personal interests. In fact, those benefits, in order to maintain their "private" nature, and then to accrue to controlling shareholders alone, are almost always not discernible by minority shareholders, as a consequence, by definition, they are difficult to spot and hence to prove in a court (Dyck and Zingales, 2004).

As private benefits of control are rarely directly observable or measurable, the financial literature presents two indirect methods to estimate them. The former (namely, the study of firms with dual-class shares) estimates the value of private benefits of control through the analysis of voting premia (Zingales (1994, 1995); Nenova (2003)). The latter involves the study of block transactions. Barclay and Holderness (1989), who pioneered the method, argued that the value of control can be proxied by the difference between the price per share paid in out-of-the-market control transactions, and the market price of the same share after the market has incorporated the effects of the transaction (usually 2 days after)[1]. In order to build an estimate of private benefits, in literature the price premium is usually adjusted by multiplying it by the percentage of the firm's cash flow rights acquired, or equivalently, by dividing it by the total equity value. Since the quoted stock price should always reflect all the information available

about the management and the company, the premium paid by a bidder who gains control over the company is likely explained by the private benefits of control: the blockholder, indeed, when making an offer, does not only price in the security value of the company, but also the present value of the stream of corporate benefits that she will be able to divert to her exclusive advantage.

Although some studies provide side evidences of the existence and magnitude of private benefits of control in the banking industry (for example, Massari, Monge and Zanetti (2006) using Italian data, report a "sensibly larger" control premium in the banking sub-sample, compared to other industries), overall the available empirical evidence at international level has been so far scant. However, anecdotal and indirect evidences about banking block transactions support the existence of minority expropriation in banking.

For example, Lopez-de-Silanes and Zamarripa (1995) document an average "control premium" in the privatization of Mexican commercial banks during the early 1990's as high as 53% which appeared to be associated to the extraction of private benefits of control. Meeker and Joy (1983) investigated factors that affect the valuation of controlling shares of US closely held bank stocks, document significant price premia (in the 50%-70%) on controlling shares[2]. This contribution is of particular interest because it recognizes that some conditions must hold in order to justify the documented premia: (i) controlling parties receive "special benefits" that do not pertain to minorities; (ii) each member of the controlling group[3] is able to enjoy these benefits individually; (iii) it is possible to distinguish transactions that transfer the control over the bank's assets. This *ante litteram* paper on control premium recognizes explicitly the potential sources of benefits: it suggests biased hiring policies, outright diversion of banks assets, dividend timing, and more interestingly, the steering of financing policies in the interest of controlling parties (and to the detriment of depositors and minority shareholders) and more subtle benefits. Among the latter, an array of benefits that could accrue to the controlling party: the prestige associated with the controlling position, the information about the customers of the bank and so forth.

Laeven (2001) presents another fertile setting with regard to insider lending: the period of financial reforms experienced in Russia in the 1990s, when bank ownership resulted extremely concentrated and many firms had controlling stakes in Russian banks. This ownership pattern was the outcome of a regulatory policy lacking ownership restrictions, so creating the conditions for a widespread exploitation of insider lending. Belyanova and Rozinsky (1995) show that banks owned by enterprises lent money to their owner in 80% of cases, and Litwac (1995, as

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[1] In order to build an estimate of private benefits, in literature the price premium is usually adjusted by multiplying it by the percentage of the firm's cash flow rights acquired, or equivalently, by dividing it by the total equity value. The latter is more straightforward in that it shows the expropriated amount as a share of the company's net worth.

[2] Banks are more likely to be controlled by large coalitions because of regulation on ownership.

cited in Laeven, 2001)) reports that in some circumstances, the loans extended to insiders accounted even for 90% of the total.

Sapienza (2004) provides interesting evidence about the private benefits that could be extracted by banks' controlling shareholders. In an empirical analysis of Italian banks controlled by local governments, she finds that: (i) government-owned banks charge lower interest rates (by nearly 50 bp), relative to privately-owned ones, to companies similar in terms of creditworthiness; (ii) political patronage is more evident in the funding of southern-Italy and larger enterprises, because these constituencies allow politicians to obtain the maximum political support in return; (iii) the stronger the political party controlling the bank, the lower the interest rate charged.

