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## Ilduara Busta

# **Corporate Governance in Banking**

A European Study

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Copenhagen, June 1st, 2008

Ilduara Busta

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## **Preface**

This thesis is the product of my PhD studies at the Department of International Economics and Management at Copenhagen Business School and consists of four essays - one literature review and three empirical studies - on different aspects of the corporate governance of banks. The four essays are self-contained and can be read independently.

#### **Motivation**

The last ten years have seen the emergence of a new field within the corporate governance literature dedicated to the corporate governance of banks, which has especially focused on US banks. This thesis contributes to this stream of research by studying diverse features of the corporate governance of banks in the European case.

There are two main reasons why we should study the corporate governance of banks: its relevance and its possible specificity. First, banks are important. While efficient banks can stimulate the prosperity and growth of the whole economy, banking crises are able to destabilize the economic and political situation of nations. This central role that banks play in any economy makes the study of their corporate governance a fundamental issue, not only from a private, but also from a public viewpoint.

Second, corporate governance in banking might be different than in other industries. It has been argued that one reason behind the difficulty of identifying the effect of corporate governance on performance may be the existence of different optimal structures across industries (Demsetz and Lehn, 1985; Romano, 1996), which would be even more patent in the presence of regulation (Demsetz and Lehn, 1985). In this sense,

limiting the study to one specific industry would hopefully facilitate the identification of relationships between the corporate governance mechanisms and financial performance; at the same time that it would help us to uncover possible different patterns in relation to other sectors. The recent studies on US banks are in line with this apparent industry-specificity of corporate governance, at least, in what concerns the banking sector (Adams and Mehran, 2003; Macey and O'Hara, 2003), but their results are far from conclusive.

The integration process experienced by the European banking system over the last fifteen years has been accompanied by increased international competition and the need of structural adjustments in the sector. This situation, which has added extra pressure on banks' profitability, constitutes an interesting scenario to examine the determinants of success from a corporate governance viewpoint. This thesis aims to shed some light on the understanding of the specific mechanisms of corporate governance in banking, and in particular, on the characteristics of the board of directors and the ownership structure of banks that may help them to improve their performance by focusing on banks from a range of Western European countries.

Besides the possible influence of the industry, the literature has also suggested the existence of different optimal mechanisms across governance systems (Shleifer and Vishny, 1997; Thomsen et al., 2006; Goergen, 2007). In particular, the tradition initiated by La Porta et al. (LLSV, 1998) places the origin of the country's legal system at the core of the discussion, highlighting its role in shaping the corporate governance model prevalent in a certain country. In *Law and Finance* (LLSV, 1998), they show that legal systems differ across countries according to the origin of their laws [common law countries versus civil law countries (composed by German, Scandinavian and French families)] and how these dissimilarities entail different levels of legal protection granted to investors, with the investors in common law countries enjoying the highest protection

of their rights, as opposed to investors in countries of French legal tradition, where the degree of protection is found to be lowest. Additional support to the superiority of common law countries to protect investors in remarkable contrast to the French civil law nations is provided in a more recent piece by the authors (Djankov et al, 2008), where they revise and broaden the concept of investor protection used in LLSV (1998) by measuring the legal protection of minority investors, not only against the expropriation by the firm's managers, but also against self-dealing by controlling shareholders.

Related to the publication of *Law and Finance* (LLSV, 1998), a number of studies appeared that find evidence of the positive relation between a high degree of investor protection and the use of equity finance (La Porta et al. (LLSV), 1997), lower ownership concentration (LLSV, 1999; Himmelberg et al., 2002), lower government ownership and control of banks (LLS, 2002), higher dividends payouts when firms have poor reinvestment opportunities (LLSV, 2000), and higher Tobin's Q ratios (LLSV, 2002). Moreover, it seems that in countries with less legal protection of shareholder rights a higher concentration of ownership presents a stronger positive relation to firm performance (Lins, 2003) and the existence of good corporate governance practices would have a more significant positive impact on the firm's Tobin's Q (Durnev and Kim, 2002).

Furthermore, the company law present in the different countries is also responsible, at least to some extent, of the board of directors' design and functioning. For example, the role directors have might vary across legal systems (Allen and Gale, 2001; Wymeersch, 1998). While in countries of English origin law managers are explicitly required to act in the interest of shareholders, in the civil law tradition (prevalent in Continental Europe) the fiduciary duties of management are to the company itself. On the other hand, if outside directors in the Anglo-Saxon countries are often invited to join the

board by the firm's management, thus typically owing their allegiance to the CEO (Wymeersch, 1998; Ruigrok et al., 2006); in civil law countries, outside directors are usually chosen by shareholders to actively represent them in the board (Wymeersch, 1998). Further differences exist across systems concerning the participation of employee representatives, its structure in one or two tiers, or the existence of government representation on boards (Allen and Gale, 2001). Having these divergences in mind, it would not be surprising that changes in the level of board independence had different effects across legal systems.

In a similar manner, international ownership patterns have also been directly affected by the countries' legal institutions through the differing restrictions on the holding of shares by financial and non-financial corporations put in place (Allen and Gale, 2001).

Following these lines of thought, an additional advantage of making a comparative study of corporate governance across Europe is given by the possibility to investigate the influence the institutional environment might have in the corporate governance dynamics, both as compared to US studies and between the European countries themselves.

#### Structure of the thesis

As we will see, the four essays included in this thesis touch upon closely related themes. After surveying the literature in search of explanations to the corporate governance problem of banks in Essay 1, the three following essays provide new empirical evidence on the existence of national patterns in the governance model of banks across Europe (Essay 2), and investigate the interaction between two of the most important governance instruments (the board of directors in Essay 3 and blockholder

ownership in Essay 4) and the financial performance of banks, while taking into account the way institutional factors might moderate this relationship.

In order to do that, the three essays make use of different databases on a number of publicly-listed banks in up to 17 Western European countries (built by the author using information from Worldscope, Bloomberg Statistics and the Spencer Stuart Board Indexes) and employ different econometric methodologies.

The first essay (Essay 1) reviews the existing literature with the objective of understanding the particular characteristics of the corporate governance of banks and its role for good bank performance. After explaining the diverse features that make banks special and might affect their corporate governance, as mentioned in the literature, this paper focuses on what previous research tells us about the functioning of the corporate governance mechanisms in banks, to what extent they are specific to this industry, and in which way they have been shown to influence performance. As a result, we can see that, in the case of banks, the presence of specific regulation and the nature of its business have been argued to have an influence on their corporate governance (Macey and O'Hara, 2003; Levine, 2003; Caprio and Levine, 2002.). In this sense, specific banking regulation and supervision by the authorities, the existence of deposit insurance, regulatory restrictions to the holdings of shares, legal barriers to takeovers, requirements on the presence of government representatives on boards or the typical highly leveraged condition of banks have been discussed as some of the possible reasons behind the different governance structures observed (e.g. lower ownership concentration (Faccio and Lang, 2002), fewer hostile takeovers (Prowse, 1995), larger and more independent boards (Adams and Mehran, 2003) or lower managerial shareholdings (Murphy, 1999; John and Qian, 2003)).

But the question remains open as to whether the functioning of these corporate governance mechanisms and their relation to performance is fundamentally different in banking compared to non-banking firms, as well as what would be the specific causes behind the potential different behaviors. While more research is needed on the underlying reasons, the initial findings on this matter appear to confirm the existence of some particularities in the relationship to performance by showing the positive effects of larger boards (Adams and Mehran, 2005), more concentrated ownership structures (Prowse, 1995; Caprio et al., 2003) and certain levels of managerial shareholdings (De Young et al., 2001; Griffith et al., 2003).

Earlier versions of this paper (under different titles) have been presented at the Academy of International Business (AIB) Annual Meeting 2004 held in Stockholm (Sweden), the European School of New Institutional Economics (ESNIE) 2004 held in Corsica (France) and as an internal seminar at the Department of International Economics and Management (Copenhagen Business School) also in 2004.

A number of studies have shown important international differences in the corporate governance of non-financial firms (Shleifer and Vishny, 1997; Denis and McConnell, 2003). Furthermore, the conclusions derived from the literature review in Essay 1 seem to indicate that diverse features, such as regulation, supervision, capital structure, risk, fiduciary relationships or the existence of deposit insurance, make banking firms special and have an influence on their corporate governance making it different with respect to other industries. The second essay (Essay 2) uses new data on boards of directors to make a cross- country study of different board and ownership variables for a sample of publicly-listed banks in Western Europe. After confirming the existence of national patterns in the board and ownership structures, it discusses the role of the legal system in explaining the observed international differences, both in the level of the

variables and in the way they relate to performance. To do this, it uses the legal families (as in LLSV, 1998) as a way to proxy for the different legal systems found in Western Europe and shows how by grouping the countries according to the tradition of their company law we account for an important share of the variation of corporate governance structures, as well as we indirectly measure the possible influence of the degree of investor protection (as shown in LLSV, 1998; Djankov et al., 2008) and other legal issues (e.g. the fiduciary duties of directors) related to the legal origin.

The results of the preliminary regression analysis suggest that the different governance mechanisms might work differently in different institutional environments, pointing towards board independence and board size having negative and positive effects, respectively, on the performance of banks belonging to the English legal family; whereas the coefficients for these two variables would be of opposite sign (even if not always significant) in civil law countries. Variations in the level of investor protection granted in each legal system, together with the different roles played by board directors across countries are discussed as two possible reasons behind our findings. Finally, different robustness checks are carried out to confirm the validity of the results.

Earlier versions of this second essay (under different titles) have been presented at the European International Business Academy (EIBA) Annual Conference 2005 held in Oslo (Norway), the European Financial Management Association (EFMA) Meetings 2006 held in Madrid (Spain), the European Association of Law and Economics (EALE) 2006 held as well in Madrid (Spain), the PhD course in Corporate Governance by Professor Randall Morck at the Aarhus School of Business (Denmark) in 2006, and as an internal seminar at the Department of International Economics and Management (Copenhagen Business School) also in 2006.

Building on this idea that the existence of different optimal governance structures across industries and institutional environments can be the reason for the general lack of significant results in the previous research on the relationship between the size and independence of the board of directors and financial performance, the objective of the third essay (Essay 3) is to make clearer the nature of this relationship by focusing on a single industry: banking, and allowing for separated behaviours in the different institutional settings. After using two different datasets: a panel including 69 listed banks in France, Germany, Italy, Spain and the United Kingdom, and a broader cross-section containing banks from 16 countries, the results show that banks with a higher presence of non-executives in their boards perform better in Continental Europe; while the opposite is the case in the Anglo-Saxon countries. The observed differing magnitudes between the coefficients obtained for the cross-section and panel data analyses are explained in the light of distinct long and short run effects, respectively, of board independence on performance.

We initially discuss two theories to interpret these results. First, the positive effect of management-friendly boards in the UK and Ireland (either as overall negative or just as neutralizing the negative impact caused by insiders being less motivated to challenge top management's decisions) could be the consequence of the superior advice and monitoring they are able to provide thanks to being better informed by the CEO (Adams and Ferreira, 2007). Second, since we cannot eliminate the possibility that causality may run in the opposite direction, poor bank performance could be the reason why more independent directors are added to the board (Hermalin and Weisbach, 1998).

However, none of these theories give us an explanation to why these mechanisms are not present, or at least not prevalent, in Continental Europe, where enhancing board independence seems to lead to increased performance. Therefore, after looking at the

main institutional differences between them that specifically deal with board design and could influence the effect of board independence on performance, we argue that the different role of directors, both insiders and outsiders, as defined by the specific legal institutions in place in each system, might be what makes boards with a high proportion of outsiders less desirable in the Anglo-Saxon system, while the opposite is the case in Continental Europe.

Beginning with the role of insiders, we can see the first difference in relation to the fiduciary duties of management, which are owed to shareholders in the Anglo-Saxon countries and to the company in Continental Europe (Allen and Gale, 2001; Wymeersch, 1998). As a result, while insiders in common law countries are, by means of a legal requirement, encouraged to work in the interests of shareholders, executives from civil law countries might have diverse goals other than shareholder value maximization. Therefore, as a consequence of how the law defines management responsibilities, high proportions of executives in the boards seem to be more dangerous for shareholders in Continental firms as compared to the UK.

Moreover, additional support for this argument is found on the different roles arguably played by outside directors in both systems. In the Anglo-Saxon world, it is not rare for outside directors to be invited to join the board by the incumbent management, typically the CEO, which conditions their loyalty to him, and might prevent them from exercising efficient monitoring (Wymeersch, 1998; Ruigrok et al., 2006). At the same time, by being external to the company, they are less knowledgeable about the running of the business. The combination of these two factors – poor monitoring and lack of information- would lessen their efficiency in relation to inside directors, which would be reflected in the non-existence of a positive relationship between board independence and performance.

Contrarily, non-executive directors in Continental Europe are usually elected by shareholders to represent their interests in the board (Wymeersch, 1998), and thereby, we can presume they have a higher incentive to actively monitor the CEO than those elected by insiders, plus they may have a comparative advantage over executive directors in that they are also more motivated to take decisions in the pursue of maximization shareholder value. This could explain the positive sign between board independence and firm value found in Continental European countries.

An earlier version of the third essay has been presented at the Financial Management Association (FMA) European Conference 2007 held in Barcelona (Spain).

The fourth and final essay (Essay 4) follows a framework similar to Essay 3, but in this case it investigates the effect of blockholder ownership on firm performance and the role of the legal family in shaping this relationship by using a GMM linear dynamic estimator on a sample of European banks over a 13-year period (1993-2005). The results obtained confirm the existence of differences in the effect that a change in the level of ownership concentration may have in the different institutional settings. For average levels of blockholder ownership below 50%, an increase in concentration might be beneficial for banking firms in the French and Scandinavian families; while it could have a detrimental effect on the Tobin's Q of banks from countries of German and English legal origin. The degree of legal protection of minority investors provided in each family, as well as the identity of the predominant blockholders in each system are discussed as the probably most important elements to interpret these findings. Thereby, while the lower level of investor protection granted in civil law countries (LLSV, 1998) could be behind the positive effect of large investors for performance, we believe an important element for the understanding why this effect is prevalent in the French and Scandinavian families, but not in the German one, could be the identity of the predominant blockholders in each

legal system. This way, the negative effect of ownership concentration found in Germany could be related to a general scepticism on the governance role of German banks, in this case as main shareholders in other banks. On the other hand, the good governance exercised by trusts and foundations could contribute to explain the positive relationship found in Scandinavia.

This fourth essay was accepted for presentation at the 24th Annual Conference of the European Association of Law and Economics (EALE) held in Copenhagen (Denmark) on September 13-15, 2007.

In addition to the individual paper presentations, the whole PhD project, as it was at very different stages, has been presented at the Workshop in Law, Economics and Financial Institutions organized by the Centre for Law, Economics, and Financial Institutions (LEFIC) at Copenhagen Business School in 2003, at the "Merton H. Miller" European Financial Management Association (EFMA) 2005 Doctoral Seminar held in Milan (Italy) and at the Financial Management Association (FMA) European Doctoral Student Seminar 2007 held in Barcelona (Spain).

#### Main contributions

This thesis contributes to the understanding of corporate governance in the banking industry in different ways.

First, it provides a comprehensive overview of the corporate governance problem in the banking industry, highlighting its main characteristics and explaining the major challenges for future research. A good understanding of the functioning of corporate governance in banks, as well as of the risk that excessive regulation might decrease the power of the particular corporate governance mechanisms, should help regulators and supervisory authorities to more efficiently design the different regulatory schemes put in

place to assure the stability of the system. On the other hand, banks willing to improve their performance should also be interested in learning which governance tools might lead them to financial success. In other words, if the governance problem is different in the banking industry, we will not be able to successfully apply our knowledge on the governance of industrial firms to solve it. As an example, let's take the restrictions to keep ownership concentration or board size under certain levels, both regulators and investors can benefit from being aware that, while these measures might perhaps be helpful in other settings, their application with the objective of improving the bank's governance and, thereby, performance does not have any foundation on existent research. Likewise, while supervisory activity might be beneficial for the general economic stability, its use has not been shown to increase the market value of banks, as the improvement of the legal protection of investors would, according to the existing literature.

Second, it confirms the existence of different patterns of board and ownership variables across countries and legal families. This should warn both researchers and regulators of the risks of taking a universal approach to corporate governance. Regulators should be careful with the implementation of *one-size-fits-all* type of rules or recommendations without consideration of the different institutions. The confirmation of the influence of the legal families should also encourage researchers to further investigate the precise role for corporate governance of the particular institutions that lie behind the legal origin. Furthermore, the possibility that the variation in board characteristics across countries is, at least partly, exogenous determined, constitutes an additional argument in favour of comparative studies when wanting to investigate the effect of some specific board structures on performance; especially in relation to single country studies, where a larger share of the variation in the variables could have an endogenous origin. Finally, the

international variation in governance structures might also be an interesting factor to take into account for banks contemplating possible cross-border M&As.

Third, the findings of this thesis show empirically that board independence does matter, at least in the banking industry, but its effect on performance is dependent upon the governance system we are in. A plausible explanation to this might be found in the countries' company law. We argue that the different role of directors, both insiders and outsiders, as defined by the specific legal institutions in place in each system, is what makes boards with a high proportion of outsiders less desirable in the Anglo-Saxon system, while the opposite is the case in Continental Europe.

Fourth, there exists a significant relationship between ownership concentration and performance, which is also influenced by the tradition of the legal system. The findings suggest an increase in concentration might be beneficial for banking firms in Continental Europe, where the degree of legal protection of minority investors is lower (La Porta et al., 1998), as compared to common law countries (the UK and Ireland in our sample), where an increase in ownership concentration could have a detrimental effect on performance. As an exception to this, stands out the German family, which, while belonging to the civil law group, presents increases in blockholder ownership that are accompanied by a fall in performance. We posit that the actual effect of ownership concentration on performance is a combination of two elements: the level of investor protection and the identity of the predominant blockholders. In this sense, the fact that the negative sign in the German law countries might be explained as a response to the prevalence of other financial institutions as the majority owners in these countries should trigger off the concerns of regulators and the interest of researchers in relation to the actual role of German banks in the corporate governance of other firms, both financial and non-financial.

Furthermore, these two last points should raise a word of caution in relation to the wide-spread assumption of the goodness of board independence or the restrictions on shareholdings in banks. While recommendations on these directions could alleviate governance problems in some countries; it seems that enhancing the independence of the board and/or limiting the size of blockholdings might even have a detrimental effect for shareholders from other institutional environments.

#### **Further issues**

The complete study of the corporate governance of banks would necessarily comprehend several other topics that, despite their undoubted interest, have remained out of the scope of this thesis. As examples of these, we could think of aspects such as the efficient design of incentive compensation packages in banking, the relevance of CEO turnover, the impact of having a dual CEO/chairman of the board, the question of whom should ideally be the object of the bank directors' fiduciary duties, or the cross-border M&As of banks within the EU, currently very debated in the literature, especially in relation to specifics topics in banking regulation and supervision, such as subsidiary debt, deposit insurance, bank risk, etc.<sup>1</sup>

Furthermore, the confirmation of the statistically different patterns of ownership and board structures of banks across Western European countries gives rise to the obvious following question: what is behind this "nation effect"? In general terms, the

or so

<sup>&</sup>lt;sup>1</sup> For some examples of this literatures, see John et al. (2003) for a theoretical analysis on the relationship between subordinated debt, regulation and the incentive features of top management compensation in baking; and John et al. (2000) and John and Qian (2003) on the effects of regulation and the incorporation of incentive features of top management compensation in the deposit insurance premium scheme. Bliss and Rosen (2001) study the interaction between the CEO pay and the occurrence of M&As.

academic literature has traditionally explained the international differences in corporate governance drawing mainly on economic (John and Kedia, 2006; Doidge et al. 2004), political (Roe, 1991; Bushman and Smith, 2003) or legal factors (LLSV, 1998, 1999).

While perhaps the variation in the nations' stage of economic development is not too big among the countries in our sample, the fact that many of these governance dimensions being studied are subject to national regulation, and more frequently so in the case of banks than in other sectors, makes stronger the case for a legal approach to explain the evidenced national patterns.

Although the empirical evidence provided in this thesis confirms the relevance of the legal institutions for the corporate governance of banks, and thereby, is in line with the *Law and Finance* tradition initiated by La Porta et al. (1998); we could also wonder what would be the results of conducting a parallel research adopting a political perspective, as suggested by Roe (1991) and carried out empirically in Roe (2006) by comparing the two approaches. However, despite the indubitable interest of the question, the vast dimensions of this task, especially in relation to the complexity of taking into account the different political events occurring in the different nations that had a potential effect on the corporate governance of banks, left the realization of such a cross-country study confronting both theories out of the scope of our analysis.

On the other hand, even if the use of the legal family to proxy for the legal institutions gave us the possibility to carry out the analysis given the limitations on the data available, we believe it would be of great relevance to further study in depth the different types of rules and regulations regarding banks' boards of directors or shareholdings across Europe, examining what has its origin in the legal family and which other elements are the product of specific regulations at the national or supranational levels.

Furthermore, we find two additional and very interesting opportunities for future research stemming from the findings in Essay 4. In our interpretation of the results concerning the existence of different relationships between blockholder ownership and financial performance across the different legal systems we discuss the influence of the typical bank owner in each system as one of the possible explanations. In so doing, we had to rely on previous work by Caprio et al. (2003) on the identity of bank owners. However, an optimal investigation of this issue would include information on the owners' identity over several years and thus, would be in an ideal position to analyze the interaction between blockholder ownership and identity, institutional factors, and financial performance. Likewise, a second way to enrich our knowledge on the relationship between ownership and performance would be by explicitly looking at the consolidation process occurred in the EU banking sector during the last years, and investigating the possible interrelations between ownership, performance and product market competition in European banking.

Finally, when I started working on this thesis, the European Union consisted on fifteen countries; during these last years it has been enlarged to include twenty-seven. Being aware of the role of institutions for corporate governance, we cannot confidently expect the newcomers - mostly transition economies with very different legal, political and economics backgrounds – to present the same patterns of behaviour observed for Western European banks. As a consequence, further research is necessary that compares banks from Western and Eastern Europe, which might throw additional light upon the general debate on the relevance of the particular institutions for corporate governance.

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Essay 1

Corporate governance in banking: a survey of the

literature

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Abstract

The aim of this paper is to explain the particular characteristics of the corporate

governance of banks and its role for good bank performance. In order to do that, it

reviews the existing literature on this issue trying to answer three main questions: (i) Why

are banks different? Existing research points at diverse features, such as, regulation,

supervision, capital structure, risk, fiduciary relationships, ownership, and deposit

insurance, that would make banks special and thereby influence their corporate

governance. (ii) What is different about bank governance? According to past studies,

banks' boards of directors are larger, more independent, have a superior number of

committees and meet more often, but seem to play a weaker disciplinatory role. Executive

compensation would be higher in banking, but pay-performance sensitivity appears lower.

(iii) What works for banks? Larger boards, more concentrated ownership structures and

certain levels of managerial shareholdings are the principal factors suggested by the

empirical evidence to date that seem to lead banks to higher performance.

*JEL classification*: G21; G34.

*Keywords*: Corporate Governance; Banks; Performance

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#### 1. Introduction

Banks have a central role in any economy. They mobilize funds, allocate capital and play a decisive role in the corporate governance of other firms. All this means that, when banks are efficient, they stimulate productivity growth and the prosperity of the whole economy. On the other hand, banking crises are able to destabilize the economic and political situation of nations. These strong externalities on the economy make the corporate governance of banks a fundamental issue. Well-governed banks will be more efficient in their functions than those governed poorly (Levine, 2003). And as a result of its relevance, in the case of banks, corporate governance is not merely a private, but also a public affair manifest through the existence of bank regulation and supervision.

Furthermore, not only the good governance of banks is important, but the question arises as to whether it is different from other firms. As this paper will show, banks appear to pose new questions to the corporate governance problem due to their intrinsic characteristics and their regulated condition. In the current European situation, where the deregulation process has dramatically changed the competitive scenario of the banking industry in the recent years, understanding the corporate governance of banks becomes an exciting challenge.

Given that the failure of the boards of directors and management is acknowledged to be one of the major causes of the collapse of many banks (Office of the Comptroller of the Currency, 1988), we believe that a better knowledge of the particular way banking firms are and should be governed will be very helpful in preventing important not only private, but also social costs derived from bank failures or simply poor bank performance.

From the banks' perspective, the fine development of a governance system should be a main matter of concern and could constitute an essential strategic strength for banks willing to be competitive in the new EU scenario. The European Central Bank (1999) offers a detailed analysis of the current trends in the European banking system, trends that are expected to be reinforced and accelerated by the recent introduction of the euro. All the new regulatory changes associated to the European Monetary Union will continue to gradually impact the banking industry, meaning that more internationalization of the banks across the EU is expected to take place, both through an increase in the number of mergers, acquisitions and strategic alliances, and through foreign branching and subsidiaries. Furthermore, with disintermediation becoming increasingly important and the adoption of the latest technologies by banks, extra pressure would be put on the reduction of the industry excess capacity. All this should warn banks to fine tune their strategies in the new competitive environment if they do not want to see their profitability dramatically reduced.