In addition, some isolated cases of block transactions also point towards the importance of private benefits in the banking industry, although they are not conclusive, since they could still signal the traders' better information or simply a case of overpayment. For instance, the Brazilian government secured an exorbitant control premium of 912% in the privatization of bank Banespa, in 1997 (Capaul, 2003).

From a theoretical point of view, the banking industry could be a fertile ground for the extraction of private benefits of control especially because of its inherent opacity and the low competition. Regarding opacity, Morgan (2002) shows that rating agencies disagree more over banks than they do over non-financial firms, mainly because of the intangibleness of their assets and the low level of transparency of their operations. The level of competition, in addition, supposedly low within the banking industry, should contribute to command higher control premia. In fact, the concern for banking stability behind the industry regulation inevitably reduces competition in the market for financial services, and in turns should increase the expropriation opportunities for large shareholders, as witnessed by Guadalupe and Pérez-González (2006).

Finally, Caprio et al (2007) analyze 244 banks across 44 countries finding that banks generally have a controlling shareholder which usually is a family or the State. The authors show that stronger legal protection of minority shareholders is associated with more highly valued banks, and they interpret this result as an indication that expropriation of minority shareholders of banks is important internationally.

3. Bank Governance: Shareholder Protection Vs Industry Regulation

If banks are prone to the extraction of private benefits by controlling parties, then what works in protecting banks' minority shareholders? Research suggests that strong legal protection of small investors increases bank valuations (Caprio et al 2007), because investors pay more for equity when legal institutions effectively protect their rights. Therefore, it appears that investor protection laws may provide a tool for small shareholders to stop large shareholders from expropriating bank resources.

In the case of banks, however, not everyone agrees that shareholder protection laws will effectively thwart expropriation. Many view banks as extraordinarily complex and opaque (Morgan, 2003). Thus, investor protection laws alone may not provide a sufficiently powerful corporate governance mechanism to small shareholders. Put differently, even with strong investor protection laws, small stakeholders may lack the means to monitor and govern complex banks. Furthermore, bank regulations may be sufficiently pervasive that they render shareholder protection laws superfluous, or bank regulations may supersede standard investor protection laws. Thus, the impact of investor protection laws on banks may differ from their impact on non-bank corporations.

For example, the specific bank-industry supervision and regulation may arise in part to stop bank insiders from expropriating bank resources (Caprio and Levine 2002). Thus, effective official oversight by banking authorities and industry-specific regulation may increase investor confidence regarding expropriation and boost market valuations. Of course, bank supervision and regulation arise for reasons other than reducing expropriation, such as the reduction of excessive risk-taking by bank owners and the protection of depositors. In this context, supervision and regulation could actually reduce bank valuations by forcing bank risk below what equity holders would choose in the presence of government insurance (Laeven and Levine, 2009).

Still, form a theoretical point of view, the question remains on whether industry specific supervision and regulation is enough to thwart expropriation of bank resources by the controlling shareholders, or, on the contrary, the legal protection mechanisms for minority shareholders (which apply to all companies) play a role as well.

3.1 The Role of Legal Origins

The body of research referred to as "law and finance" (La Porta et al., 1997, 1998, 2000) has demonstrated a crucial link between the origin of commercial codes and the degree of investor - both shareholders and creditors - protection. According to this view, legal families (namely: common law, socialist countries, and - among the civil law families - the French, the German and the Scandinavian ones) can explain the cross country variation of control premium via the different degree of protection of property rights. The diverse degree of investor protection, indeed, affects control premium according to the legal family to which the target's country belongs. So, according to La Porta et al. (1998), one can group countries by legal origin, and order legal families from the least

protective of investor rights, namely the French civil law - which in turns comes from the ancient roman legislative framework - up to common law, which is reckoned as the law family that best protects shareholders and creditors. In the middle of them, German and Scandinavian countries hold an intermediate stance towards investors. Furthermore, this authoritative stream of research points out that even the level of law enforcement differs across legal families: this time, Scandinavian and German legal traditions fare better than other families, while the French family ranks again as the worst one. These four legal families can be further integrated by considering the socialist block, as Dyck and Zingales do (2004); this group of countries, though, has been excluded by La Porta et al. (1997, 1998, 2000), because of the rapid pace of change of its legal framework during the transition out of socialism.

Furthermore, Shleifer and Vishny (1986, 1997) illustrate an interesting mechanism that somehow copes with the inadequacy of corporate governance rules in the least investor-protective countries: they evidence higher ownership concentration in such environments, which should guarantee the adequate power to monitor management, as a substitute of legal protection. In other terms, corporate governance would adapt to the quality of legal protection; as a result, the authors maintain that French companies show higher degree of ownership concentration.

Importantly, empirical evidence lends support to the thesis at hand. Dyck and Zingales (2004) maintain that French and soviet law frameworks drive the highest average control premia, followed by German civil law and common law countries. Scandinavian countries show the lowest control premia. Nenova (2003) presents further evidence consistent with the "law and finance" view: in particular, her study finds that the ranking of the average estimate of private benefits of control is similar to the one shown in Dyck and Zingales study. Nenova explains these results mentioning the quality of investment protection and the extent of law enforcement.

3.2 The Role of Bank-specific Regulation

There are very few aspects of banking left free of industry-specific regulation. According to some scholars, due to the extreme complexity and opacity of the banking industry and its regulation, shareholder protection is less powerful for banks than it is for non-financial corporations. In other words, the inherent opacity of banks (whose assets are typically intangible) and the extension of their regulation - that even supersedes standard corporate governance rules - partially dampens the effectiveness of shareholders protection.

As previous studies (Barth, Caprio and Ross Levine, 2000) pointed out, a first-hand analysis of the regulatory environment of this sophisticated industry across a large sample of countries is far from being a

smooth ride. Indeed, much of the relevant information is not publicly available from official sources. So, our analysis has benefited from a comprehensive survey (Barth, Caprio and Levine, 2000, 2001 and 2006; Barth et al., 2002) of regulation and supervision models in the banking industry, designed by researchers at the World Bank and at the Office of the Comptroller of the Currency. Data included are mainly from the period 1998-1999, and so they match the central period of our analysis of control premia. The first issue that deserves consideration is that banking regulation shows wide cross-country differences, regardless of the country's stage of development, as witnessed by data on banking system assets relative to GDP (or to total financial assets).

While the traditional taxonomy distinguishes in a clear-cut way two extreme banking models, the German universal bank[4] and the US-based commercial bank (Barth, Caprio, Levine, 2000), the real world is far more complex and the variation in banking systems involves more variables than simply the ability to engage in various financial activities. In particular, the characteristics along which banking regulation differs in a cross-country perspective are manifold (Barth, Caprio and Levine, 2001): entry into banking; bank ownership; capital requirements; activities allowed; external auditing requirements; internal management/organizational requirement; liquidity and diversification requirements; depositor (savings) protection schemes; provisioning requirements; accounting/information disclosure requirements; and supervision.

We will test the impact of all these features on the extraction of private benefits of control in banking. Below we briefly sketch the most relevant of these characteristics.

3.3 Entry conditions in the banking industry

While the public interest view suggests that restrictions on entry into banking are aimed at making the industry more stable, it is also true that putting limits on entry increases the structural profitability of the industry to the advantage of bankers, as explained by the private interest view (Barth, Caprio, Levine, 2006). Even more importantly, the association between the degree of restriction on competition and the financial development has been demonstrated (Guiso, Sapienza and Zingales, 2004) in the context of the Italian banking reform of 1936.

It is essential to consider the degree of openness of the banking industry, both with respect to

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[4] German banks, unlike US ones, are allowed to engage in a wide area of financial activities, ranging from securities, insurance to real estate businesses. Nevertheless, the differences between these two models have narrowed since the change in banks' legislation passed in the US in 1999. In that year, the enactment of the Gramm-Leach-Bliley Act gave American banks greater access to securities and insurance businesses.

foreigners and to domestic investors: in fact, it plausibly affects the level of competition in the market of financial services and in the market for corporate control; hence the price a controlling stake is expected to fetch.

As concerns entry requirements, the relevant data usually (Barth, Caprio and Levine, 2000, 2001 and 2006; Barth et al., 2002) include three variables: "entry into banking requirements", "limitation on foreign entry/ownership of domestic banks" and, finally, "denial of entry applications". Regarding the former, most governments screen entrants to guarantee that they are "fit and proper"; only few countries do not impose requirements to grant entry authorizations. These requirements typically concern the submission to the banking authority of: draft by-laws, organizational chart, 3-year financial projections, information on main shareholders, background of directors and managers, information about sources of capital (Barth, Caprio and Levine, 2006), and others.