In this paper we review the academic literature trying to understand the special characteristics of the corporate governance of banks and its role for the good performance of the banking firm. Our findings can be briefly summarized around three main questions:

- (i) Why are banks different? Existing research points at diverse features, such as, regulation, supervision, capital structure, risk, fiduciary relationships, ownership, and deposit insurance, that would make banks special and thereby influence their corporate governance.
- (ii) What is different about the corporate governance of banks? According to past studies, boards of directors and takeovers, both friendly and hostile, play a weaker disciplinatory role in banks; even though boards are larger, more independent, have a superior number of committees and meet more often. Top executives compensation is higher in banking, but pay-performance sensitivity is lower. Finally, while banks present more dispersed ownership structures, high government participation is common all over the world.

(iii) What works for banks? Within the governance system, the elements that seem to lead banks to increased performance, as suggested by the empirical evidence on the issue, are ownership concentration, certain levels of managerial shareholdings and larger boards.

All this make us think that the whole understanding of the corporate governance problem may vary considerably with the industry and, perhaps, this could be one of the reasons behind the lack of more significant results in the corporate governance literature. In this sense, on top of banks, other sectors of the economy might benefit from this industry-specific study too by considering the potential uses of regulation to enhance their competitiveness. Nonetheless, it might also be important to keep in mind that the number of studies that focus specifically in the banking sector is not so large at the present moment and they have primarily been based on US banks. Therefore, it remains yet to be seen whether further research will confirm the current findings on the specific governance mechanisms conducing to the improved financial performance of banks.

It is necessary to make clear some delimitations to our study. The corporate governance role played by banks in other firms has been broadly touched upon in the academic literature<sup>2</sup>, but it does not constitute the object of our research in this paper, where we are concerned with the way banks themselves are being governed. Likewise, the interesting topic of M&As within the EU banking industry<sup>3</sup>, despite being closely related to the banks' corporate governance, will not be covered here neither. Finally, the surveyed literature focuses mainly on commercial banks or universal banks that undertake the full range of traditional banking services.

<sup>2</sup> See Gorton and Winton (2002)

<sup>&</sup>lt;sup>3</sup> See Campa and Hernando (2004 and 2007).

Even thought the geographical focus of the following essays will be on Europe, we include here many studies on other nations (mainly, U.S.) given the limited investigation at present available on European banks.

We will address the corporate governance problem from an agency theory<sup>4</sup> perspective, the most commonly used in the economic literature, thought we are aware this issue can be analyzed from other different and also interesting angles (resource dependence theory, stewardship theory, power perspective,...).

The paper is structured as follows. Section 2 broadly defines the corporate governance problem and examines the theoretical and empirical literature that links it to company performance. Section 3 explains the singularity of banks and the impact on their corporate governance. The fourth section looks at the determinants of bank performance, focusing on the particular influence of the corporate governance mechanisms. Finally, the main conclusions are summarized in section 5.

### 2. Corporate governance as a determinant of performance

### 2.1 What is corporate governance?

There is a very wide literature on corporate governance. Research has been done both in theory and empirical issues. But, why has it become such a hot topic in the last years so as to attract all this unprecedented interest? According to Becht et al. (2002), we can find the explanation to this on a set of phenomena, such as: (1) the privatization wave that spread all over the world during the past two decades, (2) the pension fund reform and the growth of private savings that meant increased investor activism, (3) the takeover wave of the 1980s in the U.S. and the 1990s in Europe, (4) the deregulation and

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<sup>&</sup>lt;sup>4</sup> The agency theory analyzes the relationship between the principal (shareholder) and the agent (manager), in which the agent acts on behalf of the principal.

integration of financial markets, and finally, (5) the recent scandals and failures that took place in some of the largest U.S. firms in the last years.

Now that we now what brought it into the picture, we may start wondering what is in fact all this corporate governance issue about. From a broad perspective, we could say that

"Corporate governance is concerned with the resolution of collective action problems among dispersed investors and the reconciliation of conflicts of interest between various corporate claimholders." (Becht et al., 2002, p.2)

If we narrow the approach and take a straightforward agency perspective, focusing on the separation between ownership and control, then:

"Corporate governance deals with the ways in which the suppliers of finance to corporations assure themselves of getting a return on their investment." (Shleifer and Vishny, 1997, p. 2)

These studies constitute today two of the most comprehensive reviews of the theoretical and empirical research on corporate governance. Finance without governance, legal protection of shareholder rights, large shareholders and takeovers, debt finance, and state ownership and cooperatives are the possible solutions mentioned by Shleifer and Vishny (1997) to the governance problem.

Similarly, Becht et al. (2002) point at five mechanisms to solve the *collective* action problem: large shareholders, hostile takeovers and proxy voting contests, the board of directors, executive contracts linking compensation and company performance, and finally, well-defined CEOs fiduciary duties combined with class-action suits. They reach the conclusion that the major problem now is balancing the tradeoff between regulation of

large-shareholder supervisory power in order to protect the dispersed investors and the need to monitor managers to prevent them from self-dealing and abuse shareholders

In their survey, Shleifer and Vishny (1997) account for different governance models across countries. The US and the UK have a governance system characterized by a strong legal protection of investors and the lack of large investors, except when ownership is concentrated temporarily during the takeover process. In Continental Europe (particularly, Germany) and Japan, corporate governance relies more in large investors and banks to monitor managers; legal protection for investors is weaker and hostile takeovers very uncommon. What we see in the rest of the world is heavily concentrated ownership in families, some outside investors and banks; and an extremely limited protection of investors. Legal protection of investors and concentration of ownership are considered complementary approaches to corporate governance. All successful governance models (Anglo-Saxon, German or Japanese) are characterized by protecting efficiently at least some kind of investors.

Within the field of research that aims to find an explanation to these differences in the corporate governance models prevalent around the world, two main streams of literature stand out: the political approach and the legal perspective.

The "political view" to corporate governance argues that political pressures, together with the economic factors, influenced the evolution of the different governance models (Roe, 1991). For this "political view", the well-developed protection of small investors in the U.S. is partly the result of the suppression of large investors and bank monitoring.

Adopting a legal perspective, La Porta et al. (1998) highlight the role of the different legal systems in shaping the corporate governance model prevalent in a certain country. They show that legal systems differ across countries according to the origin of

their laws [common law countries *versus* civil law countries (composed by German, Scandinavian and French families)]. Investors are better protected in common law countries than in Germany or Scandinavia, and they suffer the lowest level of protection in French civil law countries. The quality of law enforcement, together with the quality of the accounting standards, varies a lot around the world and clearly improves with higher income levels. In the best position we find now German civil law countries and Scandinavia, followed by common law countries. Again, French civil law countries are at the bottom with the weakest law enforcement. Finally, and maybe as a response to poor investor protection, they observe that concentration of ownership is very high in publicly traded companies around the world.

### 2.2 Corporate governance as a determinant of performance

There are numerous studies that provide us with both theory and empirical evidence to link the governance of the corporation to its performance. We will briefly highlight here the main findings from the literature that focuses on the board of directors, ownership structure, incentive compensation and the legal protection of investors.

#### 2.2.1 Board of directors

The board of directors is known as one of the most important instruments to solve the corporate governance problem (Jensen, 1993), since it is the organ primarily used by other stakeholders to monitor management. Despite this fact, the theoretical studies on the board of directors have been quite scarce.

Hermalin and Weisbach (1998) construct a model that examines the determinants of board composition as a bargaining process between the existing directors and the CEO over the incorporation of new members on the board. Depending on the CEO's perceived

ability compared to potential successors, the power of the CEO in the negotiations will determine whether he dominates the board or, instead, he will be subject to active monitoring. The model predicts a number of empirical regularities: poorly performing CEOs are more likely to be replaced than well performing ones; the sensitivity of CEO turnover increases with the independence of the board; after poor firm performance, additions of independent directors to the board are more probable; the board will become less independent over the course of a CEO career; and last, management turnover is better explained by earnings that by stock returns. The model also suggests some other predictions not yet empirically tested. First, there will be long-term persistence in corporate governance practices. Second, when a manager is fired on the basis of private information, it should be followed by a fall in the stock price. Conversely, if the reason of the firing is public, the stock price would rise. And third, their last prediction is concerned with the sensitivity of the CEO salary to past performance, which should increase with the level of performance achieved.

In another interesting study, Bennedsen (2002) finds two motives behind the establishment of boards when this is not imposed by law. In his model, besides the governance motive (boards exist because they create firm value by monitoring the management and governing the firm), there is a second reason (distributive motive): boards help solving conflicts between controlling and non-controlling owners. The strong presence of this distributive motive leads him to argue that increased investor protection could reduce its relative importance, permitting boards to be more focused on governance, thus boosting the value of the firm.

While the formal theory on the board of directors has been quite limited, the number of empirical studies is considerable. Hermalin and Weisbach (2003) are the

authors of one the most detailed surveys on the empirical literature on the issue and reach the following conclusions:

- There is no relation between board composition and corporate performance.
- A negative relationship exists between board size and corporate performance.
- Both board composition and size affect the quality of the decisions taken by the board concerning the replacement and pay of the CEO, acquisitions and poison pills.
- The evolution of the board over time is determined by the negotiation process between the existing directors and the CEO.
- The studies based on organizations with prohibitions on takeovers testing whether boards function as a substitute for an external control market (measuring the number of outside directors) found opposite results.

The fact that the empirical evidence does not show that independent boards of directors improve the financial performance of the firm could be due, according to Daily et al. (2003a), to two potential explanations: the excessive focus on directors' oversight role without consideration of alternative roles (resource, service and strategy roles), and the possible existence of intervening processes between board independence and firm performance.

# 2.2.2 Ownership structure

Moving on to our second governance mechanism, we find that the effect of the ownership structure on firm value has often been studied in relation to the level of product market competition. Mayer (1998) relies on the existing literature to make a theoretical overview of the interrelation between corporate governance, competition and performance. According to this author, corporate governance can bear on performance

through five different channels: incentives, disciplining, restructuring, finance/investment and shareholders commitment/trust. He argues that incentives, disciplining and corporate finance are not the main features that differentiate financial systems. Instead, they are the diverse types of ownership and control across countries what seems to influence mostly the formulation and implementation of corporate strategy. This way, while insider systems (characterized by concentrated ownership and large shareholders monitoring, and common in Continental Europe and Japan) might be better at implementing policies that involve relations with stakeholders; outsider systems (dispersed ownership, management controlled firms, frequent in the US and the UK) are more flexible and can better adapt to changes. Eventually, product market competition will determine the effectiveness of the different governance systems and, consequently, their impact on performance, through the shaping of the required ownership and control structure.

In a very interesting paper, Nickell et al. (1997) also look for an interaction between competition, ownership and performance. They use a productivity growth model on a panel of 580 UK manufacturing companies from 1982 to 1994 to show us, confirming previous studies, that product market competition, financial market pressure and shareholder control are all associated with some degree of productivity growth. Furthermore, they find some significant evidence that financial market pressure and shareholder control can substitute for competition as a disciplinatory mechanism of management.

If we now centre our attention exclusively on the effect of the ownership structure<sup>5</sup>, we will have to go back to 1933, when Berle and Means suggested a positive correlation between ownership concentration and firm profitability (Berle and Means,

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<sup>&</sup>lt;sup>5</sup> For a more thorough and comprehensive review on the theoretical and empirical aspects of the relationship between ownership and firm value, see Thomsen et al. (2006).

1933). Since more concentrated structures would suffer less the governance problem arising from the separation between ownership and control, the opportunities for managerial self-dealing would be reduced, and consequently, that would have a positive influence on the company's profit rates.

However, later findings by Demsetz and Lehn conflict with this thesis (Demsetz and Lehn, 1985). After examining the impact of ownership structure on firm value in a single regression model, they claim that the lost of control by the owners could be offset by a lower cost of capital or other benefits of diffuse ownership causing the optimal degree of ownership concentration to vary across firms according to differences in firm size, the instability of the environment, the presence of regulation in the industry or the amenity potential of the firm's product for the owners.

On the whole, the empirical literature analyzing the effect of ownership on firm value is consistent with Demsetz and Lehn (1985). Demsetz and Villalonga (2001) use simultaneous equations to examine 223 US firms over the period 1976-1980, a subsample of the Demsetz and Lehn (1985) data. They consider two dimensions of ownership structure, managerial ownership and ownership concentration among outside shareholders, and after controlling for capital structure, advertising and research intensity, firm size, profit volatility, stock market risk and industry dummies for the financial, media and utilities sectors, they find that no significant impact of ownership structure on firm value, as measured by Tobin's Q.

But, can we generalize these findings based on US firms to the rest of the world? Thomsen and Pedersen (2000) argue that this relationship between ownership and performance may be influenced by the governance system and thus, they analyze the relation between ownership structure and economic performance in the largest European companies. Both for return on assets and market-to-book values of equity, they provide

evidence of a bell-shaped effect of the share of the largest owner on firm performance, significant even after controlling for industry, capital structure and nation effects<sup>6</sup>. Furthermore, they find that this relationship is also influenced by the identity of the largest owner, as well as for nationality. This way, in the case that the largest owner of a British company is a financial institution, we will find the highest impact of ownership share on the above mentioned measures of performance. For sales growth, the largest effect would be found in companies in which the largest owner is a family or another company. The reason behind the relevance of owner identity could be the different goals each type of shareholder may have, besides the common interest in shareholder value maximization.

Continuing in this line of arguments, Thomsen et al. (2006) use Granger-tests for causality on data on ownership and firm value over a 10-year period (1988-1998) for 876 of the largest EU and US companies. Their results confirm the existence of a *system effect* in the relationship between blockholder ownership and firm value (using Tobin's Q). While in the US and UK they find no evidence of causality either way, corroborating previous research by Demsetz and Lehn (1985) and Demsetz and Villalonga (2001); in Continental Europe a strong negative effect of blockholder ownership on firm value is observed, though only significant for firms with high initial level of blockholder ownership. According to the authors, the high levels of blockholder ownership in continental Europe would have reduced the value of the firm, at least from the point of view of minority investors.

<sup>&</sup>lt;sup>6</sup> In Thomsen and Pedersen (1997) we can see for a sample of the largest European companies that both nationality and industry have an effect on the ownership structure.

## 2.2.3 Incentive pay

Changing now to the use of incentive pay as a governance mechanism, Murphy (1999) makes a comprehensive review of the empirical and theoretical research on executive compensation. His findings suggest that pay-performance sensitivity is positive and small, but with a tendency to increase over time. Nonetheless, the causality is debatable; since, on the one hand, managers may be more likely to accept performance related pays when they expect good performance (it is not uncommon that managers influence their own pay), and on the other, there is typically more room for extra compensation packages, including performance related pay, when the company is doing well.

Even if it is true that there has been a stronger alignment between executives and shareholders during the last decades as a result of the increased reliance on equity-based forms of compensation, especially on stock options plans, Daily et al. (2003a) and Daily et al. (2003b), when reviewing the research on governance through ownership and regarding the relationship between CEO compensation (shareholdings versus salary) and firm performance, find little agreement on any strong relationship. Even when such relationship has been consistently demonstrated, the causality is not clear. Likewise, there is no firm evidence on the efficacy of the recent trend consisting on compensating members of the board of directors with stock (Daily et al., 2003b).

## 2.2.4 Legal protection of minority investors

Finally, and regarding the legal aspects of corporate governance, La Porta et al. (2000) examine 371 large firms from 27 wealthy economies and conclude that better investor protection is associated with higher corporate valuation. This would be explained, according to the authors, by the fact that outside investors would be willing to pay a

higher price for financial assets when a better legal protection makes sure that they will receive their rents.

### 3. The corporate governance of banks

### 3.1 What is special about banks?

Banks carry out different activities that vary according to the diverse economic and institutional conditions in which they operate. Following Danthine et al. (1990), we can explain the broadest concept of universal banking by dividing it into three groups performing different functions: retail banking, investment banking and asset management. Retail banking would be subdivided into commercial banking (in charge of lending to firms and consumers, collecting deposits and managing the accounts and transactions associated with the deposits) and private banking (responsible for the management of portfolios of wealthy individuals). Investment banking would comprehend the underwriting of securities, market making and mergers and acquisitions; while the category of asset management would take care of the management of institutional assets, pension funds and other large-scale savings instruments. Furthermore, the scope of banks has recently begun to include new activities, such as credit card business, insurance, etc.

Nonetheless, no matter if we consider this broad concept of universal bank or if we narrow the approach down to commercial banking, the fact is that banks are not like other firms. The very nature of its business, consisting mainly in receiving deposits, making loans and processing information, and its central role in any economy, as the basis for the payments system, make them different in many aspects. The academic literature has been prolific trying to explain the existence of financial intermediaries, i.e., what is that banks do that cannot be replicated in the capital markets through direct contracting between

investors and firms. Following Gorton and Winton (2002), the major theories on this issue point at five main roles of banks:

### 1. Banks as delegated monitors:

Diamond (1984) was the first to suggest that financial intermediaries exist because they "monitor" borrowers.

In a contract between a borrower and a lender there is an ex post information asymmetry in that only the borrower knows the realized output of his project, and therefore, he would not pay the lender back unless he has an incentive to do so (a moral hazard problem). If the lender could produce information about the borrower's realized output, he would overcome his disadvantage and reduce the agency costs. This production of information about the borrower's output is what Diamond denominates "monitoring". Given that monitoring borrowers is costly, it will be efficient for investors to lend to a specialized agent (the intermediary) who will be monitoring borrowers on behalf of them, as long as the costs of monitoring the intermediary (known as the "monitoring the monitor" problem) are lower than the costs of lenders lending directly to borrowers and directly incurring the monitoring costs.

As Diamond shows, this centralization of the task of monitoring is an efficient solution because, as banks grow large, only if they have monitored as promised, will they be able to satisfy their commitment to pay depositors back. Otherwise, they would incur non-pecuniary penalties, such ass bankruptcy costs or loss of reputation.

Diversification among different investment projects is crucial in explaining why delegating monitoring to an intermediary is a lower cost solution to the ex post information asymmetry between borrowers and lenders than the securities market because diversification is critical to reducing the monitoring the monitor problem.

#### 2. Banks as formation producers.

In addition, banks may also be in charge of producing information about investment opportunities and sell then the information to uninformed economic agents (see, among others, Boyd and Prescott, 1986).

In this connection, a rich strand of literature has emerged that focuses on "relationship banking" and relies on the idea that banks acquire this private information through repeated interaction over time in what is known as "customer relationship" (see Haubrich, 1989; Rajan, 1992; and for an extensive review of this literature, see Gorton and Winton, 2002).

#### 3. Banks as consumption smoothers.

The Diamond and Dybvig model (Diamond and Dybvig, 1983) looks at the liability side of banking, where demand deposits offer consumers the right to withdraw from the bank and prematurely end investments in order to satisfy their desired consumption paths. According to Diamond and Dybbvig, banks act this way as vehicles for consumption smoothing, in the sense that consumers that save via intermediation get insurance against the consumption shocks derived by their random consumption needs.

#### 4. Banks as liquidity providers.

A fourth characteristic of banks is related to the fact that bank liabilities can function as medium of exchange and may even dominate government-supplied money, which explains the central role banks have in payment systems as liquidity providers (Freeman, 1996).

#### 5. Banks as commitment mechanisms.

Banks are very fragile institutions. Their above mentioned liquidity production function (the mismatch in the term structure and liquidity of their assets and liabilities) together with the high debt ratios make bank runs a serious risk to be considered and,

according to some, create the need for the deposit insurance fund (Macey and O'Hara, 2003).

However, looking at it from a different perspective, fragility can also be seen as a positive attribute of banks. Some authors argue that capital structures are designed to be fragile, so that they function as a commitment mechanism, as a device to discipline bankers and prevent them to engaging in risky activities (Calomiris and Kahn, 1991; Flannery, 1994).

Nevertheless, as Diamond and Rajan (2001) point out, moral hazard may not be the only reason behind bank runs, and in a situation of high liquidity demand very fragile structures might not be the most desirable, but the maintenance of an optimal level of bank equity capital would be a safer option.

## 3.2. Regulation and supervision

After reviewing the main roles played by banks, it is easy to understand that the consequences of a bank crisis can be devastating for an economy. Not only the nature of their activities and the high debt ratios make banks very fragile institutions; on top of this, because of the interconnectedness of banks, the failure of one institution can immediately affect other banks and firms they do business with. This is known as *contagion effect* and makes bank runs a very serious issue to deal with since they could potentially spread throughout the economy - in what is called a banking panic -, justifying the systemic interest to avoid bank failures and the associated high social cost (Llewellyn, 2001).

Whether banks are inherently unstable, that is, prone to panics, or not is still the object of a vast amount of theoretical and empirical literature on banking panics and the stability of the banking system<sup>7</sup>. But this view on the relationship between bank health

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<sup>&</sup>lt;sup>7</sup> See Gorton and Winton (2002), Section IV, for a review.

and business cycles is at the root of the widespread banking regulation (Gorton and Winton, 2002), and government policies used to regulate banks reflect this systemic interest to avoid bank failure and its contagion to other banks, and aim to ensure a safety net for depositors and to promote soundness in banks' investment practices.

Given the specificity of these objectives, banking regulation raises issues that are not addressed within the general theory of regulation and its instruments must also be specific to the banking sector (Freixas and Rochet, 1997). The regulatory instruments used in banking can be classified into six types: deposit interest rate ceilings; entry, branching, network and merger restrictions; portfolio restrictions; deposit insurance; capital requirements; and regulatory monitoring. Except for entry and merger restrictions, they are all typical of the banking industry (Freixas and Rochet, 1997).

As previously commented, it is often argued that safety-net arrangements, and in particular, the deposit insurance fund, created to prevent bank runs and reduce the impact on the economy when an individual bank collapses, can modify the incentive structures of the different parties involved in the governance of the firm creating a moral hazard problem [Llewellyn (2001), Macey and O'Hara (2003)]. According to this idea, bank shareholders would have an incentive to take advantage of this deposit insurance by engaging in riskier activities than they would otherwise. At the same time, if the adoption of government deposit insurance policies leads banks to take additional risks, there will be further need for government intervention via bank regulation (Gorton and Winton, 2002; Buser et al., 1981).

Another interesting regulatory issue concerns market discipline. A profuse stream of literature has investigated this topic (Flannery and Sorescu, 1996; Berger et al., 2000; Flannery, 2001). In particular, Flannery (2001) offers a broad discussion on market discipline, which he defines as an ambiguous concept "used to incorporate two distinct

phenomena: market investors' ability to monitor (identify) changes in bank conditions vs. their ability to influence a firm's actions". In this paper, Flannery advocates for more market discipline, by explaining how market information should be incorporated into the supervisory process. He argues that, since investors are better at monitoring and supervisors do better at influencing, supervisors should take market prices into consideration to act more promptly when a firm is in trouble, in order to minimize the social costs of bank failures.

In the particular case of the European banking industry to understand the regulatory environment for banks in the EU, we can divide it into two parts: the harmonized fraction and the country-specific non-harmonized part (Padoa-Schioppa, 1999). Within the harmonized set of rules, the most interesting in our case is the Second Banking Coordination Directive. If traditionally, banking legislation was primarily concerned with possible bank failures, now, an extra focus is on competitiveness on a national and international level. The Second Banking Directive (issued in January of 1988 and implemented on January 1, 1993) authorizes banks already operating in a member state to open branches and to provide services in all other member states, subject to the agreement of the supervisor in the home state. This way, it provides European banks with greater opportunities for international expansion. According to Barth et al. (1997), this Directive also increases the opportunities for regulatory arbitrage, and as a consequence, we will see greater harmonization of the regulation of banks throughout the EU.

Previously, the First Banking Coordination Directive (1977) had agreed on a definition of credit institution and the granting of a banking license. In the following years, a number of subsequent Directives have addressed the main regulatory issues for EU banking; and nowadays we can say that the EU "banking law" is quite well-developed and consistent with the Basle Committee's rules (Padoa-Schioppa, 1999).

A very important issue in the regulation and supervision of banks involves capital standards [Padoa-Schioppa (1999), Barth et al (1997), Krayenbuehl (1993)]. In July 1988 a number of countries adopted the specifications resulting from the Basle Accord realized by the Basle Committee on Banking Supervision and consisting on four basic elements: (i) a definition of Tier 1 (or core) capital, (ii) a definition of Tier 2 capital, (iii) a general framework to facilitate an standardized calculation of a risk-based capital ratio, and finally, (iv) establishment of a minimum risk-based capital ratio of 8 percent (of which Tier 1 would constitute at least 4 percent).

Concerning the banking supervision system in the European Monetary Union, Padoa-Schioppa (1999) gives us a brief explanation about its singularity. This uniqueness comes from the non-coincidence of the areas of jurisdiction of monetary policy and of banking supervision The Euro area is characterized by having a central bank which carries out monetary policy issues for all the member countries, but leaves the supervisory tasks to the national states, that will exercise this supervision through the national central banks and/or other separate institutions. Since there is no expectation, according to Padoa-Schioppa (1999), that the Treaty provision that allows the European Central Bank to become the common supervisory authority in the EMU (Art. 105(6)) will soon be activated; this author calls attention to the need of co-operation between the Eurosystem and the national supervisory authorities, if we want to avoid the propagation of possible problems through the whole Euro-area.