As for entry restrictions imposed to foreign banks, regulations may include the prohibition of entering through acquisitions, or through the establishment of subsidiaries or branches.

Finally, the third variable simply measures the ratio of entry applications rejected by the authority; this variable could shed light on countries which do no set strict entry conditions, but still reject most applications. Barth, Caprio and Levine (2006) documented a negative association between the income level of a country and entry denials to both domestic and foreign applicants.

3.4 The range of allowed activities

As already mentioned, banks can be required to concentrate on the credit business, or be authorized to operate in a wider area, which encompasses: securities activities (underwriting, brokerage and dealing); insurance activities; real estate (trading, development and management of properties).

The debate over whether to extend banking activities has been heated ten years ago and it still conveys significant consequences: while advocates of imposing restrictions on banking activities underline conflicts of interest, moral hazard, the difficulties of surveillance and the reduction of competition caused by an excessive extension of activities, the sponsors of universal banking argue that diversified banks are more stable and efficient. Some empirical studies have found a link between regulatory restrictions on securities activities and banking crises (Barth, Caprio and Levine, 2000), while showing that less restrictions on banking reduce the cost of capital.

3.5 Bank ownership

Limits on bank ownership affect competition in the market for banks' control. National regulations differ

significantly across the world; however more constraints are set on the acquisition of stakes by banks in non-financial firms than in the opposite case. China is again the country that shows the tightest legislation, even on bank ownership, prohibiting any share participation in non-financial firms. Germany allows a relatively high degree of ownership connections, either way, while Japan and United States rank among the countries that more heavily restrict these strategic opportunities. The United Kingdom unlike the US regulates ownership in a more flexible way.

Some scholars have specifically investigated the diffusion and consequences of government ownership of banks (Gerschenkron, 1962; Shleifer and Vishny, 1994; Sapienza, 2002; La Porta, Lopez-de-Silanes and Shleifer, 2002). La Porta, Lopez-de-Silanes and Shleifer (2002) indicate that stronger government control of banks is associated with less developed financial markets and has adverse, if weak, effects on subsequent growth.

Subsequent analyses (Sapienza, 2002; Lopez-de-Silanes and Shleifer, 2002) have supported a "political" interpretation of government intervention in banks: they argue that politicians control banks in order to finance "politically desirable" investments, rather than value-maximizing ones, in order to perpetuate their influence. In particular, giving top public servants the opportunity to channel banks' resources to connected parties could result in bribes and in corporatization.

4. Data, Methodology and Results

Our test of the private benefits of control in the banking industry is based on the methodology proposed by Barclay and Holderness (1989) as subsequently refined by Dyck and Zingales (2004). To identify transactions that convey control rights we use the Thomson One Banker international mergers and acquisitions database. In order to identify the candidates for control sales, we focused on the banking industry (excluding other financial institutions, such as insurance companies, asset managers, etc.). We then restricted our attention to completed purchases of blocks equal to at least 5%[5] in publicly listed banks, for which a reported transaction value (or price per share) was available from 1989 to 2007.

We refined our sample by using additional qualitative data in order to screen out transactions that did not involve a real transfer of control, such as self-tenders, acquisition of remaining interests, repurchases, share transfers among subsidiaries of a common parent company, etc. This was based on multiple news stories for every transaction in the Factiva and BankScope databases. As in Dyck and Zingales (2004), this process on the one side

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[5] The 5% threshold is used for example by Caprio et al. (2007) for their analysis of bank valuation.

corroborates our confidence in the dataset, but, on the other side, involves a certain degree of discretion in determining the final inclusions.

Finally, to ensure that market prices were available, we restricted ourselves to banks reported in the Datastream database. To further ensure that the difference between the control price and the market price is not due to legal requirements, we excluded all instances where the controlling block was purchased as part of a public offer. Furthermore, as in both Barclay and Holderness (1989) and Dyck and Zingales (2004), we eliminated all transactions with ex-ante or ex-post evidence of a tender offer for the remaining shares in the six months following the announcements.

The block premia are computed as the difference between the price per share paid for the control block and the market price two days after the announcement of the transaction, divided by the market price and scaled by the proportion of cash flow rights controlled by the purchased stake.

After imposing our criteria and eliminating an outlier with a 220% premium, we are left with 157 observations from 40 countries (block premia are computed by country in which the acquired bank is located). Overall, as shown in Table 1, the preliminary evidence from block transactions in the banking industry confirms the law and finance theory, which maintains that French civil law countries are both the least protective of investor rights and those with the lowest enforcement of law.

Table 1. Block Premia by Legal Origin

Legal origin	Number of observations	Mean	Median	Standard Deviation	Min	Max
Common law	44	2.4%	0.2%	9.9%	-9.4%	51.8%
French Civil Law	54	5.1%	1.0%	11.8%	-1.8%	67.7%
German Civil Law	35	1.4%	-0.1%	4.9%	-5.4%	22.1%
Scandinavian Civil Law	5	-0.8%	-0.5%	0.9%	-2.0%	0.1%
Socialist	19	4.3%	1.0%	11.8%	-15.4%	38.9%

In Table2 we present the variables that we are going to test in order to assess the determinants of private benefits of control in our dataset.

Table 2. Description of variables Description of variables

Variable	Description
Block premia as a percentage of the value of equity	The block premia is computed taking the difference between the price per share paid for the control block and the exchange price two the days after the announcement of the control transaction, divided by the exchange price two days after the announcement and multiplied by the proportion of cash flow rights represented in the controlling block.
Foreign acquirer	A dummy variable that takes the value 1 if the acquirer is from a different country than the target.
Percentage of shares acquired	Percentage of shares acquired in the transaction.
Legal origin	Identifies the legal origin of the company law or commercial code of each country. Categories include English common law, French commercial code, German commercial code, Scandinavian civil law and former Soviet bloc countries (La Porta et al., 1997,1998, 1999).
Risk of contract repudiation	International Country Risk's assessment of the "risk of a months modification in a contract taking the form of repudiation, postponement or scaling down" due to "budget cutbacks, indigenization pressure, a change in government or a change in government economic and social priorities." Average of the of April and October of the monthly index between 1982 and 1995. Scale from 0 to 10, with lower scores for higher risks (La Porta et al., 1998).
Efficiency of judicial system	Assessment of the "efficiency and integrity of the legal environment as it affects business, particularly foreign firms'' produced by the country-risk rating agency Business Corporation International Corporation. It "may be taken to represent investors' assessments of conditions in the country in question". Average between 1980-1983. Scale from 0 to 10, with lower scores lower efficiency levels (La Porta et al., 1998).

Variable	Description
Rule of law	Assessment of the law and order tradition in the country produced by the country-risk rating agency International Country Risk (ICR). Average of the months of April and October of the monthly index between 1982 and 1995. Scale from 0 to 10, with lower scores for less tradition for law and order (La Porta et al., 1998).
Corruption	ICR'S assessment of the corruption in government. Lower scores to indicate "high government officials are likely to demand special payments" and "illegal payments are generally expected throughout lower levels of government" in the form of "bribes connected with import and export licenses, exchange controls, tax assessment, policy protection or loans". Average of the months of April and October of the monthly index between 1982 and 1995. Scale from 0 to 10, with lower scores for higher levels of corruption (La Porta et al., 1998).
Risk of expropriation	ICR'S assessment of the risk of "outright confiscation" or "forced nationalization". Average of the months of April and October of the monthly index between 1982 and 1995. Scale from 0 to 10, with lower scores for higher risks (La Porta et al., 1998).
Antidirector Rights	"An index aggregating shareholder rights formed by adding 1 when(1) the country allows shareholders to mail their proxy vote to the firm, (2) shareholders are not required to deposit their shares prior to the general shareholder's meeting, (3) cumulative voting or proportional representation of minorities in the board of directors is allowed, (4) an oppressed minorities mechanism is in place, (5) the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholder's meeting is less than or equal to 10 percent (the sample median), or (6) shareholders have preemptive rights that can be waived only by a shareholders' vote. The index ranges from zero to six" (La Porta et al., 1998).
Creditor rights	Index of secured creditor rights during restructuring or liquidation. Ranges from 0 to 4, with higher values indicating better creditor right protection (La Porta et al., 1998).
Entry into banking requirements	Whether various types of legal submissions are required to obtain a banking license. Higher values indicate greater stringency (Barth et al. 2005).
Overall capital stringency	Whether the capital requirement reflects certain risk elements and deducts certain market value losses from capital before minimum capital adequacy is determined. Higher values indicate greater stringency (Barth et al. 2005).
Official supervisory power	Whether the supervisory authorities have the authority to take specific actions to prevent and correct problems, higher values indicating greater power (Barth et al. 2005)
Overall activities restrictiveness	This index measures the extent to xhich banks may engage in securities, insurance and real estate activities. Higher values indicate higher restrictiveness (Barth et al. 2005).