In this same line, Wihlborg (1999) points at the necessity to modify the principles of home country control and mutual recognition within the EU, since the current difficulties of national supervisory authorities to be informed about the exposure of banks to risk would sharply increase following the internationalization of banks. This modification would comprehend an expanded role for the ECB, including power to veto

the bailing-out operations of national central banks and the active coordination of activities of national supervisory authorities. According to Wihlborg, credibility would be the key concept if we want to improve bank supervision in the EU.

### 3.3. What is special about the corporate governance of banks?

According to Freixas and Rochet (1997), the specificity of banks lies in the fact that their creditors are also their costumers, and this entails a much more serious free rider problem related to the monitoring of widely held banks. Their reasoning goes as follows. While in non-financial firms "professional investors", such as, banks, venture capitalists or "informed" private investors, hold the majority of the debt; in the case of banks the debt is mostly held by uninformed, dispersed small agents (mostly households) that could poorly monitor the banks' activities. To make things worse, these securities can be used as a means of payment (which moderates the free rider problem involved in monitoring), and the capital structure of banks is characterized by a substantially higher proportion of debt than in non-financial firms (Freixas and Rochet, 1997).

On the other hand, it has also been broadly suggested that the existence of regulation in the banking industry has an important impact the governance of banks (Llewellyn, 2001), and more so than in other regulated industries since, as we have previously commented, banking regulation raises new questions and uses specific regulatory instruments (Freixas and Rochet, 1997).

More in particular, the fact that authorities provide some sort of subsidized monitoring might influence shareholder and depositors incentives to exercise control (Llewellyn, 2001). Following on Lindgren et al. (1996) tradition of discriminating between different levels of governance, and after analyzing the causes of recent financial crisis, Llewellyn (2001) takes a broader approach to bank regulation and builds up a

model where rules are only one of the seven complementary elements of the regulatory regime (previously considered to be alternative). These key components are: (1) the regulation; (2) monitoring and supervision by the authorities; (3) the incentive structures encountered by regulatory agencies, consumers and banks; (4) the role of market discipline; (5) intervention arrangements in the case of bank failures; (6) internal governance mechanisms within banks; and (7) the disciplining and accountability standards applied to regulatory agencies<sup>8</sup>. With the objective of financial stability in mind (i.e. reducing the probability of bank failures and the costs of those that do occur), the way to the optimal regulatory strategy would be to combine these complementary components of the regulatory regime having into consideration the negative trade-offs that may emerge between them. Particularly, there exists the risk that excessive regulation will decrease the power of the other mechanisms, even to an extent that may reduce the overall effectiveness of the regulatory regime. Defined in this fashion, the optimal regulatory strategy would vary across countries, over time and between individual banks. Concerning what would be specifically the internal governance mechanisms, he stresses the relevance of monitoring and supervision of the risk-taking profile of banks. In this sense, he recommends the existence of a board director exclusively dedicated to the bank's risk analysis, management and control systems; as well as having in mind that some ownership structures lead to inefficient bank governance (particularly, when banks belong to larger conglomerates).

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<sup>&</sup>lt;sup>8</sup> In relation to this, Woods (2000) explains how the International Monetary Fund and the World Bank should make changes in their constitutional rules, the decision-making procedures and other practices if they want to achieve the same standard of "good governance" that they require to their member countries, now, that the stakeholders involved increase their number and interest in the institutions

So far our attention has been centered on the conflict of interests between bank equity holders and creditors that might give rise to a moral hazard problem possibly aggravated by the regulation and other government policies put in place to control it. But are there conflicts of interest between bank owners and their managers? The empirical evidence available (Office of the Comptroller of the Currency, 1988; Barro and Barro, 1990; and Prowse, 1995, among others) suggests that the corporate governance problem is not exclusive of non-financial firms, but banks also face a second type of moral hazard opportunities that the above mentioned bank regulatory policies fail to address. What is more, bank regulation and the traditional corporate governance mechanisms have different goals and objectives and therefore could be counteracting each other, as Llewellyn (2001) previously pointed out by referring to the negative tradeoffs between them. For example, we could think that the alignment of interests of owners and managers used to reduce corporate governance costs may result in an increase of the moral hazard problem that regulation aims to combat by making managers willing to take higher risks. In opposite direction, the presence of regulation might also directly affect the power of traditional governance mechanisms in banks by placing barriers to takeover activities (Prowse, 1995), establishing differing restrictions on the holding of shares, or determining the type of board structure as well as the existence of government representation in boards (Allen and Gale, 200; Wymeersch, 1998).

Looking at it from a different angle, if the existence of specific regulation on the banking sector opens the door to the possibility of interplay between private and public governance systems, it can also be argued that this interaction does not only mean that banks are affected by regulation, but that they can influence it too. This seems to be certainly the case in Japan through the phenomenon of the *amakudari* (Van Rixtel and Hassink, 2002), and we may wonder whether and to what extent this could also be taking

place in Europe. In this connection, the stream of economic literature based on the concept of rent-seeking could be useful. The theory of rent-seeking is frequently defined as the sum of resources spent by individuals and organizations in pursuit of rents created by government<sup>9</sup>. In our particular situation, we could imagine banks trying to influence national regulation in order to achieve different objectives, for example, improve their competitiveness in relation to foreign banks (as we have seen a better protection of investors can boost corporate valuation (La Porta et al., 2000).

As we have discussed so far, it seems that banks' intrinsic characteristics and their regulated condition are likely to have an effect on the particular configuration of their corporate governance model. Now it would be interesting to look at the empirical evidence on the corporate governance mechanisms of banks and their functioning, and therefore we move on now to review the empirical literature on the issue. Despite the existence of all these observed elements that make the corporate governance of banks potentially different, the fact is that research on the governance of banks outside the US has received surprisingly little attention by researchers. For ease of exposition, we will broadly try to follow the order of mechanisms used in the previous section (boards of directors, ownership structure, incentive pay, legal protection); however, in some cases they appear inevitably mixed.

One of the pioneers in this area is Prowse (1995). He analyzes the effectiveness of alternative methods of corporate control for a sample of U.S. commercial Bank Holding Companies<sup>10</sup> (BHCs) over the period 1987-1992 considering different measures of

<sup>&</sup>lt;sup>9</sup> The idea was introduced by Tullock (1967), but the term would not be invented until 1974 when Krueger published a study estimating the social losses incurred by the economies of India and Turkey by rentseeking for import licenses (Krueger, 1974).

<sup>&</sup>lt;sup>10</sup> In the U.S., a Bank Holding Company (BCH) is a company that owns two or more banks and has to be registered at the Federal Reserve System.

performance, ownership structure, and board composition. In this paper, two mechanisms appear to be weaker in the banking industry when compared to firms from other sectors of the economy: hostile takeovers and intervention by the board of directors, which, according to the author, makes the governance of the BHCs a more serious issue to deal with by regulators than in the case of non-financial firms. His results for the different types of changes in control can be summarized as follows:

- Hostile takeovers: They are less frequent among BHCs and have an
  unimportant role in disciplining management. Since regulatory barriers and
  delays are the reasons that make them infrequent, it would be beneficial for the
  corporate governance of banks to reduce the regulatory restrictions and the
  imposed delays.
- Friendly mergers: Even if in this case they are more common within the banking sector than in other industries; they do not respond neither to the need of disciplining management, since they mainly took place among BHCs that already performed well.
- 3. Removal of top management by the board of directors: It follows bad performance, but it is less frequent in banking than in manufacturing firms
- 4. <u>Intervention by regulators</u>: The banks that have gone through an intervention of this kind presented lower levels of ownership concentration prior to the intervention. From that, it is derived that concentration of ownership might improve performance due to the bigger motivation of large shareholder to monitor the managers.

Nonetheless, we should say here that there is no consensus on the potential gains from M&As. For example, Dermine (2002), concerning M&As of European banks, claims that they do help to improve profitability. Especially, they facilitate an increase in

efficiency when they serve those banks active in capital markets to achieve an optimal size.

The research conducted by Adams and Mehran (2003) results very helpful if we want to analyze potential differences in the way corporate governance works in banks compared to other industries. They study the differences between the corporate governance for BHCs and manufacturing firms by comparing a set of corporate governance variables. They find that board size, the number of outside directors in the board, the number of committees and the frequency of reunion of the board are all of them larger for BHCs than for firms in the manufacturing sector. Conversely, the proportion of CEO stock pay to salary plus bonuses, the percentage and market values of direct CEO equity holdings and block ownership appear to be smaller for BHCs relative to manufacturing firms. These findings lead them to conclude that governance structures are industry-specific. The authors discuss two possible explanations behind this fact. One could be found in the existence of differences in the investment opportunities for firms in the two industries. Another reason that could explain why governance structures are industry-specific is the already mentioned more exhaustive regulation in the banking industry. The interest in bank activities comes not only from investors, but also from depositors and regulators. Regulators are particular interested because of the effect of bank performance on the overall economic situation. All this means that regulation has a crucial role in the design of bank governance structures.

In a subsequent study, Adams and Mehran (2005), besides providing further evidence of the larger size and higher independence of banks' boards, they find that, for the banking industry, larger boards are accompanied by increased performance, as measured by Tobin's Q and after controlling for firm size, capital structure, and uncertainty, as well as for a set of corporate governance variables. At the same time, in

their results board composition does not appear to have any significant influence on performance. Additionally, they show how the structure of the BHC may affect board size

An interesting study by Van Rixtel and Hassink (2002) examines the flow of retirees from the Japanese monetary authorities (the Ministry of Finance and the Bank of Japan) into the boards of Japanese private banks (what is called *amakudari* or "descending from heaven"). establishing an informal network between the public supervisory institutions and the private banks. They conclude that this system has negative consequences on prudential policy in Japan, since it allows troubled banks to buy influence from the supervisory authorities to increase their risky operations. Of the three hypothesis tested, they are able to reject two: amakudari used only as an instrument of retirement, as a reward for top civil servants; and amakudari used for monitoring purposes, as a prudential policy tool (ex-post monitoring). However, they cannot reject the possibility of the existence of amakudari as a way for troubled banks to buy influence from regulators. According to this, bad performing banks would be more willing to persuade these retirees to join their boards, so the retiree can influence the regulators to bend the rules and allow them to increase the risk of their activities in order to try to improve performance. To carry out their research, they take into consideration two specific characteristics of the Japanese governance system to the extent they affect the banking industry: (i) Main bank system, the main bank would perform various functions on behalf of their client banks (keeps major equity and loan positions in the client, provides information, management and monitoring and disciplining of poor management); (ii) Keiretsu, informally organized business groups with a main bank in its center. Both main banks and keiretsu member firms could exercise monitoring functions with respect to their clients banks or banks member of the keiretsu, respectively. As a result, they obtain that the inflow of retirees is positively influenced by future profitability,

monitoring by main banks, lending to risky business and the fact that the bank was formerly public. On the other hand, a negative relationship was found between the inflow of retirees and changes in profitability, main bank relationships and common university background between top civil servants and board members of private banks.

Demsetz and Lehn (1985) were the first to establish a relationship between the ownership structure of the firm and its regulatory environment. They found that corporations can present different value-maximizing ownership structures influenced by the size of the firm, the instability of profit rate, whether or not the firm is a regulated utility or financial institution and whether or not the firm is in the mass media or sports industries. As they explained, the existence of systematic regulation in an industry decreases the potential gain derived from monitoring the managers that we would expect for a given instability of profit rate by reducing the options available to owners. Furthermore, regulation also implies certain degree of monitoring and disciplining for managers. These two reasons make the optimal structure in regulated industries to be more diffuse than expected for a given profit instability. Concerning size, their results show that it should be inversely related to ownership concentration. This would also explain the dispersed ownership found in most banking firms, which also happen to be large firms.

The ownership structure and the level of investor protection are some of the few dimensions of the corporate governance of banks where we are able to find some international evidence in the form of a comparative study. Caprio et al. (2003) carry out a comprehensive and detailed study of the legal protection of minority shareholders, bank supervisory and regulatory practices, and ownership of banks around the world, as well as their interaction to influence bank valuations. They first construct a database on bank ownership covering 244 banks across 44 countries and they find that banks are generally

not widely held (i.e., they do not have an owner that controls at least 10 percent of the voting rights) with only 25 percent of the banks being widely held in the average country. For banks with a controlling owner, this one is a family in more than half of the cases, followed by the State 19 percent of the time. Nonetheless, the picture changes dramatically when we focus exclusively on developed nations. In the Anglo-Saxon world and Japan, more than 80% of the banks are widely held. This percentage varies between 13 and 50 percent in Central and Southern Europe, with families and financial corporations controlling also large shares of banks. A different situation is observed for banks in the Netherlands and Scandinavia, which are predominantly controlled by trusts and foundations. As a result of this more detailed observation, it appears that banks still present, as we expected, more dispersed ownership structures than firms from other sectors, at least, in the developed countries; since we know that concentrated ownership is the norm around the world, even for industrialized economies (Shleifer and Vishny, 1997; La Porta et al., 1999). However, we should bear in mind that the sample consists of the 10 largest banks in each country, and we expect firm size to be negatively connected to ownership concentration (Demsetz and Lehn, 1985). In addition, they also show that concentration of ownership is negatively related to stronger legal protection of shareholders rights. Concerning other governance aspects, both stronger legal protection of minority shareholders and the concentration of cash flow rights boost bank valuations, while bank regulations and supervisory practices have little impact on them. Furthermore, concentrated cash flow rights reduce the impact of legal protection on valuations. As a result of this, they suggest a stronger legal empowerment of private investors as a mechanism to boost bank valuations.

Another particularity of the governance of banking firms is the frequency with what they are owned by the government. According to La Porta et al. (2002), government

ownership and control of banks is large and omnipresent around the world. By order of relevance, we will first find French civil law and socialist countries, followed by German and Scandinavian law countries and in the last place, common law countries and Japan<sup>11</sup>. On the other hand, poor countries, with interventionist and inefficient governments and little protection of property rights, present higher government ownership of banks. Finally, these authors argue that government ownership of banks causes slower subsequent financial development and diminishes the future economic growth. This way, their provided explanation would be in line with the "political" view of government participation in financial markets that states that the aim is promoting its goals through project financing and originates lower economic efficiency (Kornai, 1979; Shleifer and Vishny, 1994), and in opposition to the "development" view (Gerschenkron, 1962; Myrdal, 1968), that says that government ownership is needed for economic growth.

One more argument in favor of the specificity of the governance of banks can be found in Thomsen and Pedersen (1997), since their investigation supports the *industry effect* on the ownership structures, hence, on corporate governance. They maintain that nationality and institutional differences are as relevant as other economic factors, such as size or industry, as determinants of the ownership structure of the corporation, and, consequently, of its governance and behavior. To support their argument, they confirm five initial hypothesis: big international differences in ownership structures exist, even after controlling for industry and size; a well-developed stock market (measured by size and liquidity) corresponds to a higher degree of ownership dispersion; the degree of

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<sup>&</sup>lt;sup>11</sup> They use the division of countries by the origin of their commercial law elaborated in a previous work (La Porta, Lopez-de-Silanes, et al.(1998))

dominant minority ownership<sup>12</sup> is positively correlated to the concentration in the banking sector; there is a positive relationship between the extent of private majority ownership and the existence of dual class shares with different voting rights; and formal and informal barriers to international capital affect negatively the degree of foreign ownership. According to these results, not only can we expect the corporate governance of banks to be different than that in other industries, but we could also imagine the existence of national differences among the governance systems of banks across the EU countries.

Another element of a corporate governance system that varies with company size (positively), industry and country is the compensation received by the executives (Murphy, 1999). Concretely, the financial services sector presents higher levels of pay for its CEOs than other sectors of the economy, and even among European countries we can observe very different practices. According to Murphy (1999), firms in regulated industries (including financial services firms) present lower pay-performance sensitivities than other corporations belonging to other economic sectors.

Confirming Murphy (1999), John and Qian (2003) compare CEO compensation and pay-performance sensitivity for two samples of US commercial banks and manufacturing firms. Through multiple regression analysis they obtain lower sensitivities for banks, which they attribute to the presence of regulation and the higher leverage. Furthermore, they observe that sensitivity declines with bank size. These results confirm a previous theory on bank regulation and top management compensation (John et al., 2000) that maintained that management incentives should be regulated since they could be more efficient than capital regulation to monitor risk-taking. They recommend taking into

<sup>&</sup>lt;sup>12</sup> Dominant minority ownership corresponds to companies where the largest owner holds between 20% and 50% of the votes.

consideration these sensitivities when defining the deposit insurance premiums and establishing other regulatory procedures in banking.

Finally, if we focus on the legal aspects, we have seen that the degree of investor protection provided by the country's legal institutions appears to have a positive influence on bank valuations, at the same time that it is related to lower concentration of ownership in banks (Caprio et al., 2003). La Porta et al. (2001) showed us that the different legal systems have a role as well in determining the degree of government ownership and control of banks.

In addition, the commercial law present in the different countries is also partly responsible of the observed national patterns in board and ownership structures. On the one hand, through the definition of crucial characteristics, such as the participation of employee representatives, the type of board structure to be used by banks or the existence of government representation on boards, corporate law influences the board of directors' design and functioning (Wymeersch, 1998; Allen and Gale, 2001). On the other, by placing differing restrictions on the holding of shares both by financial and non-financial corporations, the countries' legal institutions have also an important role in determining ownership patterns (Allen and Gale, 2001). However, and despite the importance of this issue to better understand and compare corporate governance practices across countries, the academic literature has so far been sparse in analyzing its implications for the corporate governance of banks.

## 4. Bank governance and performance

## 4.1 What is performance?

Firm performance is a very ambiguous concept that has different dimensions, as well as there are many ways to measure it depending on the perspective chosen. We should always keep in mind that the adequate definition and measure of performance might be dependent on the industry we look at. In our case, the special social responsibility of banks makes their performance a much broader issue than just firm profitability.

Venkatram and Ramanujam (1986) classify the different approaches to the measurement of business performance, which they consider to be a subset of the broader domain of organizational effectiveness. In this scheme, business performance would consist on financial plus operational performance. Financial performance uses financial indicators to represent the economic achievements of the firm, assuming this way the superiority of financial goals. Among these indicators, we would find growth sales, profitability (ROA, ROS, and ROE), earnings per share and market measurements (market-to-book value, stock returns and Tobin's Q). On the other hand, operational performance broadens the concept of business performance by including the key operational success factors that might lead to financial performance, such as, market share, product quality, marketing effectiveness, new product introduction and manufacturing value-added.

Adopting a corporate governance perspective, we should start by facing the shareholders' value *versus* stakeholders' value dilemma. If we believe that the purpose of corporate governance is to protect exclusively the interest of shareholders (like in the typical Anglo-American model), then we would use some of the traditional financial measures to determine performance. On the contrary, we could advocate for a governance system that would take into account the problems of other constituencies, such as employees, creditors, communities in which they operate... (better protected in the German system). In this last approach, corporate social responsibility becomes an

important issue to explain bank performance, and other measures like entity survival or growth might appear to be more relevant.

In the particular case of banks as highly leveraged institutions things may be different. Otherwise defendants of the shareholder value maximization model, Macey and O'Hara (2003) advocate for a more central role of debtholders interests in the corporate governance of banks. They study the corporate governance problem of banking firms from a legal perspective while emphasizing and broadly explaining its specificity. As a result of the analysis, they recommend US banks to move towards the Franco-German corporate governance model, meaning that directors should also owe fiduciary duties to creditors; but still keeping the US system in which violation of fiduciary duties by directors implies a real litigation risk. In this hybrid model, bank managers should always take solvency risk into consideration when making a decision. For non-banking firms the authors believe in the superiority of the American corporate governance model.

In a survey of recent empirical literature on corporate governance, Börsch-Supan and Köke (2000) suggest that firms should ideally utilize the firm's equity value or total factor productivity to measure performance. In particular, they argue that Tobin's Q, the main measure for firm performance in most of the studies, might be the best measure available, though its use implies the assumption that current market value of shares coincides with the real value.

# 4.2 Determinants of bank performance

The literature that studies the determinants of bank performance from a general perspective is primarily characterized by its paucity. Particularly, the theory on this issue is extremely sparse. Outside the banking literature, it is worth mentioning the model suggested by Lenz in 1981, since it will be used later on in some empirical studies on

bank performance. Lenz (1981) makes a comprehensive and interdisciplinary review of the literature on organizational performance looking for its determinants, and he concludes that it is not likely to find any factors that in a clear, simple and unidirectional way influence performance. What he observes is a "complex network of interdependent elements" where the direction of causality cannot be clearly stated. In his model, environment, organization structure and strategy are the mutually dependent variables especially important to explain organizational performance.

Within the banking industry, Krüger et al. (1992), as cited in Krayenbuehl (1993), develop an integration model of bank performance that consists on the success factors, their interrelation and the coordination factors-environment of the bank. The success factors are elements influencing bank performance, such as effectiveness of leaders, corporate culture, strategy, organizational structure (important for a good implementation of the strategy), systems (electronic data processing and risk control systems) and commitment to achievement of full potential (financial and human commitment to the strategy). Not only these success factors would be integrated, but they also follow a hierarchy. On top of the hierarchy we find the leaders and the strategy. Since boards of directors are the main mechanism to govern the firms, they should be able to control all these factors, focusing especially on the bank leadership and strategy. Here we find a first hint to the relevance of good corporate governance for bank performance.

The empirical studies on the determinants of bank performance do not reach any clear agreement either. While the main factors that are shown to be positively correlated to the bank's financial performance are market power (Short, 1979; Bourke, 1988; Molyneux and Thornton, 1992), deposit growth and size in the case of newly chartered banks (Arshadi and Lawrence, 1987) and corporate social performance (Simpson and Kohers, 2002); the results for other variables, such as capital scarcity ( with a negative

sign coefficient in Short, 1979, but positive in Bourke, 1988, and Molyneux and Thornton, 1992), government ownership (negative in Short, 1979, and Bourke, 1988, but positive in Molyneux and Thornton, 1992) or capital structure (Molyneux and Thornton, 1992) remain unclear.

Adopting a different perspective, Tainio et al. (1991) follow Lenz's approach in their study of a sample of the largest Finnish saving banks at the beginning of the 1980s. After identifying three performance groups and doing case studies, they did not find any specific combination of environmental and organizational variables that directly influenced performance, but the performance of these banks turned out to be very 'path-dependent'. For them, valid explanations of bank performance have to be dynamic and context dependent, and the focus of managers should be on context-specific processes affecting the path followed by the organization, rather than on single individual factors which will have different effects in different individual paths.

Regarding the existence of economies of scale, two theories of banking firms, the *deposit insurance theory* and the *modern intermediation theory*, predict a positive relationship between bank size and performance. The first of them claims that this is due to differences in regulation, particularly, to the existence of size-related subsidies; while for in the second theory the reason is that large banks are more cost-efficient. Boyd and Runkle (1993) examine 122 large U.S. bank holding companies (BHCs) over the period 1971-1990 and they do not find any evidence of such a relationship between size and market valuation as measured by Tobin's q. The empirical research on this issue seems to agree on the existence of economies of scale in banking only up to a certain point, from where the sign of size impact of performance is not clear.

## 4.3 Corporate governance as a determinant of bank performance

In the second section of the paper we reviewed the most important findings on the relationship between the corporate governance mechanisms and the performance of the firm. The third section explained the special characteristics of banks that could have an effect on their corporate governance, as well as it surveyed the empirical evidence on the issue showing the existence of notable differences in the corporate governance structures of banks in relation to those in place in other industries. If in fact the corporate governance problem and the corresponding governance structures are different in banking, as argued in Section 3, the question that arises then is whether these differences may moderate the relationship between the main corporate governance mechanisms and bank performance. This section reviews the literature that studies this relationship in the particular case of banks to find out if the behaviors seen in non-financial firms are confirmed, or instead, we are able to observe any particularities in the relationship.

As we will see, most of the studies that investigate the performance effect of the different governance mechanisms focus on US banks and study primarily board characteristics and managerial pay. However, we do find some international comparisons that examine the banks' ownership structure and the impact of regulation.

#### 4.3.1 Boards of directors

If we start by looking at the *size of the board*, Simpson and Gleason (1999) find no effect of the number of directors on the probability of financial distress. However, a later study by Adams and Mehran (2005) identifies a significant positive correlation between board size and bank performance, as measured by Tobin's Q. This positive effect of larger boards would be in opposition to most previous findings for other industries (Hermalin and Weisbach, 2003).

Regarding the presence of *independent directors*, these same authors find no significant relation between the degree of board independence and performance (Adams and Mehran, 2005), agreeing with previous studies by Pi and Timme (1993), Griffith et al. (2002) and Simpson and Gleason (1999), this latter studying the effect of board independence on the probability of financial distress.

Another important characteristic of the board is the so-called *CEO duality*. In the cases where the CEO is also the chairman of the board (dual CEO) we could expect increased governance difficulties. This is at least what Pi and Timme (1993) presume in their study of a sample of large publicly traded U.S. commercial bank for the years 1988-1990. The results they get appear to confirm the expectations: banks with a dual CEO underperform banks where CEO and chairman of the board are two different persons. Looking at it from a different perspective, Simpson and Gleason (1999) find that CEO duality is related to a significant lower probability of financial distress. Their interpretation lies on the idea that a powerful dual CEO-chairman of the board would take less risky decisions in order to protect his position, therefore, they suggest, CEO duality could be encouraged by regulators wanting to avoid banks' financial distress. Finally, Griffith et al. (2002) provide evidence on the insignificance of the relationship.

In summary, the literature on the relationship between the studied board characteristics and bank performance seems to agree on the insignificance of *board independence* for performance, but disagrees about the effects of *board size* and *CEO duality*, that remain less clear.

# 4.3.2 Ownership structure

Two US studies find conflicting results regarding the effects of an increase in the level of ownership concentration on bank performance. If in Pi and Timme (1993) bank

performance is shown to be unrelated to the level of blockholdings, Prowse (1995) postulates the goodness of ownership concentration, claiming that large shareholders are more motivated to monitor the bank's management, and as a proof of that, he shows that banks that present lower levels of ownership concentration are more likely to go through an intervention by regulators.

In this same line, Caprio et al. (2003) provide international evidence of higher levels of concentration of cash flows rights having a beneficial effect on bank valuations around the world, being this relationship stronger in countries where the legal protection of investors is poorer.

Most of the studies about the role of managerial equity ownership in corporate governance debate between the existence of an inverse relationship between managerial ownership and bank performance (the *management entrenchment* hypothesis), both measured in accounting and market terms (Griffith et al., 2002), and the possibility that managerial shareholdings would motivate managers to work harder, thus increasing the firm's financial performance (the *convergence-of-interests* hypothesis (Pi and Timme, 1993).

Following Demsetz and Lehn (1985), Hirschey (1999) tests whether bank performance might be influenced by size, growth, leverage and, possibly, managerial equity ownership. For a sample of U.S. commercial bank holding companies (BHCs) during the 1992-1996 period, he finds that after controlling for firm size, there is no evidence of poorer performance among closely-held banks. Since high managerial equity ownership is only typical for small banks, he suggests that the inferior performance of closely-held banks could be due to scale inefficiencies. This explanation would be in line with Demsetz and Lehn (1985), who found ownership concentration to be dependent on firm size, but not significantly related to performance. Providing further support to this

idea, Simpson and Gleason (1999) show that the shareholding owned by the CEO and other officers and directors had no significant effect on the bank's performance

The findings of Pi and Timme (1993), however, suggest the existence of different implications of managerial shareholdings for dual and non-dual CEOs. This way, they find that when the CEO is the chairman of the board, CEO ownership is insignificant or significantly negative related to performance; while for banks with a nonchairman-CEO, they obtain a significantly positive link between the two variables.

Making use of very different methodologies, De Young et al. (2001) and Griffith et al. (2002) reach both the conclusion of a non-linear relationship between managerial shareholdings and bank performance. De Young et al. (2001) examine this relationship at small, closely-held U.S. commercial banks that are mostly not publicly traded, presenting a broad range of ownership and management arrangements, and they find that hiring a professional manager can potentially increase small closely held bank performance. Furthermore, the likelihood of this better performance increases when managers own shares in the company, but only up to a certain level when management would become 'entrenched', showing that there is an inverted U-shaped relationship between hired managers' shareholdings.

Using data from the largest U.S. BHCs for the years 1995-1999, Griffith et al. (2002) find that performance of commercial banks is related to CEO ownership, but again, this relationship is not always positive. Bank performance increases until CEO ownership reaches the 12 percent level and decreases until 67 percent is achieved. This way, for a small share of CEO ownership, we would observe the effects predicted by the alignment-of-interests hypothesis (manager's interests converge with shareholders), while when CEO ownership exceeds a certain level, its positive effects on performance are offset due to the management entrenchment hypothesis (the powerful manager focus now on

protecting his job and maximizing his utility, neglecting shareholders interests). The rise in value experienced at levels of ownership above 67 percent is interpreted by the authors as the marginal impact of convergence of interests being greater than that of entrenchment once majority ownership is obtained. In their study, they use economic measures of performance, such as Economic Value Added (EVA), Market Value Added (MVA) and Tobin's Q.

### 4.3.3 Incentive pay

The paper by Barro and Barro (1990) is one of the first to study the relation between pay, performance and turnover of CEOs in the banking industry. They use data from large commercial U.S. banks over the period 1982-1987 and employ a logit regression model. Their findings suggest that changes in CEO pay are positively related to performance (both measured in accounting and market terms), though the sensitivity of this relationship declines over the CEO tenure. CEO compensation is not affected by regional average performance, only by relative performance. For newly hired CEOs, the pay is positively influenced by bank size. In addition, they observe a positive link between CEO turnover and age (from the early fifties on). Finally, they obtain a negative relationship between CEO turnover and stock returns, but not with accounting earnings; this might be explained by the possible manipulation of accounting returns, they argue.

Corroborating the positive sign of pay-performance sensitivities in the banking industry, Bosworth, et al. (2003) make use of three different measures of efficiency, in addition to profitability, in order to measure the performance of a sample of US BHCs. Furthermore, their results seem to suggest that executive compensation packages cause large BHCs to expand beyond their optimal size.

Despite the positive sign, the observed pay-performance sensitivities are lower in regulated industries, and among them, banking, when compared to corporations belonging to other economic sectors (Murphy, 1999). As a consequence, several studies investigate these pay-performance sensitivities in banks taking into account the presence of regulation (Crawford et al., 1995; Sigler and Porterfield, 2001; John and Qian, 2003).

Since major deregulation took place in the U.S. banking industry during 1981-1982, Crawford, et al. (1995) divide their sample into the regulated subsample (1976-1981) and the deregulated subsample (1982-1988) and find that pay-performance sensitivities (for all CEO compensation components) increase substantially in the second period as compared to the previous one. The reason behind these higher sensitivities, they argue, would be the increased need of CEO monitoring by the bank shareholders after deregulation. In addition, they provide evidence showing that CEO pay-performance sensitivities are greater for riskier banks, giving further support to their initial hypothesis saying that deregulation increases CEO discretion. Consequently, CEOs with their compensation tied to performance would after deregulation engage in riskier activities that will report higher returns.

The impact of deregulation in pay-performance sensitivities is also investigated by Sigler and Porterfield (2001). Theses authors decide to focus on a sample of publicly traded commercial U.S. banks over a period after the deregulation of the banking industry (1988-1997), so that regulatory requirements do not perturb the sensitivity of the relationship, and they find, confirming previous results by Barro and Barro (1990) and Crawford et al. (1995), a strong positive link between changes in CEO total compensation and bank performance.

Finally, John and Qian (2003) compare CEO compensation and pay-performance sensitivity for two samples of US commercial banks and manufacturing firms, confirming

the existence of lower sensitivities for banks, which they attribute to the presence of regulation and the higher leverage. Furthermore, they observe that sensitivity declines with bank size.

### 4.3.4 Legal aspects

As we have seen, whereas legal protection of minority shareholders has been shown to boost the valuation of banks (Caprio et al., 2003), in agreement with findings for other sectors of the economy (La Porta et al., 2000), bank specific regulations and supervisory practices seem to have little impact, if any, on them (Caprio et al, 2003),

Supporting Caprio et al. (2003) with new evidence on the little evidence of bank regulations on performance, Barth et al. (2003) address key issues in banking supervision: its structure (single *versus* multiple supervisors, central bank as a supervisor), scope (whether the banks' supervisor should supervise as well other financial services industries), and independence (the degree to which supervisors are influenced by the political and economic power), trying to find out if there are related to bank profitability. Their results show a weak impact of the structure of supervision on bank performance (particularly, the single-supervisor system might, but only might, enhance bank profitability). No strong significant relationship is found. This suggests that the selection of the right supervisory structure may be oriented to improve other aspects of the banking system: individual bank safety and soundness and the stability and development of the banking system.

### 5. Summary and conclusions

In the new deregulated EU banking scenario, where an extra pressure is set on banks' profitability, the design of the right corporate governance system is a must for banks that want to be successful in the new competitive environment.

But if banks are unlike other firms, as it has been long postulated by the economic literature, we may also wonder whether this singularity affects their corporate governance, and thus, makes necessary specific research that investigates the governance mechanisms in the particular case of the banking industry. This paper reviewed the academic literature that studied the corporate governance problem in the specific case of banks, analyzing its different features and the argued reasons behind them, as well as the role of the governance system for good bank performance.

Section 2 broadly defined the corporate governance problem and pointed out the different mechanisms to solve it, describing as well the principal governance models existing internationally. In addition, we looked at the theory and empirical evidence on the relationship between the main instruments of corporate governance and firm performance.

The remaining part of the paper tried to answer the following three main questions:

- (i) Why are banks different? According to existing research, different factors, such as the exhaustive regulation in the sector, supervision and control by the authorities, the particular fiduciary relationship between the bank and its clients, its fragility, the systemic interest to avoid bank failure, the high debt ratios in the sector and the existence of the deposit insurance fund, contribute to the specificity of the banks and thereby influence their corporate governance.
- (ii) What is different about the corporate governance of banks? The literature on the corporate governance mechanisms in place in banks seems to point to the existence of

substantial differences in relation to other sectors. In particular, the empirical evidence available indicates the following:

- Banks in the developed countries present significantly more dispersed ownership structures that firms in other sectors of the economy. As expected, the lowest concentration is found in the Anglo-Saxon world. Banks all over the world present high government ownership and control.
- The size of the board, the proportion of independent directors, the frequency of board meetings and the number of committees seem to be all of them higher in banking than in the manufacturing sector.
- While the overall level of compensation is higher for bank executives, CEO shareholdings (both absolute and relative to total compensation) are observed to be smaller in banking firms.
- Takeovers are less frequent in banking due to the existence of regulatory barriers and delays.
- (iii) What works for banks? As we could see in the fourth section, the group of factors that explain the performance of banks appears to be very heterogeneous and the empirical studies do not reach any clear agreement. Focusing exclusively on the elements of a governance system as determinants of performance, there is some agreement in the literature concerning the following points:
  - More concentrated ownership structures are shown to have a positive impact
    on bank valuation, while executive shareholdings seem to present a bellshaped effect on performance.
  - The existing results on board dimensions point towards a positive effect of board size on performance, but are inconclusive about the possible impacts of

board independence, the existence of a dual CEO-chairman of the board or the role of political directors.

- The sensitivity of the relationship between executive pay and bank performance is confirmed to be positive. Its size increases with the risk of the bank and deregulation, and decreases over the CEO tenure. Furthermore, executive compensation packages can provoke the growth of large banks above their optimal scale.
- On the influence of regulation, previous research suggests stronger legal
  protection of minority shareholders would boost bank valuations, while bankspecific regulations and supervisory practices seem to have little impact on
  them.

In summary, this paper tried to make clear the important role of good governance for the success of the corporation, in particular if this corporation is a bank; as well as it investigated the different governance issues and practices when it comes to banking firms.

Can we then conclude, based on existing research, that the corporate governance of banks is fundamentally different than in other industries? Overall, it seems that both the presence of regulation and the nature of their business affect the corporate governance problem in banks and this is reflected in the different governance structures observed.

But the question is still open as to what extent the functioning of these corporate governance mechanisms and their relation to performance is different in banking compared to non-financial firms, as well as what would be the specific causes behind the different behaviors. While more research is needed on the underlying reasons, the initial findings on this matter appear to show the existence of particularities in the relationship to performance; further emphasizing that if the governance problem is different in the banking industry, we will not be able to successfully apply our knowledge on the

governance of industrial firms to solve it. As an example, let's take the restrictions to keep ownership concentration or board size under certain levels, both regulators and investors can benefit from being aware that, while these measures might perhaps be helpful in other settings, their application with the objective of improving the bank's governance and, thereby, performance does not have any foundation on existent research. Furthermore, while supervisory activity might be beneficial for the general economic stability, its use has not been shown to increase the market value of banks, as the improvement of the legal protection of investors would, according to the existing literature.

However, the literature leaves unsolved some of the most publicly debated issues, such as the true value of enhancing the independence of the board, the impact of having a dual CEO/chairman of the board, the actual role played by political directors, the influence of the governance system, or the question of whom should ideally be the object of the bank directors' fiduciary duties.

This last discussion stems from the banks' highly leveraged condition and entails two important implications for the design of an efficient corporate governance system from the regulators' point of view. First, it can be argued that debtholders interests should receive greater protection, meaning that directors should owe fiduciary duties to them as well as to shareholders, and bank managers should always take solvency risk into consideration when making decisions. Second, some authors have proposed the regulation of management incentives as a more efficient tool than capital requirements to monitor risk-taking by the bank

Finally, most of the work reviewed here deals with US and, sometimes, Japanese banks. Given the existence of different governance systems and the particular impact that institutions have in the banking sector, only further research on the corporate governance of banks across countries will allow us to tell whether these observed specific features are

confirmed internationally; or, if this was not the case, the different governance solutions respond to the existence of diverse national institutions or even individual firm-specific needs.

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# Essay 2

# A cross-country study of corporate governance in

# **European banks**

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#### **Abstract**

A number of studies have shown important international differences in the corporate governance of non-financial firms. Diverse features, such as regulation, supervision, capital structure, risk, fiduciary relationships, ownership, deposit insurance..., make banking firms special and thereby influence their corporate governance. Using new data on boards of directors, this paper makes a cross-country study of different board and ownership variables for a sample of publicly-listed banks in Western Europe. After confirming the existence of national patterns in the board and ownership structures, we discuss the role of the legal system in explaining the observed international differences. Finally, the paper investigates the possible link between board and ownership characteristics and financial performance. The findings suggest that the different governance mechanisms might work differently in different institutional environments.

JEL classification: G34; G32; G21

Keywords: Corporate Governance; Board Structure; Ownership Structure; Banks;

Europe

### 1. Introduction

There is an emerging and rapidly growing stream of literature that focuses on international comparisons of different characteristics in banking<sup>13</sup>. According to Barth et al. (2004), the general motivation for these studies would be, among other factors, the belief that "international comparisons can reveal trends and norms that might be useful in debates about national banking and financial policies, and an awareness of the banking and financial systems in other countries can promote the realization that national financial policies are likely to have an impact across borders" (Barth et al., 2004, page 2), and because "the development of the financial system is crucial for the development of the economy as a whole" (Barth et al., 2004, page 2).

In this context, despite the well-acknowledged international differences in corporate governance (Shleifer and Vishny, 1997) and the industry-specificity of its mechanisms (Demsetz and Lehn, 1985; Romano, 1996), the corporate governance of banks has not received all the attention that such a crucial issue (Caprio and Levine, 2002, Macey and O'Hara, 2003, and Bushman and Smith, 2003) could deserve.

If the ownership structure aspect has been touched upon in previous work (Caprio et al., 2003), and related topics such as regulation, supervision and the degree of transparency of bank operations have been also studied (Barth, Nolle and Rice, 1997; Barth, Santos and Haubrich, 2003; and Barth, Caprio and Nolle, 2004, respectively), the lack of comparative studies on the board of directors of banks is remarkable.

The purpose of this paper is twofold. On the one hand, the first part of the paper aims to cover this gap in the literature by making a cross- country study of different corporate governance variables across seventeen Western European countries in the year 2004. The new data allow us to examine for the first time national and legal family

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<sup>&</sup>lt;sup>13</sup> See Brown and Skully (2002) and Barth et al. (2004) for excellent reviews of this literature.

(following La Porta et al., 1998) patterns in the board of directors of publicly-listed banks in Europe. In addition, the ownership structure of the banks will also be analyzed.

The main findings confirm the existence of highly significant nation and legal system effects in the corporate governance of European banks, both for the board of directors and the ownership structure. These results hold even after controlling for bank size. In order to interpret this "nation effect", we point at the countries' institutions as the main factor behind these national patterns. Through the implementation of specific regulation, which is more obvious in the case of banking, each state determines in part the configuration of the governance structures present in it.

On the other hand, the second part of the paper is devoted to the study of the relationship between our corporate governance variables and financial performance in European banks. Some have argued that the difficulty of uncovering the real effect of corporate governance on performance might be partly due to the existence of different optimal governance models across industries (Gertner and Kaplan, 1996; Romano, 1996; Hermalin and Weisbach, 2003). In particular for banking, several studies have made a case for its specificity (Macey and O'Hara, 2003; Adams and Mehran, 2003; Levine, 2003; Caprio and Levine, 2002). With this in mind, the aim of this second part of the paper is to better understand the functioning of the corporate governance mechanisms and the possible existence of any particularities as compared to the results obtained for other industries. In order to do this, we run ordinary least squares regressions to investigate the link between board and ownership characteristics and different measures of financial performance. Our results document a significant negative relationship between the size of the board and bank performance, as measured both by Tobin's Q and return on assets.

Furthermore, focusing on the idea that the diverse governance mechanisms might, not only look differently, but, work differently in different institutional environments

(Goergen, 2007; Lins, 2003), the last section hypothesizes that the tradition of the legal system might have an impact on the way board size and/or independence are related to bank performance. Therefore, we include in the regressions the interaction effects between the legal family dummies and board characteristics. The results corroborate our initial hypothesis of the existence of relationships of divergent effect across systems. Most interestingly, the coefficient of board independence is highly significant and negative in the English family; but it has an overall positive effect in the other three. In addition, coefficients of opposite sign, but smaller in magnitude, are obtained in the case of board size, pointing at a negative link to performance in Continental Europe, while positive in the English family. These findings suggest that the different governance mechanisms might work differently in different institutional environment. Variations in the levels of investor protection granted in each legal system, together with the different roles played by board directors across countries are discussed as two possible reasons behind our findings. Finally, different robustness checks are carried out to confirm the validity of the results.

The paper is structured as follows. Section 2 reviews the previous literature on international corporate governance, paying special attention to comparative studies on ownership and board structures, and in particular, to those that focus in the banking industry. Section 3 describes the data characteristics and sources. Section 4 presents the ownership and board variables of the banks in the sample and analyzes the existence of national patterns in their corporate governance. Section 5 makes an exploratory study on the relationship between these key board and ownership characteristics and the financial performance of the banks. Section 6 investigates how this relationship between board characteristics and the banks' financial performance is affected by the tradition of the legal system. Finally, section 7 concludes.

#### 2. Literature review

A number of studies have shown important national differences in the corporate governance of firms. Shleifer and Vishny (1997) are authors of one the first and most comprehensive reviews of the theoretical and empirical research on corporate governance, where they take account for different governance models across countries. They adopt an agency perspective, and focusing on the separation between ownership and control, they define corporate governance as "the ways in which the suppliers of finance to corporations assure themselves of getting a return on their investment" (Shleifer and Vishny, 1997, page 2). Countries make use of different mechanisms to solve this problem. The United States and the United Kingdom have a governance system characterized by a strong legal protection of investors and the lack of large investors, except when ownership is concentrated temporarily during the takeover process. In Continental Europe (particularly, Germany) and Japan, corporate governance relies more on large investors and banks to monitor managers; legal protection for investors is weaker and hostile takeovers very uncommon. What we see in the rest of the world is heavily concentrated ownership in families, some outside investors and banks; and an extremely limited protection of investors. Legal protection of investors and concentration of ownership are considered complementary approaches to corporate governance. All successful governance models (Anglo-Saxon, German or Japanese) are characterized by protecting efficiently at least some kind of investors.

Another excellent and more recent survey of international corporate governance research is provided by Denis and McConnell (2003). They differentiate between two generations of studies: the first one would be based on individual country studies and follow the patterns of previous US corporate governance research; the second generation

compares corporate governance systems across countries acknowledging the impact of the legal system in determining the structure and efficiency of corporate governance.

This second generation of international corporate governance research is initiated with the publication of "Law and Finance" by La Porta et al. (LLSV, 1998), where they highlight the role of the different legal systems in shaping the corporate governance model prevalent in a certain country. After dividing the countries according to their legal tradition (common law or civil law – this one composed by the German, Scandinavian and French families), they show that investors are better protected in common law countries than in civil law countries; and particularly, within civil law countries, the lowest level of investor protection is provided by countries belonging to the French legal family. They also suggest the possibility that the high level of ownership concentration observed in publicly traded companies around the world could be a response to poor investor protection.

Related to this paper, a number of studies appeared that find evidence of the positive relation between a high degree of investor protection and the use of equity finance (LLSV, 1997), lower ownership concentration (La Porta et al. (LLS), 1999; Himmelberg et al., 2002), lower government ownership and control of banks (LLS, 2002), higher dividends payouts when firms have poor reinvestment opportunities (LLSV, 2000), and higher Tobin's Q ratios (LLSV, 2002). Furthermore, it seems that in countries with less legal protection of shareholder rights a higher concentration of ownership presents a stronger positive relation to firm performance (Lins, 2003) and the existence of good corporate governance practices (as measured by a governance quality score constructed by the authors) would have a more significant positive impact on the firm's Tobin's Q (Durney and Kim, 2002).

In a more recent piece, Djankov et al. (2008) revise and broaden the concept of investor protection used in LLSV (1998) by measuring the legal protection of minority investors, not only against the expropriation by the firm's managers, but also against self-dealing by controlling shareholders. The findings generally support previous results in LLSV (1998) on the superiority of common law countries to protect investors, in remarkable contrast to the French civil law nations.

The ownership structure of companies is one of the aspects of corporate governance that has been broadly treated in the international comparative literature. As we have said, Shleifer and Vishny (1997) in their review of individual country studies had already observed differences in ownership structures around the world, where large investors would be the main solution to corporate governance in most countries, with the exception of US and the UK. But not until a couple of years later, LLS published the first cross-country study (including 27 developed economies) on the ultimate ownership structure of large corporations (LLS, 1999). They found that, contrarily to Berle and Means idea of the modern corporation (Berle and Means, 1932), widely-held firms were the exception rather than the norm and this would be largely determined by the level of investor protection in the economy. This way, in countries with low shareholder protection the typical firm would be controlled by families or by the State; while dispersed ownership would only be more frequent where the investors are better protected (common law countries). This, they concluded, would give rise to another agency problem: protecting minority shareholders from expropriation between controlling owners.

Faccio and Lang (2002) offer the most comprehensive study to date on ultimate corporate ownership in Western Europe, where they also explain the mechanisms that separate cash flow rights from control rights present in European firms. Corroborating the

results of LLSV (1999), they find dispersed ownership is more common in the UK and Ireland, while most firms are controlled by families in continental Europe. Financial firms, together with large firms, are found to present lower levels of ownership concentration, though their ownership structure is still subject to national patterns.

The existence of international differences in the effect of the level of ownership concentration in firm performance has also been touched upon in the literature. The results obtained by Thomsen et al. (2006) for a panel of large European and US companies suggest the existence of a system effect in the relationship between blockholder ownership and firm value (using Tobin's Q). While in the US and the UK they find no evidence of causality either way, confirming previous research by Demsetz and Lehn (1985) and Demsetz and Villalonga (2001); in Continental Europe a strong negative effect of blockholder ownership on firm value is observed, though only significant for firms with a high initial level of blockholder ownership. According to the authors, the high levels of blockholder ownership in continental Europe would have reduced the value of the firm, at least from the viewpoint of minority investors. This would contradict previous results obtained for Germany (Gorton and Schmid, 2000), who find the performance of German firms to be positively related to higher levels of ownership concentration.

And what do international corporate governance studies say about perhaps the most important internal corporate governance mechanism (Jensen, 1993), namely, the board of directors? Individual country studies already point at differences in the shaping and functioning of the national governance models. For example, according to US evidence, board independence cannot be associated with superior firm performance whereas the size of the board would be negatively related to it (Hermalin and Weisbach,

2001); but for Japan, Kaplan and Minton (1994) show that the appointment of outside directors could slightly improve firm performance.

However, if we look for a multi-country study, the literature is sparse. Wymeersch (1998) focuses on Europe and offers a detailed description of the legal structure of the boards of directors across different countries. There we can see that though in most European nations the boards are unitary as in the US, two tiers (management board plus supervisory board) can be optional, as in France and Finland, or mandatory and include employee representatives in the supervisory board, like in Germany and Austria.

International empirical evidence on boards is found in Andrés et al. (2005), a paper that analyzes the impact of board characteristics on firm performance for a sample of non-financial companies in Western Europe and North America. Their main results show a significant negative relationship between the size of the board and the value of the firm and no significant link between board independence and performance. They find no differential effects among countries or legal families, suggesting the validity of an international approach to study board efficiency.

Most of the studies on national differences in ownership structures and board of directors we have reviewed so far either directly exclude banks from the sample (e.g. Andrés et al., 2005), or they do not make a distinction between financial and non-financial firms (e.g. LLS, 1999; Thomsen et al., 2006). Only Faccio and Lang (2002) control for financial companies in their study, and consequently report a different behavior.

But we know industry is a very important determinant of the corporate governance model, and more if this industry is a regulated one (Demsetz and Lehn, 1985; Thomsen and Pedersen, 1997). Demsetz and Lehn (1985) argue, and test for a sample of

US firms, that the existence of regulation means subsidized monitoring by the government, and therefore it would lead to less concentrated optimal ownership structures. For Europe, important differences in corporate governance across industries for a sample of the largest non-financial companies are shown in Thomsen and Pedersen (1997). At the same time, the paper confirms that big national differences in ownership structures exist even after controlling for industry and size.