We use OLS regressions to find the determinants of block premia around the world. In Table 3 we use country fixed effects in order to control for unobserved differences between counties. In column (1) we find that foreign buyers pay 6 percent more then local buyers, this value is statistically significant at the 1 percent level. In these transactions the bargaining power of the seller is bigger because foreign acquirers face more competition (if they are involved it implies the transaction is open to foreign buyers and thus there is a larger pool of potential acquirers). We also find strong explanatory power of the interaction between the foreign acquirer dummy and a measure of the difference in legal protection between the two countries.

Table 3. Estimating Block Premia: Country Fixed Effects

Independent variables	Dependent variable: Block Premium	
	(1)	(2)
Interaction of relative strength of anti-director rights (home-target nation) and foreign acquirer	-0.035 (0.010)***	-0.035 (0.009)***
Foreign acquirer	0.062 (0.023)***	0.068 (0.021)***
Percentage of shares acquired		0.296 (0.065)***
Country fixed effects		
Argentina	-0.044 (0.086)	-0.139 (0.081)*
Australia	-0.027 (0.030)	-0.054 (0.028)*
Austria	-0.110 (0.094)	-0.142 (0.086)
Belgium	0.011 (0.060)	-0.010 (0.055)
Chile	0.098 (0.050)	0.022 (0.049)
China	-0.024 (0.083)	-0.054 (0.076)
Cyprus	0.001 (0.083)	-0.023 (0.076)
Denmark	-0.047 (0.086)	-0.100 (0.079)
Finland	-0.005 (0.083)	-0.029 (0.076)
France	0.021 (0.059)	-0.020 (0.054)
Germany	0.002 (0.045)	-0.069 (0.044)
Greece	-0.026 (0.043)	-0.063 (0.040)
Hong Kong	-0.018 (0.059)	-0.058 (0.054)
India	0.063 (0.037)*	0.001 (0.037)
Indonesia	0.053 (0.040)	-0.007 (0.039)
Italy	0.018 (0.032)	-0.025 (0.031)
Japan	-0.008 (0.020)	-0.086 (0.025)***
Netherlands	0.168 (0.090)*	-0.116 (0.103)
Norway	-0.008 (0.059)	-0.038 (0.054)
Philippines	0.024 (0.025)	-0.027 (0.025)
Portougal	-0.003 (0.059)	-0.022 (0.054)
Singapore	-0.031 (0.086)	-0.061 (0.078)
South Africa	0.004 (0.059)	-0.027 (0.054)
South Korea	0.055 (0.032)*	-0.003 (0.032)
Spain	0.043 (0.031)	0.013 (0.029)
Sri Lanka	-0.094	-0.183

Independent variables	Dependent variable: Block Premium	
	(1)	(2)
	(0.083)	(0.078)**
Switzerland	0.014	-0.024
	(0.083)	(0.076)
Taiwan	0.015	-0.031
	(0.050)	(0.047)
Thailand	-0.006	-0.066
	(0.040)	(0.039)*
Turkey	0.396	0.322
	(0.066)***	(0.062)***
United Kingdom	0.029	-0.017
	(0.042)	(0.039)
United States	0.013	-0.018
	(0.026)	(0.025)
Venezuela	0.082	0.003
	(0.067)	(0.064)
Observations	131	131
R-squared	0.52	0.60

Standard errors in parentheses *significant at 10% level; ** significant at 5% level; *** significant at 1% level

This measure is the difference between the La Porta et al. (1998) measure of antidirector rights for the country of the acquiring company and the one for the country of the acquired company. Companies coming from countries with better investor protection pay, on average, 3.5% less for control. Unfortunately, the introduction of this variable reduce our original sample from 157 to 131 transactions, since all the transactions of the countries for which the antidirector rights index is not calculated are eliminated. These results are valid also when we control for the percentages of the shares acquired (column 3). This variable is significant at 1% level: the higher the percentage of shares acquired, the higher the premium paid.