Particularly, there have been some very interesting studies that have focused in this sector and suggest that corporate governance is different in the case of banking (Macey and O'Hara, 2003; Adams and Mehran, 2003; Levine, 2003; Caprio and Levine, 2002). According to these authors, there are diverse features, such as, regulation, supervision, capital structure, risk, fiduciary relationships, ownership, deposit insurance, etc., that make banking firms special and thereby influence their corporate governance leading to different governance structures as compared to other industries. We can see it empirically: banks, when compared to industrial firms, have a more dispersed ownership structure (Faccio and Lang, 2002), larger, more independent and busy (meet more often) boards -which also have more committees- (Adams and Mehran, 2003), and the top executives' compensation, while higher, is less dependent on bank performance (Murphy, 1999). Furthermore, we may also wonder to what extent these observed differences may moderate the relationship between the corporate governance instruments in place in banks and financial performance. Despite the need of more research that clarifies the underlying reasons, the initial empirical findings on this issue seem to point towards the existence of some particularities. For example, contrarily to what we would expect, the larger board size has a positive effect on performance (Adams and Mehran, 2005). In addition, the board of directors, despite of being independent and occupied, seems to play

a weaker disciplinary role and its independence has no proven effect on bank performance (Prowse, 1995; Adams and Mehran, 2003 and 2005).

However, even though the corporate governance of banking firms is currently the object of intensive research in the U.S.<sup>14</sup> and there are also some studies on this issue for Japan<sup>15</sup>, European banks have not received the same attention<sup>16</sup>. Concerning the ownership structure of banks, we are able to find several very interesting cross-country studies that address it to different extents (LLSV, 2000; Faccio and Lang, 2002; Caprio et al., 2003; Lang and So, 2002). But if we look for previous international comparisons of boards of directors in banks, the picture changes dramatically and previous international comparisons of boards of directors in banks are, to our knowledge, inexistent in the academic literature.

The first cross-country study on the ownership of banks that we are aware of focuses on the frequency with what banks are owned by the government. According to LLSV (2000), government ownership and control of banks is large and omnipresent around the world, particularly in French civil law and socialist countries, followed by the German and Scandinavian families and in the last place, common law countries and Japan<sup>17</sup>. Furthermore, poor countries, with interventionist and inefficient governments

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<sup>&</sup>lt;sup>14</sup> See: Adams & Mehran (2005) and (2003), Griffith et al. (2002), Pi and Timme (1993), Simpson and Gleason (1999), Prowse (1995) and Sigler and Porterfield (2001), among others.

<sup>&</sup>lt;sup>15</sup> See: Anderson and Campbell (2004), De Young, Spong and Sullivan (2001), Van Rixtel and Hassink (2002)

<sup>&</sup>lt;sup>16</sup> An exception to this is Crespí et al (2005). This paper focus on Spanish banks and finds that in a truly competitive environment, the properly functioning of the external control mechanisms (competition, M&As and regulation) would decrease the need for internal control mechanisms and, thus making less relevant the identity of the bank owners.

<sup>&</sup>lt;sup>17</sup> They use the division of countries by the origin of their commercial law elaborated in LLSV (1998).

and little protection of property rights present higher government ownership of banks, which the authors show to be associated to slower subsequent financial development and diminish the future economic growth.

As we said above, Faccio and Lang also address the ownership aspect in a broader study (Faccio and Lang, 2002), where they obtained different ownership structures for the group of financial firms when compared with non-financial firms, as well as differentiated ownership patterns across countries. They consider, though, the aggregated group of financial firms, not making any distinction for banks. But they do not analyze the effect on firm performance, an aspect that will be treated in at least two posterior studies: Caprio et al. (2003) and Lang and So (2002), with divergent results.

Caprio et al. (2003) carry out a comprehensive and detailed study of the legal protection of minority shareholders, bank supervisory and regulatory practices, and ownership structure of the largest banks around the world (covering 244 banks across 44 countries), as well as their interaction to influence bank valuations. They show that only 25 percent of the banks are widely held in the average country. In the presence of a controlling owner, this tends to be a family in more than half of the cases, followed by the State 19 percent of the time. Nonetheless, the picture changes dramatically when we focus exclusively on developed nations. In the Anglo-Saxon world and Japan, more than 80 percent of the banks are widely held. This percentage varies between 13 and 50 percent in Central and Southern Europe, with families and financial corporations controlling also large shares of banks. However, banks in the Netherlands and Scandinavia are predominantly controlled by trusts and foundations. They show that both stronger legal protection of minority shareholders and the concentration of cash flow rights boost bank valuations, while bank regulations and supervisory practices have little

impact on them. Furthermore, concentrated cash flow rights are found to reduce the impact of legal protection on valuations.

Lang and So (2002) also document international evidence on the ownership structure of banks, but in this case, they do not find any significant link between ownership structure and bank performance.

In summary, this section has described the important roles that nationality and industry -and especially, the banking industry- have in determining corporate governance, as highlighted in the academic literature. Given the lack of previous evidence on the board of directors of European banks, the importance of these factors makes manifest the need of specific research on this issue before we can explain its mechanisms and give recommendations for good governance. In addition, a broader international study would also help us to better understand the particularities of the corporate governance in the banking industry in relation to non-financial firms.

### 3. Data and variables

### 3.1 Sample collection and data sources

The data used in this paper was initially drawn from the electronic database *Worldscope* covering all commercial banks (Primary SIC code 602) in it that were listed in the year 2004 in 17 Western European countries (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom). This search gave us a total of 230 banks for which the database contains financial and, in some cases, ownership information. Unfortunately, the presence of missing information for some of these banks reduces the number of observations in each econometric model.

This database was complemented with information regarding the board of directors gathered from a different source, the electronic database *Bloomberg Statistics*.

The number of banks with information on boards is 213.

#### 3.2 Variables

Table 1 and Table 2 present the detailed definitions of all the variables used in this paper. Table 1 contains the definitions of the financial variables plus our measure of ownership concentration (closely held shares), including the financial variables selected to give a good description of sample banks. Table 2 contains the definitions of the variables regarding the board of directors. Below we give a brief description of the main financial and board variables used in the analysis.

#### 3.2.1. Financial variables

In order to determine the financial performance of banks, we use a measure of firm valuation: *Tobin's Q*, and a measure of profitability: *return on assets*.

Tobin's Q, the traditional measure of valuation, is calculated as the ratio of the market value of equity plus the book value of liabilities to the book value of assets.

Return on assets (ROA) is calculated as the ratio of net income to the book value of assets.

In addition, the regressions in Section 4 use control variables for *firm size*, measured as the book value of assets, and *capital structure*, calculated using the capital ratio as defined in *Table 1*.

#### 3.2.2. Corporate governance variables

The corporate governance variables used in the paper describe different characteristics of the board of directors and ownership structure of the banks in the sample.

The variables on the board of directors have been created by the author using information gathered in the electronic database *Bloomberg Statistics* and they are the following:

Board size is the number of board members in each bank. We include all board members in a unitary board system and only the members of the supervisory board when the board has two tiers.

Positions held by director is defined as the average number of positions held by board member in each bank.

Non-executive directors' ratio is used as a proxy for board independence, where independent directors would be those that do not hold an executive position in the company. It equals the proportion of non-executive directors in each bank and is calculated by dividing board size less the number of board directors which are also executives in the company by board size. Whenever there is information of a former executive position in the company, the director is also counted as executive.

Outside directors' ratio is also used to proxy for board independence in a stricter manner. Here, independent directors are those otherwise not employed by the company. It is defined as the proportion of board members non-employed by the bank and calculated by dividing the board size less executives and employee representatives by board size.

With these two variables we try to measure the independence of the board in relation to incumbent management, focusing thereby in the agency problem between the owner (principal) and the manager (agent), as is commonly referred to in the academic literature (Bhagat and Black, 1999 and 2002; Adams and Mehran, 2003 and 2005; Andrés et al., 2005)<sup>18</sup>. Defined in this sense, independent directors are often regarded as something desirable by most Codes of Best Practice<sup>19</sup>, based on the idea that outsiders would be more free to monitor the CEO, being therefore, more diligent in their job to mitigate a corporate governance problem. The difference between the two measures used here lies on the inclusion of employee representatives as independent directors (nonexecutives' ratio) or as dependent of the CEO (outsiders ratio). As in many countries the presence of this type of directors is required by the law, their loyalty to the firm's management should not be taken for granted, and this would make a case for considering them "independent" directors. On the other hand, since the object of our analysis is the governance problem between owners and managers, we can hardly think employee representatives as being driven by the same interests of shareholders, which would justify their inclusion as inside directors.

*Political directors' ratio* is the proportion of political directors in each bank board and is calculated as the ratio of the number of board members that have or have had a job position in politics and/or bank regulation and supervision to board size.

Alternatively, we could think of a board independent of majority shareholders where the conflicts of interest between large owners and minority owners would be the object of the analysis, as pointed out in LLS (1999) and Djankov et al. (2008).

<sup>&</sup>lt;sup>19</sup> For an overview of these codes and their recommendations in the European context, see Weil and Manges (2002).

In order to describe the banks' level of ownership concentration, we use the percentage of *closely held shares* as a proxy for blockholder ownership. Following Worldscope's definition, *closely held shares* represents shares held by insiders. For companies with more than one class of common stock, *closely held shares* for each class is added together (thus, not allowing us to differentiate between cash flow rights and voting rights). It includes:

- Shares held by individuals who hold 5% or more of the outstanding shares
- Shares held by officers, directors and their immediate families
- Shares held in trust
- Shares of the company held by any other corporation (except shares held in a fiduciary capacity by banks or other financial institutions)
  - Shares held by pension/benefit plans

As we can see, this measure includes not only the shareholdings of large outside investors, but also the fraction owned by the management of the firm. Thomsen, Pedersen and Kvist (2006) argue that the broader scope of this measure should not constitute a problem: if insiders own less than 5%, the measurement error will be small; and if they own more than that, then, they should appropriately be included as blockholders.

However, a limitation of this measure is its inability to differentiate between cash flow rights and voting rights, a distinction found to be also present in the biggest banks of most European countries (Caprio et al., 2003). On the other hand, information on the size of the largest blockholding would help us understanding the actual mechanisms in the relationship between ownership and performance, as we would distinguish the implications of having a dominant owner controlling *de facto* the firm, or several blockholders with comparable holdings. Other measures of ownership would be the percentage in the hands of the three/five/twenty largest owners or a Herfindahl index of

the concentration of shareholdings. Likewise, it would be interesting to have access to data on the identity of those largest owners, which might influence this relationship since different types of shareholders may have different goals besides the common goal in shareholder value maximization (Thomsen and Pedersen, 2000).

# 4. Ownership structure and boards of directors of European

#### banks

# 4.1 Descriptive statistics

Tables 3 to 5 contain summary statistics of the financial, ownership and board variables used.

#### 4.1.1. Financial variables

Table 3 displays the basic descriptive statistics of some selected financial variables for our sample. This information covers four areas: bank size (market capitalization, total assets and employees), financial performance (Tobin's Q and three measures of profitability: ROA, ROE and ROIC), growth (loan growth) and capital structure (capital ratio). See Table 1 for a definition of the financial variables included.

Great Britain and Belgium have the largest banks if we look at the three measures of *bank size*, while Norway, Finland and Greece have the smallest.

In terms of profitability, British and Danish banks obtain the highest *ROA*; Irish, Belgium and Swedish banks the highest *ROE*; and Danish, Greek and Swedish the highest *ROIC*. With the lowest profitability we find German and Austrian banks across the three measures.

The banks that perform best as measured by *Tobin's Q* can be found in Great Britain, Spain and Greece. At the other end would be the banks from Norway, France and Austria.

The banks from the Netherlands, Spain and Ireland experimented the highest *loan growth* in 2004; while in Switzerland and Germany they suffered a reduction in their loans.

Finally, if we look at the *capital ratio*, we find the most striking differences between Austria, Finland and Germany with average ratios above 30 %, and Belgium and Greece that lay both close to 10%.

## 4.1.2. Ownership structure

In order to study the degree of ownership concentration of the banks in the sample we look at the percentage of *closely held shares* they present (see *Table 4*).

Only in Ireland have banks a truly dispersed ownership structure with less than 1% closely held shares in average. Sweden (10,25%), Great Britain (16,01%) and Denmark (16,68%) present the next most dispersed structures. They are followed by Italy, France and Greece with less than 25%.

At the other side, German and Austrian banks present the highest degree of ownership concentration, both with means above 70%. Between 40% and 60% we find the Netherlands, Switzerland, Portugal, Spain, Finland and Belgium.

Though we use a different measure of ownership concentration than previous studies (Faccio and Lang, 2002; Caprio, Laeven and Levine, 2003; LLSV, 1999), our results broadly confirm the same general picture with Anglo-Saxon and Scandinavian firms at one end of the ranking with the lowest levels of ownership concentration and

Germany and Austrian at the other end, presenting the most concentrated ownership structures.

#### 4.1.3. Board of directors characteristics

Table 5 shows the basic descriptive statistics of the board of directors' variables across countries. As we previously explained, we look at four different board characteristics: the *size of the board*, the *number of positions* held by a board member in average, *board independence* (using two proxies: *non-executive directors' ratio* and *outside directors' ratio*), and the *proportion of political directors* sitting in the board. (See *Table 2* for a definition of the board variables used.)

If we first focus on the *size of the board*, we can divide the sample into three groups: countries with large boards (above 16 members): Belgium, Austria, Luxembourg, Portugal and France; countries with medium-sized boards (between 11 and 16): Germany, Great Britain, Greece, Ireland and Italy; and finally, countries with small boards (less than 11 members): Norway, Netherlands, Denmark, Spain, Sweden and Switzerland.

Looking now at the number of *positions held by board members*, Belgium is at the top of the ranking with 4.96 in average, followed by Sweden with 3.88. At the other end, we find Danish and Norwegian banks with less than 2 in average.

Germany and Austria have the most independent boards by looking at the percentage of non-executives sitting in their boards. But if we measure the proportion of board members that are not employees of the bank, then it is the Netherlands, Sweden, Spain and Italy that present the highest percentages. As for the most insider-dominated boards, they are the same countries in both measures: Norway, France and Portugal.

With more than 10% of political directors in their boards, Irish banks lead the ranking according to the *political directors' ratio*. They are followed by Denmark and Belgium with more than 5%. On the other hand, this type of directors is practically non-existent in Norway, Luxembourg and Sweden.

If we compare these figures with the results obtained in a previous similar study for non-financial firms (Andrés et al., 2005), we can see that in their paper *board size* is almost one director smaller in average, the difference being larger if we limit the average to the European countries in their study. This would confirm previous findings that pointed at the existence of larger boards in the banking industry when compared to manufacturing firms (Adams and Mehran, 2003). This larger size of banks' boards might be explained by the usually larger size of banking firms themselves, the mandatory inclusion of government representatives as directors of bank boards in some countries (Wysmeersch, 1998), as well as by the likely increased importance that the advisory and networking roles of directors might enjoy in the banking industry, possibly resulting in the incorporation of more members to the board, which would bring along additional knowledge and social connections.

Concerning board independence, the results in Andrés et al. (2005) would suggest a higher independence of boards in non-financial firms when comparing them with our findings. This would be in contradiction with previous research by Adams and Mehran (2003), which found a higher percentage of outside directors in bank boards. One explanation for this could lie in the different measures of board independence employed. Since we take into account previous positions of directors as executives in the company, our definition for board independence becomes stricter that the one used in Andrés et al. (2005) that only looks at current executive positions. This way, the firms in their sample could seem to have more independent boards just due to fact that a former CEO of the

company, for example, would be counted as an independent director, while in our study we would consider the ex-CEO's incentives to be more aligned with those of the managerial team.

### 4.2. Is there a "nation effect"?

As we have just observed, European countries seem to present markedly different corporate governance structures for the banks in the sample. In this section, we want to further analyze the existence of national patterns in the banks' ownership structure and boards of directors and investigate whether we can confirm statistically the differences across countries observed in the previous section. In order to do this, we use one-way ANOVA to test for differences among means of the corporate governance variables across countries (see results in Panel A of *Table 6*). Our initial ANOVA results confirm the existence of a significant nation effect.

However, since we have reasons to suspect that the hypothesis of equal variances may not hold across countries, we run the Bartlett's Chi-square test that confirms a too low probability of having equal variances, thus making our ANOVA results less reliable. Therefore, to enhance the robustness of the results, we perform also the Kruskal-Wallis test, which tests the null hypothesis of equal population medians (see results in Panel B of *Table 6*). This method provides an alternative to the one-way ANOVA when we suspect heteroscedasticiy, making the weaker assumption of similar-shaped distributions within each group (in our case, within each country). We see here that the Kruskal-Wallis test results agree with our ANOVA findings of significant differences in the percentage of closely held shares and the diverse board variables across countries.

Finally, to be sure the size of the bank is not what is driving our results, we run ANOVA tests controlling for bank size, as measured by total assets. We find that the

differences across countries remain highly significant for all the corporate governance variables in the study (see results in Panel A of *Table 6*).

The confirmation of the statistically different patterns of ownership and board structures of banks across Western European countries gives rise to the obvious following question: what is behind the "nation effect"? In general terms, the academic literature has traditionally explained the international differences in corporate governance drawing mainly on economic (John and Kedia, 2006; Doidge et al. 2004), political (Roe, 1991; Bushman and Smith, 2003) or legal factors (LLSV, 1998, 1999).

Focusing in our particular case, while perhaps the variation in the nations' stage of economic development is not too big among the countries in our sample, the size of the economy, through its effect on firm size, could have an effect on the size of the board; yet in our findings the international differences remain significant after controlling for firm size.

Among the political events that could have contributed to determine governance structures, we can find an example in Morck and Steier (2005), where they describe how the National Socialist Government of Germany entrusted banks with proxy voting rights of shares previously deposited in them, and they did so just before nationalizing them, getting this way control over a large portion of the German corporate sector. German banks were privatized after World War II, but the proxy voting remained.

While we believe this debate would be undoubtedly enriched by further research on the political and economic determinants of the national patterns, with the answer to this question probably being a mix of the three approaches; the fact that many of these governance dimensions being studied are subject to national regulation, and more frequently so in the case of banks than in other sectors, makes stronger the case for a legal approach to explain the evidenced national patterns.

To illustrate this, let's take, for example, the case of political directors. According to Danish company law, charters may require the inclusion of a representative of the government on their board (Wysmeersch, 1998); as a consequence, we can see a relatively high presence of *political directors* in Danish banks, when compared to other countries. Contrarily, the low incidence of this type of directors in Swiss banks could be due to the obligation that directors are only allowed to represent the interest of shareholders (Wysmeersch, 1998). Furthermore, the incorporation of political directors would necessarily increase the *ratio of non-executives*, thereby leading, ceteris paribus, to more independent boards where government representatives are mandatory than otherwise.

In this same way, the higher *ratios of non-executives* in the boards of German and Austrian banks can be explained by the prohibition of managers to be a part of the supervisory boards. However, their obligation to incorporate employee representatives, gives them a lower score if we measure independence according to the *outsiders' ratio*.

It is not the objective of this paper to make an exhaustive review of the different types of rules and regulations concerning boards of directors or shareholdings across Europe. With these few examples we solely aim to make clear the preponderant role of the legal institutions to configure the diverse governance mechanisms present in the different countries.

At the same time, if we believe that the variation in board characteristics across countries is, at least partly, exogenous determined, we are finding an additional argument in favour of comparative studies when wanting to investigate the effect of some specific board structures on performance; especially in relation to single country studies, where a bigger part of the variation in the variables could have an endogenous origin. Making use of this advantage, we devote the next section to study the effect of our governance

variables on the banks' financial performance. We specifically take into account the institutional aspects in Section 6, where we analyze the relationship between corporate governance and performance controlling for the influence of the tradition of the country's legal system, as measured by the legal family (following LLSV, 1998).

# 5. Boards, ownership and performance in European banking: an exploratory analysis

The aim of this section is to make a preliminary study of the relationship between the characteristics of the board of directors and the ownership structure of the bank and its financial performance.

As commented earlier, it has been argued in the literature that the difficulty of uncovering the real effect of corporate governance on performance might be partly due to the existence of optimal governance model across industries (Gertner and Kaplan, 1996; Romano, 1996; Hermalin and Weisbach, 2003). Following this idea, by focusing only on one industry we hope to be in a better position to examine the behavior of the different governance instruments.

Furthermore, we have also seen that the corporate governance of banks in particular has been the object of several studies (Macey and O'Hara, 2003; Adams and Mehran, 2003; Levine, 2003; Caprio and Levine, 2002) that seem to agree on its specificity, both as a result of the presence of regulation and the intrinsic characteristics of the banking business<sup>20</sup>. While the different governance structures observed might be seen as an empirical reflection of the argued specificity of the corporate governance of

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<sup>&</sup>lt;sup>20</sup> See *Essay 1* for a deeper discussion of this issue.

banks, we may still wonder to what extent we should expect the existence of fundamental differences in their relationship to financial performance.

In this section, we will use ordinary least squares regressions in order to explain performance as a function of our previously defined board variables (board *size* - employing its natural logarithm<sup>21</sup>-, the *ratio of non-executive directors*, the *average positions held by director*, the *ratio of political directors*) and ownership structure variable (*closely held shares*). To measure firm performance we use a market-based ratio: a proxy of *Tobin's Q*, and *return on assets*, as a measure of profitability.

Since the variances of our variables are unlikely to remain constant across the different countries, we confirm the existence of heteroscedasticity in our data using the Cook and Weisberg's test. Therefore, to deal with this problem we run ordinary least square regressions with robust standard errors (White, 1980)<sup>22</sup>. The results obtained are shown in *Table 7*.

The first model regresses performance on the set of board variables controlling for bank size (proxied here as total assets). See results on columns (A) and (D) of *Table 7*.

The second model includes the *capital ratio* and the variable *closely held shares* (%) as additional explanatory variables (see columns (B) and (E)).

Finally, the third model incorporates *country dummies* to the right-hand side of the equation (columns (I) and (F))<sup>23</sup>.

<sup>22</sup> Furthermore, we build a correlation matrix for each performance measure to be used in the regressions to ensure the data in our sample does not present problems of multicollinearity. The results are satisfactory and we decided not to display the matrices here since for the sake of brevity.

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<sup>&</sup>lt;sup>21</sup> We take the log value of this variable as in Adams and Mehran (2005) and Andrés et al. (2005), among others.

<sup>&</sup>lt;sup>23</sup> We also ran the regressions controlling for *bank growth*, as measured by loan growth (%) and the *level of uncertainty*, as proxied by the price volatility, and using the *ratio of outside directors* instead of the non-

The most interesting result in this table from a corporate governance viewpoint is the negative relationship between *board size* and *bank performance*, significant across the different specifications of the model and our two measures of performance, *Tobin's Q* and *return on assets* (except for column (B)).

Although a negative relationship is commonly found in most research for industrial firms (e.g. Hermalin and Weisbach, 2003; Andrés et al., 2005), the literature specialized on the banking industry has so far pointed towards a distinctive positive association (Adams and Mehran, 2005). Traditionally, the negative sign has been explained by a slower and less efficient decision-making process the larger the board of a firm. In our case, the coefficients are of much smaller magnitude than those found for non-financial firms (Andrés et al., 2005). This makes sense if we think that the positive effects of having many board members (more directors would contribute providing more knowledge, either on the industry or on the community, more social connections, improving the potential for networking or even rent-seeking) are stronger in banking firms, partly compensating for the costs of inefficient decision making, and therefore, weakening this negative relationship. Furthermore, being the logarithm a convex function, the negative impact of the board size on firm performance would decrease as boards become larger (Eisenberg et al., 1998). And as we have seen in the previous section, boards in banking are considerably larger than in other industries. But, how do we explain then the positive sign found for US banks (Adams and Mehran, 2005)? Though we should be cautious with a premature interpretation of the results, a plausible executive directors' ratio as the variable for board independence. In the first two cases, we decided not to include them in the final model because they did not appear to be significant and their inclusion reduced the number of observations available. Concerning the ratio of outside directors, the results obtained qualitatively mimic those got for the non-executives ratio, thus, we decided to leave them out for the sake of simplicity.

explanation could come from the existence of differences in the corporate governance mechanisms across nations or systems. Could it be that this relationship between board size and bank performance was of different nature in the US and in Europe? We leave the question open for the next section.

Moving on to the results obtained for the other board variables, we see a significant positive relationship between the *number of positions held by director* and *Tobin's Q* (equation (A)). We could think that the more positions a director had, the better his/her situation to play a networking role for the board; something that could have a special relevance in the banking industry, and more so in systems where banks are highly integrated with the industry (e.g. in the case of Germany). However, the significance of this coefficient does not hold for the other specifications of the model.

The variable *total assets* was found to be significant initially (columns (A) and (B)), though with a very small and negative coefficient, suggesting the existence of diseconomies of scale in banking. However, this result loses its significance when the model is broadened to include country dummies, and also when we use return on assets as the dependent variable.

All the other variables are not found to have a significant effect on bank performance, but they help improving the overall significance of the model.

# 6. Does the legal family influence the way board size and independence relate to bank performance?

We have stressed the role of the institutional environment in shaping the governance structures present in the different countries in a previous section (Section 4). Several studies show that the nature of financial markets differs significantly across legal systems (LLSV 1998, 1999, 2000). The commercial law present in the different countries

is also partly responsible of the observed national patterns in board and ownership structures. On the one hand, through the definition of crucial characteristics, such as the fiduciary duties of directors and managers, the participation of employee representatives, the type of board structure to be used by companies or the existence of government representation on boards, corporate law influences the board of directors' design and functioning (Allen and Gale, 2001). On the other, by placing differing restrictions on the holding of shares both by financial and non-financial corporations, the countries' legal institutions have also an important role in determining international ownership patterns (Allen and Gale, 2001). Furthermore, the different legal systems existing internationally have been shown to grant different levels of protection to their minority investors (LLSV, 1998; Djankov et al., 2008). In this section, we investigate whether the legal institutions may moderate, not only the existence of differences in corporate governance dimensions across countries, but also the relationship between these board characteristics and the banks' financial performance. To do this, we use the legal families (as in LLSV, 1998) as a way to proxy for the different legal systems found in Western Europe. Ideally, we would also have liked to examine the existence of different behaviors at the country level, where most rules and regulations that could affect corporate governance are directly determined, but that would require a much larger number of observations than are available. By grouping the countries into legal families we account for an important share of the variation of corporate governance structures, as we will show in Section 6.1, as well as we measure the possible influence of the degree of investor protection (as shown in LLSV, 1998; Djankov et al., 2008) and other legal issues (e.g. the fiduciary duties of directors) related to the legal origin.

Section 6.1 offers a description of the main governance variables in each family and investigates the validity of using the legal tradition to explain the variation in the governance variables, confirming the existence of differentiated patterns across groups of countries with different legal origin. Section 6.2 carries out the regression analysis on the existence of different relationships across legal families, and section 6.3 further ensures the robustness of the results obtained.

### 6.1 Board and ownership characteristics across legal families

As said, we start by grouping countries according to the tradition of their legal system (following LLSV, 1996) to see whether we observe substantial differences across families and test if the dissimilarities are statistically significant.

Table 8 shows the descriptive statistics of our ownership and financial variables sorted by legal family. For most variables, we find the English and German families at both ends of the spectrum, while the French and Scandinavian systems would typically lie somewhere in between. The exception would be total assets: while the biggest banks are found in the English law countries, it is Scandinavia who has the smallest, which could perhaps be explained by the smaller country size.

This way, we can see that the banks in the English family present the most dispersed ownership structure (with approximately 13% of the shares being closely held in the average bank), are the best performing ones according to Tobin's Q (1.079) and return on assets (2.032), and finally, and after Scandinavia (with 20%), have the lowest capital ratio (slightly below 21%), showing also a similar capital structure to French banks (slightly above 21%).

As opposed to this, the German family presents the most concentrated ownership structure (with approximately 66% of closely held shares in the average bank), has the

lowest values for both for Tobin's Q (1.025) and return on assets (0.866) and shows a very different capital ratio than the other three families of nearly 32%.

Table 9 displays the descriptive statistics of the board variables sorted by legal family. When making comparisons of the variables across systems, we should keep in mind, however, that the way we defined our board variables already removes some of the systemic differences, i.e. the existence of two-tier boards versus unitary boards, by only considering the supervisory board when the board is two-tiered, a circumstance predominant in the German family, possible in the French and Scandinavian families, and inexistent in countries of English law origin.

If we start by looking at the size of the board, we see that banks in the French family, with an average of 14.375 members, have the largest boards; at the other end of the scale we would find the Scandinavian banks with 8.179 members on average.

Board members in the English law countries enjoy the highest average number of positions held (2.88). They are closely followed by directors from the French family (2.82). The lowest values of this variable are observed in the Scandinavian (1.88) and German families (2.437). This could be at least partly explained by the prevalence of employee representatives in the boards in those countries, a type of board member that is included in our variable and it is not likely to serve in other boards or hold relevant positions in other companies.

Concerning the degree of director independence in the board, the German family presents the highest proportion of non-executives sitting on the board (0.754, this makes sense if we think we are only including here the supervisory boards) and the French family has the lowest (0.601). In all cases, boards are on average dominated by non-executive directors. Contrarily, if we use our other measure of independence,

Scandinavian boards would be on average dominated by insiders (the ratio of outside directors is 0.49), and the most independent boards are to be found now in the English family, with an outside directors ratio of 0.64.

The existence of political directors is most frequent in the English family banks (a ratio of 0.056), and least common in the French (0.018).

In order to find out whether these differences in the board and ownership variables across the legal families are statistically significant, we follow the same procedure as in the previous section (see results on *Table 10*). The ANOVA results (in Panel A of *Table 10*) confirm the existence of differences across the legal families, even after controlling for bank size. Since the Bartlett's test makes us doubt that equal variances are present in our data, we run again the Kruskal-Wallis test, that further confirms the statistically significance of the differences between the legal systems (in Panel B of *Table 10*).

However, we might wonder what the actual power of the legal families is compared to that of nationality in explaining these differences in the corporate governance variables. *Table 11* provides the coefficients of determination corresponding to the ANOVA tests of the board and ownership variables across countries and legal families (F-values previously shown in *Table 6* and *Table 10*), as well as the ratios between these two measures of goodness-of-fit. The results presented here indicate that, while nationality is a better determinant of the governance characteristics of banks (accounting for up to 47% of the variation in the case of percentage of closely held shares, when looking at the R-squared), the legal family stands also for a relatively large part of the variability of the variables, particularly in the case of blockholder ownership and board size, where it explains the main portion of the nation effect.

To confirm the validity of these results, we conducted two additional robustness checks. First, we designed a nested ANOVA model to test the effects of the four different types of legal origin on the governance variables, where nationality was nested with legal origin. The results are reported in Table 12. As expected, nationality comes up as the most important factor, but the legal origin still shows up significant to describe blockholder ownership and board size. Second, we ran further ANOVA tests within each legal family sub-sample to test the significance of the country dummies. Aware of the heteroscedasticity problem in our data, we perform Kruskal-Wallis tests to ensure the soundness of the findings. The combined results from these two tests are reported in Table 13 and show that, while the differences across countries are still significant in the Scandinavian family and for some of the board variables in the countries of French origin, once the legal tradition is accounted for we are not able to observe the existence of a nation effect in the English and German families, nor in the case of the ownership structure and ratio of political directors in the French group. These results provide extra support to the hypothesis of the relevance of the legal systems to explain international differences in corporate governance.

Therefore, given that the legal families seem to capture an important part of the *nation effect* observed in board and ownership structures, we will include them in the following regressions analysis, as a way of controlling for the different institutional environments.

# 6.2. Analysis

In this section we want to investigate the influence of the tradition of the country's legal system on the relationship between the board and ownership characteristics and the financial performance of the bank.

We use the grouping of countries into legal families: English, French, German and Scandinavian, following LLSV (1998), as in the previous section. Then, we run OLS regressions for the three models described in Section 5, but this time we include dummies for the legal families and leave out the country dummies. As measures of bank performance, our dependent variable, we keep the two previous variables: *Tobin's Q* and *return on assets*. The results are displayed in *Table 14*.

The main finding remains unchanged: there is a significant negative relationship between *board size* and performance, as measured both by *Tobin's Q* and *return on assets*, constant across all model specifications.

For the first time we can see now a significant result for the *non-executive* directors ratio (our proxy for board independence): it is positively related to Tobin's Q, though not to our measure of profitability, return on assets. Furthermore, this result only holds for the first specification of the model (column (A)).

Total assets were also found to have significant but very small negative coefficients for Tobin's Q, providing this way more support to the idea of existence of diseconomies of scale in banking.

The dummies for the German and Scandinavian families enter the regression with highly significant negative coefficients, while the dummy for the French legal family keeps the negative sign, but looses almost all significance (only significant coefficients in columns (D) and (E)).

But all this just showed us that the institutional environment, defined in this case as the legal family of origin, has an impact on the performance of banks. While this confirms previous findings (LLSV, 2002), we can still wonder whether corporate governance might work differently across families, and the relationship between the characteristics of the board and performance could be of different nature in the different systems. Therefore, in order to investigate this, we include in the regressions the interaction terms between the corporate governance variables and the legal family dummies in order to investigate for different effects. The results obtained are displayed in *Table 15*.

Perhaps the most striking outcome corresponds to the *non-executive directors' ratio*, our proxy for board independence, which enters the equation very significantly across all model specifications, with negative sign in the English legal family (baseline) and positive sign for the interactions between this ratio and the dummies for the other three legal families. Though the overall effect of in these families is still positive, being so small in magnitude, we cannot really establish its positive effect, with the possible exception of the Scandinavian family. Therefore, we carry out separate *t* tests to establish the significance of the overall coefficients<sup>24</sup>, and, as expected, only in the Scandinavian countries we obtain a significant (and positive) effect of board independence on Tobin's Q (columns A, B and C) and return on assets (column F).

In order to interpret our results, we have to keep in mind that the methodology employed here does not allow to fully determine the direction of causality of the established relationships, and therefore, perhaps the most plausible explanation to the negative coefficients in the Anglo-Saxon family would be the incorporation of outsiders to the board after a decline in performance, representing perhaps a more efficient

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<sup>&</sup>lt;sup>24</sup> The results are not presented here for the sake of brevity.

governance system than in Continental Europe, where immediate restructuring of the board would not follow poor performance, at least to the same degree, or would possibly be counterbalanced by the higher benefits derived from the presence of outside directors, such as improved monitoring and/or more intense networking.

The question that arises then is why the benefits of monitoring or networking would be more preponderant in civil law countries than in common law economies. We can think of different plausible explanations. First, it might be the case that the relevance of the networking role of the board is higher in economies where the banking industry is highly integrated with the business sector, such as those in Continental Europe, as compared to the UK and Ireland.

A second possible explanation could be found in the increased need for monitoring (and thereby, the advantage associated to having more independent directors) experienced by civil law countries as a response to the lower degree of legal protection granted to investors when compared to countries of common law tradition, where shareholders are believed to be better protected from expropriation by managers (LLSV, 1998). Even if it is often thought that the solution to this problem in Continental Europe lies on the existence of large owners that would have the power and incentive to monitor the firm's management, it is precisely through the appointment of non-executive directors that these blockholders are able to exercise their control function (Wymeersch, 1998).

And finally, related to this, the different role of directors, both insiders and outsiders, as defined by the specific legal institutions in place in each system, might contribute to making boards with a high proportion of outsiders less desirable in the Anglo-Saxon system than in Continental Europe. Regarding the role of insiders, we can see the first difference in relation to the fiduciary duties of management, which are owed to shareholders in the Anglo-Saxon countries and to the company in Continental Europe

(Allen and Gale, 2001; Wymeersch, 1998). As a result, while insiders in common law countries are, by means of a legal requirement, encouraged to work in the interests of shareholders, executives from civil law countries may have diverse goals other than shareholder value maximization.

Moving on to the role played by outsiders, in the Anglo-Saxon world outside directors are often invited to join the board by the incumbent management, typically the CEO, which conditions their loyalty to him, and might prevent them from exercising efficient monitoring (Wymeersch, 1998; Ruigrok et al., 2006). At the same time, by being external to the company, they are less knowledgeable about the running of the business. The combination of these two factors – poor monitoring and lack of information- would lessen their efficiency in relation to inside directors, which would be reflected in the non-existence of a positive relationship between board independence and performance.

Contrarily, as we commented earlier, non-executive directors in Continental Europe are elected by shareholders to actively represent their interests in the board (Wymeersch, 1998), and thereby, we can presume they would be better at their monitoring tasks than those elected by insiders, plus they may have a comparative advantage over executive directors in that they are more motivated to take decisions in the pursue of maximization shareholder value.

Therefore, as a consequence of how the law defines management responsibilities and protects minority investors, high proportions of executives in the boards seem to be more dangerous for shareholders in Continental firms as compared to the UK and Ireland. Likewise, because of the different nomination patterns of non-executive directors in each system, outsiders may be comparatively less efficient in the Anglo-Saxon countries than in those of civil law tradition.

If we now look at the size of the board, we see that things have changed dramatically from previous tables, where its coefficient was significantly negative. Now it presents a positive sign for Tobin's Q (though very small) for the English family; however, it remains undistinguishable from zero for return on assets. The coefficients corresponding to the interaction terms change sign, and now they appear negative and significant for the market-based performance measure, giving an overall negative effect in Continental Europe when we use Tobin's Q to measure performance. However, given the reduced magnitude of the coefficients, we conduct again separate *t* tests to check the significance of the overall effect of board size in each legal family<sup>25</sup>. According to our results, we can only be sure of the significance of the negative effect that board size would have on Tobin's Q for banks belonging to the German family (columns A and C). This variable remains insignificant for our measure of profitability. These findings would be in agreement with Adams and Mehran (2003) that find a positive sign on a sample of US bank-holding companies (the US is a common law country belonging to the English family).

Again, we face the question of what is behind the different behaviours across legal families. If, as suggested earlier, the positive effect of increasing board size could be explained by the higher relevance of the advisory and networking roles of the board in the banking industry, why would this not be the case in Continental Europe, and particularly in Germany, where the banking-based nature of the economy would further emphasize their importance? More research is needed to be able to accurately interpret the reasons for the different signs obtained, but perhaps part of the explanation can be found by looking at the typical composition of the board. Maybe, the presence of two groups directors often driven by conflicting interests in the company (outside directors

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<sup>&</sup>lt;sup>25</sup> The results are not presented here for the sake of brevity.

elected by shareholders and employee representatives) that dominates German advisory boards complicates the decision-making process, a problem which is further aggravated in larger boards, offsetting the possible benefits of a large board size.

Concerning the coefficients of the legal families' dummies, we see that Continental families present again a lower level of performance when compared when to the English family.

The degree of ownership concentration, as measured by the percentage of closely held shares, shows a significantly positive, though very small, coefficient when the dependent variable is Tobin's Q. However, its significance does not hold for return on assets.

Bank size, measured by total assets, and the capital ratio have a small, but significantly negative relationship to the two measures of performance.

#### 6.3. Robustness

We conduct four robustness tests to confirm the validity of our previous findings. For the sake of simplicity, we do not report here the results. First, we run four Wald tests for each column in *Table 15* testing for the equality of behavior across the legal families (including intercepts plus interactions, only intercepts, only interactions, only interactions with board size, and only interactions with non-executive directors ratio). The F-statistics obtained confirm our previous result in that they allow us to reject the hypothesis of identical behaving families (the exception, in agreement with the previous results would be the coefficients of the interactions between board size and the legal family, which we cannot be sure are different from zero in columns (B) to (F)).

Second, we perform the same OLS regressions as in *Table 15*, but this time leaving out the French family as the baseline, and including a dummy and the

corresponding interactions for the English family. We do not find any relevant difference in our results. The sign of all coefficients remains unchanged. However, while all effects previously found in the English family continue to be here highly significant; we can observe a loss of significance in all coefficients corresponding to the interactions of the governance variables with the Continental families, which would be now undistinguishable from zero. This confirms again at a clearly distinct behavior in the English family when compared with the other groups.

Third, we divide the sample into four sub-samples corresponding to the four legal families and run OLS regressions using the same previous model specifications (without country dummies). Though constrained by the limited number of observations in each group, this approach has the advantage to allow us not to focus in only one or two governance variables, but rather include them all in a more general picture. We see again the English family behaving differently and showing a negative relationship between the *ratio of non-executive directors* and performance. Contrarily, board independence appears to be positively related to performance in the French and Scandinavian families (though only significant for *Tobin's Q* and not across all model specifications). Our results also document a significant negative relationship between the *size of the board* and bank performance in German law countries, as measured by *Tobin's Q* and *return on assets*. The results in any of the other families maintain the expected signs but are broadly insignificant. These divergent results found after running separated regressions for the four legal families help to corroborate the idea of the different governance mechanisms having a different behavior in different institutional environments.

Fourth, we run the regressions in *Tables 14* and *15* including country specific fixed effects. After confirming that our main findings on the effects of the corporate governance variables on performance across legal systems remain qualitatively

unchanged, we performed two F tests after each regression (corresponding first to set of country dummies' coefficients and second, to those of the legal family dummies) to test whether legal family dummies survive the inclusion of unobserved national effects. The results for both tables show that the group of legal family dummies is still significant in the first specification of the model for both measures of performance (corresponding to columns (A) and (D)), but they become insignificant for Tobin's Q after adding the capital ratio and the percentage of closely held shares to the right-hand side of the equation (columns (B) and (C)); whereas legal family dummies survive the inclusion of the capital ratio when the dependent variable is return on assets (column (E)), but not the addition of closely held shares (column (F)).

Finally, we wonder whether the specific economic development in the different countries during 2004 could have influenced our results. Therefore, we look at real gross domestic product (GDP) growth rate figures provided by Eurostat<sup>26</sup> for the year 2004 and we do not observe similar patterns of economic growth for countries belonging to the same legal family. With a growth rate of GDP volume of 4.9 percentage change on the previous year, Luxembourg is the fastest growing economy, followed by Greece (4.7), Ireland (4.4), and three Scandinavian countries: Sweden (4.1), Norway (3.9) and Finland (3.7). Growing at slower pace we find Spain and the UK (both at 3.3), Belgium (3.0), Switzerland (2.5), France (2.5) and Austria (2.3). Lastly, the group composed by the countries that experienced the lowest economic growth in 2004, contains again nations from the different legal families: Netherlands (2.2), Denmark (2.1), Portugal (1.5), Italy (1.2) and Germany (1.1). In addition, further research carried out by the author on a panel dataset from 1996-2005 (Essay 3) confirms the robustness of this analysis by obtaining qualitatively similar findings.

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<sup>&</sup>lt;sup>26</sup> http:// ec.europa.eu/eurostat

To sum up, this section has shown that differences exist across the legal systems in the way the board characteristics relate to performance, and even more so between the English law family and the countries with civil law tradition (French, German and Scandinavian families). We could observe a highly significant negative relationship between the ratio of non-executive directors in the board and performance, and a significant negative relationship between board size and performance in Continental Europe. The effects of the other variables remain unclear. These results are preliminary and cannot explain all the effects of all board variables on bank performance in each legal family, nor determine the direction of causality in the observed relationships that would allow a more accurate interpretation. However, given that we are able to confirm the significance of the legal families, these initial results lead us to believe that the understanding of corporate governance across countries would definitely benefit from further research on this issue, ideally using an enlarged dataset of banks across time, which would allow a more rigorous statistical treatment.

#### 7. Conclusions

The aim of the first part of this paper was to make a cross- country study of the board of directors and ownership structures for a sample of publicly-listed banks in Europe. The new data on boards of directors allowed us to examine the different national patterns. Additionally, we used a measure of cash flow rights concentration to compare the different ownership structures across countries. The main findings confirm the existence of a highly significant nation effect in the corporate governance of European banks, both for the board of directors and the ownership structure. These results hold even after controlling for bank size. We pointed at the countries' legal institutions as the main factor behind these national patterns.

The second part of the paper analyzed the relationship between our corporate governance variables and the financial performance of banks. By focusing on one industry we hoped to be in a better position to uncover the real effect of corporate governance on performance, as it has been previously suggested this may vary across industries (Gertner and Kaplan, 1996; Romano, 1996; Hermalin and Weisbach, 2003). Particularly in the case of banks, the presence of specific regulation and the nature of its business have been argued to influence their corporate governance (Macey and O'Hara, 2003; Levine, 2003; Caprio and Levine, 2002.). In this sense, regulatory restrictions to the holdings of shares, legal barriers to takeovers, requirements on the presence of government representatives on boards or the typical highly leveraged condition of banks have been discussed, among others, as some of the possible reasons behind the different governance structures observed (e.g. lower ownership concentration (Faccio and Lang, 2002), fewer hostile takeovers (Prowse, 1995), larger and more independent boards (Adams and Mehran, 2003) or lower managerial shareholdings (Murphy, 1999; John and Qian, 2003)) and may thereby influence the relationship between corporate governance and performance. However, the initial results of our regressions do not seem to support the existence of particularities, as they document a significant negative relationship between the size of the board and bank performance, as measured by Tobin's Q and return on assets, and no significant effect of board independence, agreeing this way with the general findings for other industries (Hermalin and Weisbach, 2003; Andrés et al., 2005) and in opposition to earlier results of a positive impact of board size in US banks (Adams and Mehran, 2003).

Finally, we wondered whether the diverse governance mechanisms would behave differently in different institutional environments and this could be behind the inconclusiveness of the empirical evidence on the issue. Consequently, the last section

hypothesized that the tradition of the legal system might have an impact on the way board size and/or independence are related to bank performance. After grouping the countries into legal families following (LLSV, 1998), we confirmed the existence of statistically significant differences in the ownership and board characteristics of banks across them, and discussed their role in explaining the observed international variation. According to our results, the tradition of the legal system does capture a relatively large portion of the variability of the governance dimensions included in the study and thus, may be appropriately used to control for the different underlying institutions. Therefore, we included the interaction terms between the legal family dummies and board characteristics in the regression analysis. The findings corroborate our initial hypothesis of the existence of relationships of divergent effect across systems. Interestingly, while the relationship of board independence is highly significant and negative in the English law family; it appears to be of positive sign in the other three families, though much weaker (and only significant in the Scandinavian countries after testing the effect separately). Moreover, coefficients of divergent sign, but smaller in magnitude, are obtained in the case of board size, pointing at a negative link to performance in Continental Europe (though only significant for German family); and positive in the English family. Further research is needed to clarify the actual causes behind these differences in behavior, but we believe two likely reasons might be related to the existence of variations in the levels of investor protection and the different roles arguably played by board directors across legal systems.

During the last years we have seen Codes of Best Practice proliferating across Europe. Their main recommendations focus on the need of more independent directors and seem to dictate a convergence towards the Anglo-Saxon model of corporate governance. This is somewhat surprising if we think of the few published papers on the

effectiveness of European boards and the far from conclusive evidence derived from US studies. This problem of scarcity of empirical studies gets worse in the case of the European banking industry. Therefore, we believe more research is needed to gain a better knowledge of the mechanisms of governance and optimal board and ownership structures of banks in Europe. The use of panel data would undoubtedly help in this task, allowing to more accurately investigate the corporate governance of banks in the different systems, but also to explore the existence of trends. At the same time, a deeper analysis of the different national regulations on the board of directors of banks would shed light on the actual institutional factors behind the observed international differences.

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Table 1
Financial Variables

Nama	Definition
Name Market	The total market value of the company.
Capitalization	Market capitalization = market price at the end of the year* shares outstanding
Total Assets	The sum of cash and due from banks, total investments, net loans, customer liability on acceptances, investment in unconsolidated subsidiaries, real estate assets, net property, plant and equipment and other assets.
Employees	Number of both full and part time employees of the company.
Capital ratio	The ratio of total capital to the book value of total assets.
	Capital ratio = total capital / (total assets - customer liabilities on acceptances)*100
Loan growth	Increase in the loans of the bank during the last year.
	Loan growth = (current year's loans / last year's loans- 1) * 100
Tobin's Q	The ratio of the market value of equity plus the book value of liabilities to the book value of assets.
	Tobin's Q = (market capitalization + total liabilities)/total assets
ROA	After tax returns on total assets.
	Return on Assets = (net income before preferred dividends + ((interest expense on debt-interest capitalized)* $(1-tax\ rate)$ )) / (last year's total assets)) * 100
ROE	After tax returns on common equity.
	Return on equity = (income before preferred dividends - preferred dividends) / total common equity $*100$
ROIC	After tax returns on total invested capital.
	Return on invested capital = (net income before preferred dividends + ((interest expense on debt - interest capitalized) * (1-tax rate))) / (last year's total capital + last year's short term debt and current portion of long term debt) * 100
English	Dummy that equals 1 for banks incorporated in countries belonging to the French legal family (United Kingdom and Ireland, in this case), and 0 otherwise
French	Dummy that equals 1 for banks incorporated in countries belonging to the French legal family (Belgium, France, Greece, Italy, Luxembourg, Netherlands, Portugal and Spain, in this case), and 0 otherwise
German	Dummy that equals 1 for banks incorporated in countries belonging to the German legal family (Germany, Austria and Switzerland, in this case), and 0 otherwise.
Scandinavian	Dummy that equals 1 for banks incorporated in countries belonging to the Scandinavian legal family (Norway, Sweden, Denmark and Finland, in this case), and 0 otherwise
Closely Held Shares (%)	Closely held shares are shares held by owners that hold more than 5%, officers, directors and their families, trusts, pension/benefit plans and by another corporation.
	Closely held shares (%)] = (closely held hares / common shares outstanding) * 100

 $\it Source:$  Worldscope with the exception of Tobin's Q (author's calculations based on Worldscope information).