Table 4 presents the correlation matrix of the institutional variables (variable definitions can be found in Table 2).

Table 4. Correlation matrix institutional variables

	Risk of contract repudiation	Risk of expropriation	Corruption	Rule of law	Efficiency of judicial system	Creditor rights	Anti-director rights
Risk of contract repudiation	1						
Risk of expropriation	0.94	1					
Corruption	0.84	0.83	1				
Rule of law	0.89	0.91	0.89	1			
Efficiency of judicial system	0.69	0.73	0.83	0.77	1		
Creditor rights	0.13	0.15	-0.05	-0.09	-0.03	1	
Anti-director rights	0.07	0.17	0.27	0.16	0.48	0.05	1

In Table 5 the dependent variable is the block premia as a percent of firm equity. The explanatory variables include all the variables introduced in column (2) of Table 2 except for the country fixed effects. Instead of the country fixed effects, we introduce one at a time several institutional variables: (1) Risk of contract repudiation index; (2) Risk of expropriation index; (3) Corruption index; (4) Rule of law index; (5) Efficiency of judicial system index; (6) Creditor rights index; (7) Antidirector rights index. More complete descriptions of variables are provided in Table 2. Standard errors, which are reported in parentheses, are robust and clustered by country.

Table 5. Institutional determinants of private benefits of control - univariate analysis

Independent variables	Dependent variable: Block Premium						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Risk of contract repudiation	-0.009 (0.005)						
Risk of expropriation		-0.005 (0.005)					
Corruption			-0.006 (0.003)**				
Rule of law				-0.005 (0.003)*			
Efficiency of jud. system					-0.007 (0.004)*		
Creditor rights						0.001 (0.005)	
Antidirector rights							0.004 (0.005)
Variables controlled for:							
Foreign acquirer	Y	Y	Y	Y	Y	Y	Y
Percent shares acquired	Y	Y	Y	Y	Y	Y	Y
Interaction of relative strength of anti-director rights (home-target nation) and foreign acquirer	Y	Y	Y	Y	Y	Y	Y
Constant	Y	Y	Y	Y	Y	Y	Y
Observations	126	129	129	128	129	124	129
R-squared	0.28	0.27	0.28	0.28	0.29	0.26	0.27

Robust standard errors in parentheses
* significant at 10% level; ** significant at 5% level; *** significant at 1% level

The correlation matrix between the institutional variables shows that they are very highly correlated except for the antidirector and creditor rights indexes. Introducing these variables in a multivariate regression would cause severe multicollinearity. The greater the correlation between the regressors, the harder is to discriminate between the explanatory power of single regressors. For this reason, in Table 6, we introduce one at a time the institutional variables controlling for the significant variables included in Table 3. We find that a lower corruption, a stronger rule of law and a higher efficiency of the judicial system are associated with lower private benefits of control (the last two variables are significant at 10 per cent and the first at 5 per cent). On the other hand, we do not find any explanatory power of both the antidirector and creditor rights indexes.

Table 6. Legal Origin

Independent variables	Dependent variable: Block Premium	
	Coefficient	Std. error
German Civil Law	-0.048	(0.021)**
Common Law	-0.022	(0.016)
Scandinavian Civil Law	-0.042	(0.023)*
Soviet origin	-0.039	(0.010)***
Variables controlled for:		
Foreign acquirer	Y	
Percentage of shares acquired	Y	
Interaction of relative strength of anti-director rights (home-target nation) and foreign acquirer	Y	
Constant	Y	
Observations	131	
R-squared		0.31

Robust standard errors in parentheses
* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Regression analysis confirm the results of the descriptive statistics: French civil law countries are characterized by the highest level of private benefits of control. When controlling for other explanatory variables, the difference between French civil law and English common law countries is no longer statistically significant. German and Scandinavian common law countries are associated with less private benefits of control; this difference is significant respectively at 5% and 10%. Surprisingly enough, also Socialist origin countries are characterized by lower block premia compared to French origin countries.