Table 2
Board Variables

Name	Definition
Board size	Number of board members in each bank (we include all board members in
	unitary board system, and only the members of the supervisory board when the
	board has two tiers).
Positions held by	Average number of positions held by board member in each bank
director	
Non-executive	Proportion of non-executive directors in each bank
directors ratio	Non-executive directors' ratio = (Board size – Executives)/Board size
Outsider directors	Proportion of board members non-employed by the bank
ratio	Outsider directors' ratio = (Board size – Executives - Employee
	representatives)/Board size
Political directors	Proportion of political directors in each bank
ratio	Political directors ratio = Number of political directors in each bank/Board
	size
	(Political directors are those board members that have or have had a job
	position in politics and/or bank regulation and supervision)

Source: Author creation from information gathered in Bloomberg Statistics

Table 3

Descriptive statistics of the financial variables

Country	Market Capitalization (millions €)	Total Assets (millions €)	Employees	Tobin's Q	ROA (%)	ROE (%)	ROIC (%)	Loan growth (%)	Capital ratio (%)
GBR (E)	29272.4	286350.47	49956.54	1.08	2.15	13.49	4.69	13.99	22.43
, ,	(41873.16)	(365175.68)	(72542.08)	(0.08)	(2.03)	(13.02)	(4.07)	(10.58)	(12.55)
IRL (E)	9285.61	80926.1	13841.33	1.07	1.38	23.85	4.06	23.94	14.86
	(4213.98)	(40434.39)	(11284.51)	(0.02)	(0.27)	(6.09)	(0.57)	(6.50)	(4.59)
BEL (F)	20954.52	402554.4	33294.5	1.02	0.98	17.95	3.01	11.32	8.15
	(5190.75)	(160798.03)	(19504.13)	(0.01)	(0.33)	(4.93)	(0.30)	(2.63)	(2.71)
ESP (F)	9713.23	80266.14	19679	1.08	1.47	14.54	3.25	25.45	19.37
	(17763.12)	(161619.04)	(39185.78)	(0.04)	(0.53)	(3.38)	(1.29)	(17.31)	(5.71)
FRA (F)	5064.77	121025.55	16004.41	0.99	1.16	11.07	2.97	9.2	25.59
	(1179.55)	(272270.69)	(32835.61)	(0.03)	(0.60)	(4.02)	(2.87)	(3.05)	(19.80)
GRC (F)	2762.88	19953.66	7348.5	1.07	0.94	9.48	7.06	16.91	11.66
	(3060.17)	(18239.82)	(6546.25)	(0.06)	(1.20)	(8.93)	(4.80)	(5.94)	(5.32)
ITA (F)	4603.27	50033.31	12587.52	1.06	1.03	12.95	2.8	3.5	28.92
	(6533.65)	(73321.55)	(17735.53)	(0.11)	(0.95)	(18.91)	(2.93)	(6.77)	(10.63)
LUX (F)	1372.46								
	(1497.76)								
NLD (F)	6874.11	158912.97	34013	1.02	1.06	13.27	4.58	33.97	14.73
	(14357.33)	(298974.11)	(56518.12)	(0.02)	(0.43)	(10.70)	(2.74)	(24.77)	(11.66)
PRT (F)	3132.32	35829.34	10201	1.02	1.45	12.47	4.54	6	24.98
	(2563.85)	(29936.48)	(10420.18)	(0.02)	(1.08)	(3.43)	(1.86)	(3.85)	(9.56)
AUT(G)	2218.69	54890.36	11424.67	1.01	0.76	10.52	2.07	9.42	51.96
	(3759.15)	(68161.88)	(16486.55)	(0.02)	(0.53)	(3.64)	(1.57)	(7.01)	(13.88)
CHE(G)	2192.24	45353.38	4476.56	1.03	1.09	10.91	4.28	-4.03	23.51
	(6883.25)	(163885.29)	(14955.12)	(0.05)	(0.50)	(3.58)	(2.48)	(14.83)	(8.69)
DEU(G)	4124.6	152761.36	11501.53	1.02	0.65	5.1	1.93	-1.56	34.34
	(7529.29)	(224223.62)	(20462.18)	(0.05)	(0.58)	(9.03)	(1.52)	(12.51)	(20.13)
DNK(S)	552.33	79766.09	746.13	1.06	1.66	13.43	7.38	11.02	15.37
	(2328.07)	(40558.94)	(2528.87)	(0.04)	(0.70)	(3.51)	(2.69)	(7.71)	(5.26)
FIN(S)	614.94	9206.1	817	1.04	1.02	12.48	1.98	19.25	44.45
	(574.99)	(10213.45)	(601.04)	(0.03)	(0.59)	(1.95)	(0.00)	(0.00)	(0.00)
NOR (S)	595.94	6506.41	753.28	0.97	0.95	11.07	3.27	0.41	31.14
	(2191.98)	(20060.41)	(2407.56)	(0.04)	(0.27)	(4.05)	(1.18)	(6.70)	(7.72)
SWE (S)	10368.6	142911.23	14254	1.04	0.84	18.16	7.27	5.25	19.14
	(7285.79)	(99820.73)	(10626.70)	(0.02)	(0.22)	(5.73)	(11.33)	(5.60)	(4.84)
Total	5210.23	79201.89	11870.46	1.04	1.17	12.14	4.46	8.67	24.38
•	(13806.67)	(181895.40)	(28777.70)	(0.07)	(0.90)	(9.60)	(3.53)		(14.30)
Oba	222	207	101	200	1.67	207	100	120	120
Obs.	233	207	191	200	167	207	128	128	128

This table shows the means and standard deviations (in parentheses) for selected financial variables sorted by country and the total number of observations for each variable in our sample. The countries are ordered according to their legal origin [(E): English family, (F): French family, (G): German family, and (S): Scandinavian family].

Table 4

Descriptive statistics of the percentage of closely held shares in each bank per country

Country	Observations	Mean	Std. Dev.	Min	Max
GREAT BRITAIN (E)	13	16,01	23,52	0,02	79,21
IRELAND (E)	3	0,67	0,89	0,08	1,70
BELGIUM (F)	2	57,74	14,94	47,17	68,30
SPAIN (F)	12	53,15	34,79	5,04	95,18
FRANCE (F)	3	23,06	27,72	6,03	55,05
GREECE (F)	3	24,90	15,68	7,50	37,92
ITALY (F)	17	22,58	24,51	0,26	74,56
NETHERLANDS (F)	3	43,47	33,64	6,71	72,70
PORTUGAL (F)	3	50,54	28,27	19,38	74,54
AUSTRIA (G)	6	72,96	19,24	38,50	90,71
SWITZERLAND (G)	14	51,45	32,25	0,45	99,11
GERMANY (G)	16	76,17	30,90	0,03	99,70
DENMARK (S)	9	16,68	14,46	0,29	36,86
FINLAND (S)	1	56,17		56,17	56,17
NORWAY (S)	3	33,04	10,64	23,77	44,66
SWEDEN (S)	3	10,25	17,59	0,01	30,57
TOTAL	111	40,42	33,98	0,01	99,70

The countries are ordered according to their legal origin [(E): English family, (F): French family, (G): German family, and (S): Scandinavian family].

Table 5

Descriptive statistics of the board variables in each bank per country

Country	Observations	Board size	Positions held by director	Non-executive directors ratio	Outside directors ratio	Political directors ratio
GREAT BRITAIN (E)	13	13,08	2,90	0,60	0.63	0,04
OKEAT DRITAIN (E)	13	(4,79)	(1,07)	(0,11)	(0.12)	(0,06)
IRELAND (E)	3	14,67	2,78	0,65	0.67	0,11
IKEE/IKB (E)		(2,52)	(0,71)	(0,08)	(0.08)	(0,08)
BELGIUM (F)	3	18,67	4,96	0,57	0.59	0,07
BEEGIGINI (1)		(5,13)	(2,10)	(0,32)	(0.22)	(0,12)
SPAIN (F)	14	10,21	3,17	0,67	0.71	0,02
Si miv (i )	17	(5,48)	(1,00)	(0,16)	(0.13)	(0,04)
FRANCE (F)	18	16,17	2,43	0,43	0.48	0,02
TRUITEL (I)	10	(4,23)	(1,19)	(0,24)	(0.18)	(0,03)
GREECE (F)	10	13,70	2,18	0,49	0.55	0,04
GREECE (1)	10	(4,00)	(0,25)	(0,21)	(0.19)	(0,04)
ITALY (F)	32	15,38	2,78	0,49	0.59	0,01
IIALI (I)		(4,51)	(1,08)	(0,18)	(0.16)	(0,08)
LUXEMBOURG (F)	3	16,33	3,03	0,57	0.64	0,00
LUXEMBOURG (F)	J	(3,06)	(0,84)	(0,18)	(0.10)	(0,00)
NETHERLANDS (F)	4	8,00	3,28	0,80	0.85	0,04
NETHERLANDS (F)	4	(3,46)	(1,02)	(0,27)	(0.17)	(0,08)
PORTUGAL (F)	4	16,25	3,01	0,44	0.57	0,01
FORTUGAL (F)	4	(10,94)	(0,89)	(0,11)	(0.11)	(0,03)
AUSTRIA (G)	10	17,00	2,39	0,82	0.54	0,01
AUSTRIA (U)	10	(6,88)	(0,58)	(0,16)	(0.21)	(0,03)
SWITZERLAND (G)	24	10,42	2,31	0,59	0.63	0,03
SWITZERLAND (U)	24	(3,80)	(0,65)	(0,24)	(0.21)	(0,08)
GERMANY (G)	19	15,00	2,62	0,87	0.52	0,02
GERMANT (G)	19	(5,56)	(0,59)	(0,21)	(0.17)	(0,04)
DENMARK (S)	35	8,20	1,56	0,71	0.49	0,07
DENWARK (5)	33	(3,13)	(0,34)	(0,16)	(0.13)	(0,07)
NODWAY (C)	16	7,31	1,71	0,39	0.44	0,00
NORWAY (S)	16	(1,20)	(0,30)	(0,13)	(0.11)	(0,00)
SWEDEN (S)	5	10,80	3,88	0,81	0.72	0,00
SWEDEN (S)	3	(2,68)	(1,45)	(0,06)	(0.11)	(0,03)
ТОТАТ	212	12,40	2,46	0,61	0.57	0,03
TOTAL	213	(5,47)	(1,03)	(0,23)	(0.18)	(0,06)

This table shows the means and standard deviations (in parentheses) for selected financial variables sorted by country and the total number of observations for each variable in our sample. The countries are ordered according to their legal origin [(E): English family, (F): French family, (G): German family, and (S): Scandinavian family].

Table 6

Mean-difference ANOVA tests and Kruskal-Wallis tests for equality of populations across countries (p-values below in parentheses)

	Board size	Positions held by director	Non- executive directors ratio	Outside directors ratio	Political directors ratio	Closely Held Shares (%) (*)
Panel A: ANOVA						
F-test (15 d. f.)	8,12 (0,0000)	8,25 (0,0000)	8,77 (0,0000)	4.15 (0,0000)	3,34 (0,0001)	5,52 (0,0000)
F-test controlling for bank size (14 d.f., (*)15	9,4	7,7	7,77	5.08	3,42	6,33
d.f.)	(0,0000)	(0,0000)	(0,0000)	(0,0000)	(0,0000)	(0,0001)
Panel B: Kruskal-Wallis test:						
χ2 (15 d.f.)	84,957	106,735	84,383	52.09	29,221	50,522
	(0,0001)	(0,0001)	(0,0001)	(0,0001)	(0,0151)	(0,0001)
$\chi$ 2 with ties (15 d.f.)	85,300	106,784	84,482	52.12	47,549	50,522
	(0,0001)	(0,0001)	(0,0001)	(0,0001)	(0,0001)	(0,0001)

Table 7

Bank performance and board of directors I:

OLS regressions with robust standard errors

	Depende	ent Variable: To	bin's Q	Depend	Dependent Variable: ROA (%)			
Independent Variable	(A)	(B)	(C)	(D)	(E)	(F)		
Board size	-0.016*	-0.017	-0.038*	-0.473**	-0.508*	-0.593**		
(log)	(-1.67)	(-1.15)	(-1.94)	(-2.59)	(-1.7)	(-2,06)		
Non-exec.	0.024	-0.031	0.014	-0.075	-0.451	0.432		
directors ratio	(0.83)	(-0.79)	(0.31)	(-0.19)	(-0.67)	(0,65)		
Positions held	0.011**	0.004	-0.003	0.047	0.045	-0.009		
by director	(2.55)	(0.75)	(-0.28)	(0.52)	(0.37)	(-0,07)		
Political directors ratio	0.121	0.190	0.207	0.633	0.113	-1.422		
	(1.23)	(1.19)	(0.86)	(0.51)	(0.07)	(-0,50)		
Closely Held Shares (%)		0.000 (0.37)	4.0E-04 (0.93)		-0.004 (-1.36)	0.002 (0,44)		
Total Assets	-6.3E-08***	-6.3E-08**	-4.9E-08	-2.13E-07	-1.8E-07	2.0E-07		
	(-2.78)	(-2.58)	(-1.19)	(-0.45)	(-0.31)	(0,29)		
Capital ratio		-0.001 (-1.03)	-0.001 (-0.67)		0.005 (0.45)	0.015 (1,24)		
Country dummies	No	No	Yes	No	No	Yes		
Constant	1.040*** (28.98)	1.119*** (21.54)	1.122*** (15.81)	2.278*** (3.3)	2.768*** (2.65)	1.244 (1.09)		
Observations	185	106	106	157	104	104		
R-square	0.051	0.089	0.285	0.054	0.070	0.262		
F-ratio	3.28***	3.39***	3.25***	2.15*	1.01	2.91***		

This table shows the coefficients and t-statistics (in parentheses) from ordinary least squares regressions with robust standard errors. Significance levels: (\*\*\*) < 1%; (\*\*) < 5%; (\*) < 10%.

Table 8

Descriptive statistics of ownership and financial variables by legal family

Legal family	Closely Held Shares (%)			Total Assets (millions €)		Tobin's Q		ROA (%)		Capital ratio (%)	
English	(16)	13.136 21.934	(16)	247833.400 337280.270	(16)	1.079 0.075	(13)	2.032 1.880	(15)	20.915 11.686	
French	(43)	36.350 30.172	(87)	86593.280 181195.500	(81)	1.045 0.080	(85)	1.144 0.811	(53)	21.458 11.739	
German	(36)	66.025 31.445	(41)	91284.052 186709.240	(40)	1.025 0.044	(41)	0.866 0.565	(39)	31.880 17.599	
Scandinavian	(16)	21.012 17.709	(63)	18304.676 55652.539	(63)	1.031 0.054	(28)	1.294 0.644	(21)	20.298 9.826	
Total	(111)	40.417 33.980	(207)	79201.886 181895.400	(200)	1.039 0.067	(167)	1.170 0.904	(128)	24.379 14.296	

This table shows the means and standard deviations (below) for our ownership and financial variables sorted by legal family, and the number of observations for each variable in a family (in parentheses).

Table 9

Descriptive statistics of the board variables by legal family

Legal family	Observations	Board size	Positions held by director	Non- executive directors ratio	Outside directors ratio	Political directors ratio
English	16	13.375 4.425	2.88 0.989	0.639 0.108	0.639 0.108	0.056 0.07
French	88	14.375 5.378	2.82 1.142	0.601 0.178	0.593 0.182	0.018 0.04
German	53	13.302 5.726	2.437 0.621	0.754 0.23	0.574 0.201	0.023 0.061
Scandinavian	56	8.179 2.797	1.809 0.824	0.677 0.171	0.495 0.145	0.045 0.064
Total	213	12.404 5.471	2.463 1.027	0.662 0.196	0.566 0.179	0.029 0.056

This table shows the means and standard deviations (below) for our board variables sorted by legal family, and the number of observations in each family.

Table 10

Mean-difference ANOVA tests and Kruskal-Wallis tests for equality of populations

(with probabilities below each test statistic) across legal families

Legal family	Board size	Positions held by director	Non- executive directors ratio	Outside directors ratio	Political directors ratio	Closely Held Shares (%)
Panel A: ANOVA						
F-test (3 d. f.)	19.71	14.26	7.56	4.79	4.1	17.78
	0.0000	0.0000	0.0001	0.003	0.0075	0.0000
F-test controlling for	24.77	11.39	10.24	2.84	3.69	16.26
bank size (3 d.f.)	0.0000	0.0000	0.0000	0.0394	0.0130	0.0000
<u>Panel B</u> : Kruskal-Wallis test						
χ2 (3 d.f.)	50.922	66.556	20.781	17.165	7.013	36.738
	0.0001	0.0001	0.0001	0.0007	0.0715	0.0001
χ2 with ties (3 d.f.)	51.127	66.586	20.807	17.175	11.413	36.738
	0.0001	0.0001	0.0001	0.0007	0.0097	0.0001

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Table 11

Comparing the R– squared from ANOVA tests across countries and legal families

<del>-</del>	Cou	untries	Legal families		Ra	tios
-						Adj.R <sup>2</sup> */
Governance variable	$\mathbb{R}^2$	Adj. R <sup>2</sup>	R <sup>2</sup> *	Adj. R <sup>2</sup> *	$R^{2*}/R^2$	Adj.R <sup>2</sup>
Board size	0.38	0.33	0.22	0.21	0.58	0.63
Non-executive directors ratio	0.34	0.29	0.10	0.08	0.29	0.29
Outside directors ratio	0.24	0.18	0.06	0.05	0.27	0.28
Political directors ratio	0.20	0.14	0.06	0.04	0.27	0.30
Positions held by director	0.39	0.34	0.17	0.16	0.44	0.47
Closely held shares (%)	0.47	0.38	0.33	0.31	0.71	0.82

Table 12

Mean-difference ANOVA tests for equality of populations across legal families where nationality is nested with legal origin (probabilities below each test statistic).

	1					
F-test	Closely Held Shares (%)	Board size	Positions held by director	Non- executive directors ratio	Outside directors ratio	Political directors ratio
Model	5.52	8.12	8.25	6.76	4.15	3.34
	0.000	0.000	0.000	0.000	0.000	0.000
Legal family	7.23 0.005	2.74 0.089	1.14 0.374	1.09 0.391	0.54 0.663	1.14 0.371
Nationality	1.97 0.036	4.29 0.000	5.78 0.000	6.02 0.000	3.8 0.000	3.03 0.000
R2 Adjusted R2	0.4655 0.3811	0.3819 0.3349	0.3859 0.3392	0.3398 0.2895	0.2402 0.1823	0.2027 0.142

Table 13

Mean-difference ANOVA tests and Kruskal-Wallis tests for equality of populations
(with probabilities below each test statistic) across countries within each legal family

		_				-
	Closely			Non-		
Legal family	Held		Positions	executive	Outside	Political
<b>C</b> ,	Shares		held by	directors	directors	directors
	(%)	Board size	director	ratio	ratio	ratio
English Family						
ANOVA F-test	1.21	0.3	0.03	0.37	0.61	2.84
	0.290	0.593	0.855	0.551	0.449	0.114
Kruskal-Wallis χ2	0.113	0.452	0.041	0.452	0.652	2.828
,,	0.737	0.501	0.840	0.501	0.420	0.093
Kruskal-Wallis χ2	0.113	0.455	0.041	0.455	0.656	3.277
with ties	0.737	0.499	0.840	0.501	0.418	0.072
French Family						
ANOVA F-test	1.9	3.42	2.98	3.1	3.5	1.58
	0.107	0.003	0.008	0.061	0.003	0.152
Kruskal-Wallis χ2	10.4	19.928	21.138	16.016	18.352	4.442
Kruskai-wams 12	0.123	0.006	0.004	0.025	0.011	0.728
	0.123	0.000	0.001	0.025	0.011	0.720
Kruskal-Wallis χ2	10.4	20.3	21.151	16.026	18.365	8.578
with ties	0.123	0.006	0.004	0.025	0.010	0.284
German Family						
ANOVA F-test	2.73	7.45	1.37	8.23	0.71	0.37
	0.080	0.002	0.262	0.001	0.497	0.691
V musical Wallis v2	0.112	0.452	0.041	0.452	0.652	2 020
Kruskal-Wallis χ2	0.113	0.452	0.041 0.840	0.452	0.652 0.420	2.828
	0.737	0.501	0.840	0.501	0.420	0.093
Kruskal-Wallis χ2	0.113	0.455	0.041	0.454	0.656	3.227
with ties	0.737	0.500	0.840	0.501	0.418	0.072
With ties	0.757	0.500	0.010	0.501	0.110	0.072
Scandinavian Family						
ANOVA F-test	3.47	3.2	46.35	19.51	20.34	11.03
	0.051	0.049	0.000	0.000	0.000	0.000
Kruskal-Wallis χ2	6.255	5.825	16.136	24.333	20.13	12.632
	0.100	0.054	0.000	0.000	0.000	0.000
Kruskal-Wallis χ2	6.255	6.009	16.201	24.421	20.251	17.239
with ties	0.100	0.050	0.000	0.000	0.000	0.000

Table 14

Bank performance and board of directors II:

OLS regression with robust standard errors including legal family dummies

-	Dependent Variable: Tobin's Q		bin's Q	Dependent Variable: ROA (%)			
Independent Variable	(A)	(B)	(C)	(D)	(E)	(F)	
	(11)	(B)	(0)	(D)	(L)	(1)	
Board size (log)	-0.028**	-0.028**	-0.022*	-0.434**	-0.482**	-0.514*	
	(-2.52)	(-2.31)	(-1.73)	(-2.56)	(-2.13)	(-1.97)	
Non-exec.	0.074**	0.037	0.023	0.391	0.306	0.220	
directors ratio	(2.25)	(1.03)	(0.6)	(1.05)	(0.66)	(0.41)	
Positions held	0.002	-0.003	-0.004	0.030	-0.036	-0.037	
by director	(0.29)	(-0.46)	(-0.52)	(0.32)	(-0.35)	(-0.28)	
Political	0.111	0.047	0.148	-0.141	-0.436	-0.711	
directors ratio	(1.11)	(0.39)	(0.89)	(-0.11)	(-0.33)	(-0.34)	
Closely Held			2.6E-04			-2.1E-04	
Shares (%)			(1)			(-0.06)	
Total Assets	-7.0E-08***	-6.6E-08***	-6.3E-08***	-6.0E-07	-2.0E-07	-2.4E-07	
	(-3.57)	(-2.88)	(-2.74)	(-1.38)	(-0.42)	(-0.48)	
Capital ratio		-4.3E-04	-3.5E-04		0.009	0.009	
		(-0.85)	(-0.63)		(1.09)	(0.92)	
French family	-0.032	-0.029	-0.028	-0.964*	-0.862*	-0.783	
	(-1.31)	(-1.19)	(-1.13)	(-1.83)	(-1.8)	(-1.65)	
German family	-0.073***	-0.071***	-0.077***	-1.319**	-1.399**	-1.396**	
	(-3.28)	(-2.92)	(-2.67)	(-2.54)	(-2.62)	(-2.42)	
Scandinavian	-0.077***	-0.076***	-0.072***	-0.994*	-0.902*	-1.049**	
family	(-3.17)	(-3.2)	(-2.97)	(-1.77)	(-1.7)	(-2.02)	
Constant	1.109***	1.164***	1.150***	2.950***	3.043***	3.218***	
	(25.37)	(24.13)	(22.82)	(3.22)	(3.25)	(3.08)	
Observations	185	124	106	157	123	104	
R-square	0.156	0.186	0.197	0.169	0.194	0.195	
F-ratio	3.82***	3.87***	3.03***	3.2***	2.56**	1.7*	

This table shows the coefficients and t-statistics (in parentheses) from ordinary least squares regressions with robust standard errors. Significance levels: (\*\*\*) < 1%; (\*\*) < 5%; (\*) < 10%

Table 15

Bank performance and board of directors III: OLS regression with robust standard errors including legal family dummies and interactions