Table 7 presents the correlation matrix of the regulatory and supervisory variables (variable definitions can be found in Table 2).

Table 7. Correlation matrix regulatory and supervisory variables

	Official supervisory power	Overall activities restrictiveness	Entry into banking requirements	Overall activities restrictiveness
Official supervisory power	1			
Overall capital stringency	0.09	1		
Entry into banking requirements	0.1	0.2	1	
Overall activities restrictiveness	0.11	-0.15	-0.21	1

Finally, in Table 8 we introduce four regulatory and supervisory variables: Official supervisory power, Overall activities restrictiveness, Entry into banking requirements and Overall activities restrictiveness (complete descriptions of variables are provided in Table 8). Standard errors, which are reported in parentheses, are robust and clustered by country.

Table 8. Regulatory and supervisory variables- Multivariate analysis

Dependent variable: Block Premium

Independent variables	Coefficient	Standard error
Official supervisory power	0.004	(0.006)
Overall activities restrictiveness	-0.008	(0.005)
Overall capital stringency	-0.003	(0.008)
Entry into banking requirements	-0.014	(0.008)*
Variables controlled for:		
Foreign acquirer	Y	
Percentage of shares acquired	Y	
Interaction of relative strength of anti-director rights (home-target nation) and foreign acquirer	Y	
Constant	Y	
Observations	113	
R-squared	0.29	

Robust standard errors in parentheses
* significant at 10% level; ** significant at 5% level; *** significant at 1% level

In Tables 7 and 8 we investigate the role of regulation and supervision in explaining the cross country variation of the private benefits of control in the banking industry. Since the correlations among regulatory and supervisory variables are low, we use all of them jointly, controlling for other variables introduced in Table 2. We can disentangle the effects of different aspects of regulation and supervision. We observe that only the stringency in the legal submissions required to obtain a banking license is associated with block premia. In particular, higher requirements, and thus more attentive ex-ante screening by authority, are associated with a -1.4% block premia, holding other variables constant, this is significant at 10%. We find that capital stringency, official supervision and activities restrictiveness are

not significantly associated with private benefits of control.

The contribution to literature of our paper is twofold. On the one hand, this is the first study providing a structured estimate of private benefits of control internationally in the banking industry, supporting the views that expropriation of minority shareholders in banking is important internationally. On the other hand, we provide evidence that regulation – except for the regulation on entry - cannot restrain minority shareholders expropriation in the industry.

Finally, in light of the ongoing debate about the relationship between corporate governance and the reform of the international banking system, as private benefits of control are a key feature of the ownership structure, and ownership structures influence in turn the risk taking behaviours of banks (Leaven Levine, 2009), our results imply that the enhancement of shareholders protection may impact the way bank regulation shapes the risk taking at micro- and macro-level.

5. Conclusions

Although a growing body of work examines the impact of shareholder protection laws on nonfinancial corporations, the evidence about banks is still scant. Some argue that banks are exceptionally complex and opaque so that ownership concentration and investor protection laws will not influence the governance of banks. Others hold that the array of bank supervisory and regulatory policies weakens standard corporate governance mechanisms in banks (Caprio et al., 2006). We test these hypotheses estimating the private benefits of control in a sample of control-transfer transactions of banks in 40 countries.

We are able to detect the existence of an average 3.3% (as percentage of equity) block transaction premium, ranging from -15% to 67%. Consistent with the predictions of the legal origin theory, we found that transactions related to banks operating in legal systems rooted in French Civil Code tradition have higher transaction premiums than banks operating in countries with different legal origins.

We then assess different theories about shareholder protection laws, and bank supervisory and regulatory policies. Given this estimation of private benefits of control, we examine their legal and regulatory determinants. We find evidence that bank regulations and supervisory practices have impact on the expropriation of minority shareholders. In particular, the regulation on entry plays a role in curbing private benefits of control in the banking industry.

These results are consistent with the view that expropriation of minority shareholders is important internationally even for banks. Although we find some evidence that industry specific regulation is associated with lower private benefits of control

extraction, still the overall case for a stronger legal protection for minority shareholders remains intact.

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