Independent Variable   (A)
Non-exec. directors ratio   Condition   Condition
Non-exec. directors ratio
ratio (-4.36) (-3.41) (-3.81) (-3.04) (-2.94) (-2.98)  Positions held by director (0.54) (-0.38) (-0.005 (0.4) (-0.25) (-0.005 (0.4) (-0.25) (-0.04)  Political directors ratio 0.121 (0.094 (0.67) (1.28) (0.71) (0.31) (0.31)  Closely Held Shares (%) (1.69) (1.69) (1.69)  BS*French -0.078** -0.072 -0.06597 (0.353) (0.398) (0.398)
ratio (-4.36) (-3.41) (-3.81) (-3.04) (-2.94) (-2.98)  Positions held by director (0.54) (-0.38) (-0.005 (0.4) (-0.25) (-0.005 (0.4) (-0.25) (-0.04)  Political directors ratio 0.121 (0.094 (0.67) (1.28) (0.71) (0.31) (0.31)  Closely Held Shares (%) (1.69) (1.69) (1.69)  BS*French -0.078** -0.072 -0.06597 (0.353) (0.398) (0.398)
Positions held by director (0.54) (-0.38) (-0.51) (0.4) (-0.25) (-0.005 (0.4))  Political directors ratio 0.121 (0.094 (0.67) (1.28) (0.71) (0.31) (0.31)  Closely Held Shares (%) (1.69) (1.69)  BS*French -0.078** -0.072 -0.06597 (0.353 (0.398) 0.398
director (0.54) (-0.38) (-0.51) (0.4) (-0.25) (-0.04)  Political directors ratio 0.121 0.094 0.222 0.818 0.355 0.722 (1.09) (0.67) (1.28) (0.71) (0.31) (0.43)  Closely Held Shares (%) 4.5E-04* (1.69) (0.78)  BS*French -0.078** -0.072 -0.06597 0.353 0.398 0.398
Political directors ratio 0.121 0.094 0.222 0.818 0.355 0.722 (1.09) (0.67) (1.28) (0.71) (0.31) (0.43)  Closely Held Shares 4.5E-04* (0.69) (0.69) (0.78)  BS*French -0.078** -0.072 -0.06597 0.353 0.398 0.398
(1.09) (0.67) (1.28) (0.71) (0.31) (0.43)  Closely Held Shares (%) (1.69) (0.78)  BS*French -0.078** -0.072 -0.06597 0.353 0.398 0.398
Closely Held Shares 4.5E-04* 0.003 (0.78)  BS*French -0.078** -0.072 -0.06597 0.353 0.398 0.398
(%) (1.69) (0.78) BS*French -0.078** -0.072 -0.06597 0.353 0.398 0.398
(%) (1.69) (0.78) BS*French -0.078** -0.072 -0.06597 0.353 0.398 0.398
BS*French -0.078** -0.072 -0.06597 0.353 0.398 0.398
(2.67) $(1.55)$ $(1.24)$ $(0.19)$ $(0.2)$ $(0.19)$
(-2.07) $(-1.33)$ $(-1.34)$ $(0.16)$ $(0.2)$ $(0.18)$
BS*German -0.080*** -0.076* -0.096* 0.099 -0.038 -0.097
(-3.02) $(-1.75)$ $(-1.91)$ $(0.05)$ $(-0.02)$ $(-0.04)$
BS*Scandinavian -0.060** -0.060 -0.119** 0.105 0.021 -0.531
BS*Scandinavian -0.060** -0.060 -0.119** 0.105 0.021 -0.531 (-2.02) (-1.36) (-2.28) (0.05) (0.01) (-0.24)
NEDR*French 0.740*** 0.765*** 0.853*** 12.016*** 11.824*** 12.236***
(4.53)   (3.51)   (3.78)   (3.22)   (3.14)   (3.1)
NEDR*German 0.693*** 0.708*** 0.752*** 11.524*** 11.316*** 11.617***
$(4.48) \qquad (3.52) \qquad (3.81) \qquad (3.11) \qquad (3.06) \qquad (3.03)$
NEDD#G 1' ' 0.034*** 0.7(0*** 0.005*** 13.103*** 11.047*** 12.77(***
NEDR*Scandinavian 0.834*** 0.760*** 0.925*** 12.183*** 11.947*** 13.776*** (5.25) (3.57) (4.31) (3.24) (3.1) (3.54)
$(3.23) \qquad (3.37) \qquad (4.31) \qquad (3.24) \qquad (3.1) \qquad (3.34)$
Total Assets -6.5E-08*** -6.7E-08*** -6.5E-08*** -3.7E-07 -1.30E-07 -1.1E-07
(-3.5) $(-3.04)$ $(-2.55)$ $(-0.9)$ $(-0.27)$ $(-0.2)$
Capital ratio -0.001* -6.8E-04* 0.004 2.0E-03
(-1.89) $(-1.78)$ $(0.63)$ $(0.3)$
T 1 0 1 0 005thth 0 000thth 0 400thth 0 405thth 0 405thth
French family -0.305*** -0.330*** -0.408*** -9.497** -9.455** -9.692** (-3.11) (-2.88) (-3.99) (-2.5) (-2.41) (-2.33)
(-3.11) $(-2.80)$ $(-3.99)$ $(-2.3)$ $(-2.41)$ $(-2.33)$
German family -0.304*** -0.322*** -0.310*** -8.900** -8.503** -8.596**
(-3.58) $(-3.31)$ $(-2.98)$ $(-2.34)$ $(-2.17)$ $(-2.06)$
Scandinavian family -0.453*** -0.403*** -0.380*** -9.071** -8.694** -8.864**
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Constant 1.388*** 1.416*** 1.402*** 10.620*** 10.280*** 10.350*** (17.44) (15.4) (14.8) (2.81) (2.64) (2.49)
Observations 185 124 106 157 123 104
R-square 0.273 0.296 0.356 0.3549 0.386 0.4124
F-ratio 5.97*** 4.13*** 3.35*** 4.62*** 4.58*** 3.58***

This table shows the coefficients and t-statistics (in parentheses) from ordinary least squares regressions with robust standard errors. Significance levels: (\*\*\*) <1%; (\*\*) <5%; (\*) <10%

#### Notes to Table 15:

BS\*French represents the interaction term between the logarithm of board size and the French legal family.

BS\*German represents the interaction term between the logarithm of board size and the German legal family.

BS\*Scandinavian represents the interaction term between the logarithm of board size and the Scandinavian legal family.

NEDR\*French represents the interaction term between the ratio of non-executive directors and the French legal family.

*NEDR\*German* represents the interaction term between the ratio of non-executive directors and the German legal family.

NEDR\*Scandinavian represents the interaction term between the ratio of non-executive directors and the Scandinavian legal family.

Essay 3

**Board effectiveness in the European banking industry** 

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Abstract

Many papers have studied the size and independence of the board of directors

without being able to agree on a significant relationship to financial performance. Some

would argue the reason for this can be found in the existence of different optimal

governance structures across industries (Gertner and Kaplan, 1996; Romano 1996) and

institutional environments (Goergen, 2007). This paper aims to shed some light into the

nature of this relationship by focusing on a single industry: banking, and allowing for

separated behaviours in the different institutional settings. After using a panel dataset

including 69 listed banks in France, Germany, Italy, Spain and the United Kingdom, the

results show that banks with a higher presence of non-executives in their boards perform

better in Continental Europe; while the opposite is the case in the United Kingdom.

JEL classification: G34; G21

Keywords: Corporate Governance; Board Structure; Banks; Europe

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# 1. Introduction

Numerous studies have tried to identify the characteristics of a successful board of directors, as one of the necessary mechanisms for good corporate governance. The fact that the results obtained are far from conclusive has not been an impediment for the emergence of different types of codes of best practice and sets of rules across all Western economies<sup>27</sup>. Almost invariably, these different sets of recommendations make reference to the design of an optimal board structure that would prevent the failure of the firm's governance, and at the same time that would maximize its financial performance, as one of their main objectives.

Among the characteristics of the board, its size and its degree of independence from the firm's top management have always received a special attention, both in the academic literature (Hermalin and Weisbach, 2003) and in the political recommendations. In this regard, the guidelines in these codes aim in general to delimit the size of the board and to ensure a certain proportion of independent directors, implying this way a supposed higher competence of smaller and more independent boards.

However, it is difficult to find unilateral support to this statement in the academic literature. While according to most studies, we should expect a smaller board size to improve the efficiency of the decision making-process of the board (Jensen, 1993; Yermack, 1996, among others); some evidence of a positive effect of board size for US bank holding companies (Adams and Mehran, 2005) can make us wonder about the possible advantages associated to larger boards, such as an enlarged provision of valuable

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<sup>&</sup>lt;sup>27</sup> For an overview of these codes and their recommendations in the European context, see Weil and Manges (2002).

advice and networks, and whether their relevance could be different across industries or governance systems.

The influence that independent directors may have on performance is one of the most debated issues in the corporate governance literature (Hermalin and Weisbach, 2003). On the one hand, independent directors could be more motivated to monitor the CEO; but on the other, they might also be less informed about the running of the business (Bhagat and Black, 1999; Adams and Ferreira, 2007).

In both cases, the respective empirical effects of these two dimensions of the board are far from clear<sup>28</sup>.

Furthermore, we can reasonably suspect that they are far from general too. Looking at past research, we can find both theory and evidence suggesting that the nature of this relationship might be dependent upon the industry and the governance system we are in. Gertner and Kaplan (1996), Romano (1996) and Hermalin and Weisbach (2003) argue that the difficulty of uncovering the real effect of corporate governance on performance might be partly due to the existence of different optimal governance models across industries. In this way, by limiting the study to one specific industry we hope to be in a better position to identify the functioning of the governance mechanisms, at the same time that we would be able to observe whether we find a different pattern than in other industries.

Particularly, in the case of banking, several studies account for its specificity (Macey and O'Hara, 2003; Adams and Mehran, 2003; Levine, 2003; Caprio and Levine, 2002) claiming that some of its characteristic features, such as, regulation, supervision, capital structure, risk, fiduciary relationships, ownership, deposit insurance..., make

<sup>&</sup>lt;sup>28</sup> Hermalin and Weisbach (2003) and Bhagat and Black (1999) offer excellent reviews on these issues.

banking firms special and their corporate governance problem unique with respect to other industries. As a result, boards of directors in banking firms are larger and more independent, meet more often and tend to have more committees than their counterparts in the manufacturing sector (Adams and Mehran, 2003). Moreover, and contrarily to the main results for other industries, this larger board size appears to have a positive effect on performance (Adams and Mehran, 2005). Yet, the board of directors, although being more independent and occupied, seems to play a weaker disciplinary role and its independence has no proven effect on bank performance (Prowse, 1995; Adams and Mehran, 2003, 2005).

However, despite the fact that the corporate governance of banking firms is currently the object of intensive research in the U.S.<sup>29</sup>, and there are also some studies on this issue for Japan<sup>30</sup>, boards of directors of European banks have not received the same attention.

Therefore, it is the first objective of this paper to investigate what are the characteristics of the board of directors of European banks that would improve their performance. In order to do this, we study the relationship between board size and independence, and the financial performance of banks, as measured by the market-to-book ratio, as well as profitability ratios, on a sample of listed banks in five Western European countries.

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<sup>&</sup>lt;sup>29</sup> See: Adams and Mehran (2005) and (2003), Griffith et al. (2002), Pi and Timme (1993), Simpson and Gleason (1999), Prowse (1995) and Sigler and Porterfield (2001), among others.

<sup>&</sup>lt;sup>30</sup> See: Anderson and Campbell (2004), De Young et al. (2001), Van Rixtel and Hassink (2002)

Our second objective is to study the influence of the governance system, as measured here by the origin of the country's commercial law (as in La Porta et al. (LLSV), 1998) on the way the selected board characteristics may affect bank performance. This places the paper within the stream of literature initiated with the publication of "Law and Finance" by LLSV (1998), where they highlight the role of the different legal systems in shaping the corporate governance model prevalent in a certain country, by constituting a determinant factor of the degree of investor protection (LLSV, 1998), and thereby, of the use of equity finance (LLSV, 1997), ownership concentration (La Porta et al. (LLS), 1999; Himmelberg et al., 2002), government ownership and control of banks (LLS, 2002), dividends payouts (LLSV, 2000), Tobin's Q ratios (LLSV, 2002), and the performance effect of ownership structure (Lins, 2003) and the existence of good corporate governance practices (as measured by a governance quality score constructed by the authors) (Durnev and Kim, 2002). If we think of the corporate governance mechanisms as being interrelated and complementing each other, then, we should expect that if the legal tradition is key for corporate governance (affecting all the above mentioned elements), it should also have an effect on the board of directors. However, this is not the only channel of influence. The company law present in the different countries, through the definition of crucial characteristics, such as the fiduciary duties of directors and managers, the participation of employee representatives, the type of board structure to be used by companies, or the existence of government representation on boards, is also responsible, at least to some extent, of the board of directors' design and functioning (Allen and Gale, 2001). Having in mind these divergences across legal families, we can reasonably suspect that the results obtained on the optimal board characteristics in one country might not be automatically valid elsewhere. This way, exploring this issue will help us to better understand the functioning of the board in the different countries, shedding light on the current uncertainty concerning the roles that individual corporate devices might have in each system (Goergen, 2007), and thus, it will also allow us to more correctly address the need or not of different Codes of Best Practice across nations.

In order to accomplish these objectives, the paper uses a newly constructed panel dataset containing board and financial information on publicly-listed banks from five European countries (France, Germany, Italy, Spain and the United Kingdom) across several years ranging from 1996 to 2005. The sources of the data are the *Spencer Stuart Board Indexes*, a yearly publication of Spencer Stuart Consulting, for the variables on board characteristics, and the electronic database *Worldscope* for the financial information. Having access to panel data allows us to better control for firm heterogeneity by including firm-specific fixed effects in the performed regressions.

Our main findings suggest the existence of a significant relationship between the degree of board independence and bank performance, as measured by the market-to-book ratio of equity. Most interestingly, this relationship would be of different nature in Continental Europe, with positive sign, as compared to the United Kingdom, where despite the negative coefficient, we fail to confirm the existence of a significant effect. When we measure bank performance through the use of profitability ratios, the results for the return on invested capital remain qualitatively unchanged in Continental Europe and come up significantly negative in the UK, but they both loose their significance in the case of return on assets (though all the relevant coefficients preserve the same signs). The

coefficients corresponding to board size present also different signs: positive in the continent and negative in the UK, consistent across the different performance measures; but they did not come up statistically significant in any of the equations.

Furthermore, to ensure that the robustness of our results is not dependent upon the selection of the initial sample, we use an alternate cross-sectional dataset including listed banks from up to 16 Western European countries in the year 2004, and where the board variables were constructed using information from a different source: the Bloomberg Statistics database. After performing ordinary least squares regressions, we observe that the results obtained here broadly support our previous findings from the panel database. There exists a different relationship between the presence of independent directors in the board and bank performance in the Anglo-Saxon countries (U.K. and Ireland) and the rest of Europe, being clearly negative in the first case, and positive, or at least non-negative, in the second. A plausible interpretation of the differences in the magnitude of the coefficients in relation to the previous section could be found in the distinction between short and long run effects arguably estimated by panel and cross-sectional data analyses respectively (Kennedy, 2003). In the case of board size, we fail again to establish the nature of its relationship to performance.

We can think the positive correlation between board independence and performance found in Continental Europe may be a consequence of the lessened governance problems associated to more effective monitoring by independent directors that, by being less attached to the CEO, are therefore more likely to question his decisions.

In order to explain the behaviour of board independence in the UK and Ireland, we initially make use of two theories that rely on opposite directions of causality. On the one hand, management-friendly boards (less independent) could be in a better position to advice, and even monitor, the CEO, and thereby, increase shareholder value (Adams and Ferreira, 2007). On the other, we can think of boards adding more independent directors when firm performance is poor (Hermalin and Weisbach, 1998). However, in both of these two scenarios, the question is still open as to why these mechanisms are not present, or at least not prevalent, in Continental Europe. To answer this, we look at the more precise legal differences between the two governance systems and find that the distinct effects of board independence on performance could be due to the different role played by directors, both insiders and outsiders, across legal families.

These findings raise a word of caution in relation to the wide-spread assumption of the goodness of board independence. While recommendations on this direction could alleviate governance problems in some countries; it seems that enhancing the independence of the board might even have a detrimental effect for shareholders from other institutional environments.

The structure of the paper is as follows. Section 2 offers a review of the literature on the relationship between board size and independence and financial performance of firms in general, and of banks, in particular. Section 3 describes the data and the variables used. Section 4 explains the model chosen and discusses the main empirical findings. Section 5 conducts a similar empirical analysis on an alternative cross-sectional sample. Finally, section 6 concludes.

# 2. Literature review

This section reviews the literature on two of the most studied characteristics of the board of directors: its size (in section 2.1) and its independence (in section 2.2), and their relationship to firm performance; paying special attention to the research that has focused on the banking industry (in section 2.3).

# 2.1 Board size

The literature studying the board of directors' design predicts a negative relationship between board size and financial performance. The main reason argued (Jensen, 1993; Lipton and Lorsch, 1992) would be that larger boards are less effective due to increased agency problems. On the one hand, larger boards are slower at taking decisions, and on the other, they are also less effective at monitoring management because of free-riding problems. Several empirical studies support this detrimental effect of board size for samples from the U.S. (Yermack, 1996), Finland (Eisenberg et al., 1998), a group of countries from Western Europe and North-America (Andrés et al., 2005), and Norway (Bøhren and Strøm, 2006).

Some authors (Gertner and Kaplan, 1996; Wu, 2000) have postulated and shown empirically that this behaviour is, at least in part, the response to the investors' belief on the superiority of small boards at controlling management, and thereby making them "value-maximizing" boards.

Finally, the existence of international differences in optimal board design is addressed by Andrés et al. (2005) on a sample of non-financial companies in Western Europe and North America. However, the results obtained – a negative relationship

between board size and firm value, and the insignificance of board independence – seem to be consistent across governance systems.

#### **Board independence**<sup>31</sup> 2.2

Independent directors are often regarded as something desirable by most Codes, based on the idea that outsiders would be more free to monitor the CEO, being therefore, more diligent in their job to mitigate a corporate governance problem.

While we are able to find evidence agreeing with a positive effect (Baysinger and Butler (1985) account for a ten-year lagged positive effect on return on equity, and Kaplan and Minton (1994) observe how the appointment of outside directors could slightly improve the performance of Japanese firms), most empirical results up to date find no support for this idea.

On the contrary, several studies (Yermack, 1996; Agrawal and Knoeber, 1996; Klein, 1998; Bhagat and Black, 1999<sup>32</sup>) find a negative link between a higher presence of independent directors and firm performance.

shareholders if the conflicts of interest between large owners and minority investors were the object of the

analysis.

The findings in Bhagat and Black (1999) suggest a negative relationship the presence of supermajorityindependent boards (boards with only one or two insiders) and profitability, but do not observe any effect of an increase in the number of independent directors on firm performance.

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<sup>&</sup>lt;sup>31</sup> Throughout this text we will refer to the independence of the board in relation to incumbent management, focusing thereby on the traditional agency problem between owner (principal) and manager (agent). Alternatively, we could think of board independence defined in relation to the influence majority

A plausible explanation to this can be found in the model constructed by Adams and Ferreira (2007), in which information provision by the CEO responds endogenously to changes in board independence. The emphasis of independent directors on their monitoring role makes the CEO less willing to provide them with valuable information for the business, and thereby, making an increase in the proportion of independent directors result in lower effectiveness of the board at its advisory role and, probably, at its monitoring tasks too. This detrimental effect of board independence would only take place in unitary boards, as in dual board systems the more clear separation between the advisory and monitoring responsibilities in two tiers makes the effect of an increase in independence unambiguously positive for shareholder value (Adams and Ferreira, 2003).

Finally, there is also plenty of evidence where the authors fail to identify any significant relationship between the composition of the board and the performance of the firm (Hermalin and Weisbach, 1991; Bhagat and Black, 2002; Andrés et al., 2005; Bøhren and Strøm, 2007). Casting further doubt on the existence of this relationship, the model in Hermalin and Weisbach (1999) present board composition as the outcome of a bargaining process between the existing directors and the CEO over the incorporation of new members on the board, where poor firm performance would very likely be followed by the addition of new independent directors to the board.

# 2.3 Board size and independence in banking

Several studies have investigated the board structures of banks or bank holding companies (BHCs) in the US in the last years. Despite the use of different methodologies and data structures, Pi and Timme (1993), Simpson and Gleason (1999), Griffith (2002),

and Belkhir (2006), all find no significant relationship between the size of the board or the proportion of outside directors and financial performance.

Conflicting with this, the results of Adams and Mehran (2005) show a significant positive relationship between board size and bank performance, as measured by Tobin's Q. Although the structure of the bank holding company was found to be related to board size, the positive effects of a larger board were still visible after taking it into account. In addition, while they find no significant relation between the proportion of outside directors and bank performance, they show that firms with boards dominated by outsiders do perform better.

# 3. Data and variables

# 3.1 Sample collection

The database used in this paper contains board and financial information on publicly-listed banks from five European countries (France, Germany, Italy, Spain and the United Kingdom) across several years ranging from 1996 to 2005. It comprises 69 firms and up to 10 years, giving an unbalanced panel with a total of 257 firm-year observations

The sources of the data are the *Spencer Stuart Board Indexes*, a yearly publication of Spencer Stuart Consulting, for the variables on board characteristics and the electronic database *Worldscope* for the financial information. For the construction of the Index of a particular year, the gathering of information typical occurs during the first months of that year, but could actually range from the end of the previous fiscal year and up to the 31<sup>st</sup> of August of the year in question, providing this way the board variables in those Indexes

with an in-built time lag in relation to the data on performance for the same year, which invariably corresponds to the value at the end of the year.

The main reason for the panel to be unbalanced is the unavailability of the Spencer Stuart Board Indexes for some countries and years<sup>33</sup>. Since this circumstance has no relation to the performance of the banks in the sample, attrition should not be a problem in our data.

# 3.2 Descriptive statistics

In Table 1 we describe the main financial and governance variables used in our analysis.

Table 2 provides some summary statistics of those variables.

# 3.2.1 Financial variables

As a measure of the banks' stock performance, we use the market-to-book value of equity, defined as the ratio of market capitalization to common equity (as in Andrés et al. 2005; Barnhart et al., 1994; Van Overfelt et al., 2007). We include two accounting measures of profitability: return on assets (ROA) and return on invested capital (ROIC). Return on assets is calculated as the ratio of net income to the book value of assets. Return on invested capital is measured as the ratio of net income to the total capital invested in the company.

In addition, in the analysis we control for firm size, measured as the book value of assets, and capital structure, calculated using the ratio of total capital to total assets.

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<sup>&</sup>lt;sup>33</sup> Especially in the case of Germany.

In Panel A of Table 2 we see that the banks in the sample have in average a market-to-book ratio of 2.14, a ROA of 1.28% and a ROIC of 3.10%. The average bank has total assets for 189971 million euros and a capital ratio of 22.88%.

Continuing in Table 2, Panels B and C show the descriptive statistics for the two sub-samples of Continental and Anglo-Saxon banks respectively. If we compare the three measures of performance, we observe the same pattern in all of them: in average, British banks with a market to book ratio of 2.36, ROA of 1.48% and ROIC of 4.86%, perform better than Continental banks, which present a market to book ratio of 2.09, ROA of 1.24% and ROIC of 2.67%. British banks with 479,582 million euros in assets on average and an average capital ratio of 18.09% are larger and more leveraged than Continental banks, which present an average size of 121,416 million euros in assets and a capital ratio of 23.96%.

#### 3.2.2 Board variables

Our variable for *board size* is defined as the number of board members in each bank, including all board members in a unitary board system, and only the members of the supervisory board when the board has two tiers.

In order to investigate the role of board composition in performance, we construct the *non-executives ratio*, which is used as a proxy for board independence. In our analysis, we consider independent directors as those that do not hold an executive position in the company (as in Andrés et al., 2005). This way, the *non-executives ratio* equals the proportion of non-executive directors in each bank and is, thus, calculated by

dividing board size less the number of board directors which are also executives in the company by board size. While it is clear that executives should not be counted as independent directors, there might be other directors that, not being currently officers in the company, may have a relation of dependence from the CEO, either because they are relatives of insiders, or through the maintenance of business relationships with the company. This last type of directors is usually called affiliated or grey directors, and ideally they should be accounted for when measuring the degree of independence of the board (see Bhagat and Black, 1999). The lack of information in that respect made impossible to define independent directors in a stricter manner in this section; however, we supplement the analysis by using an alternative (and narrower) definition of independence in section 5.

Finally, the variable *number of meetings* gives us information on the number of times the board meets during a year.

In Panel A of Table 2 we can see that the average bank has 15.72 members in its board, 81% of which are not employed as executives in the same company, and they meet 13.09 times a year. Comparing the governance variables in the two sub-samples, we observe that the boards of Continental banks are larger (15.93 board members on average), more independent (0.86% of non-executives) and they meet more often (13.80 meetings per year), than their British counterparts (with an average of 14.82 board members, 0.64% of non-executives and 10.23 meetings per year).

# 4. The relationship between board size and composition and performance

The aim of this section is to study the relationship between two dimensions of the board, namely, board size and board composition, and the financial performance of the bank. In this analysis, we also consider the possibility that this relationship is of different nature in the Anglo-Saxon world and in Continental Europe. Section 4.1 explains the basic framework, and section 4.2 presents and analyzes the main results derived from it. In section 4.3, we discuss alternative model specifications.

## 4.1 Model specification

The basic framework for the analysis consists on two models where we investigate the link between board size and independence and the performance of the bank, first, as a single relationship, and then, allowing for a "system effect" in the behavior of the board variables.

In this way, the initial model regresses our main measure of performance (market-to-book value) on board size and board independence (proxied by the non-executives ratio), and includes the size of the bank and its capital structure as financial controls.

Next, to allow for different behaviors in the different governance systems, the second model incorporates the interaction terms between the two board variables and the dummy variable for the British origin.

In both cases, we use a firm fixed effects model with robust (Huber-White) standard errors to correct for potential heteroscedasticity (White, 1980). By including the firm-specific effects, we limit both omitted variable bias and the effect of potential

outliers caused by the fact that the number of cross-sectional units in the sample is small. Plus, it is especially useful when making cross-country comparisons, since it would get rid of any constant nation-effect.

In order to correct for the right-skewness of some variables, we choose to take the log values of the market-to-book ratio, board size and total assets in order to make them better approximations of a normal distribution.

We also checked the degree of correlation between our two corporate governance variables (board size and board independence) and, with a coefficient of 0.24, we do not believe it constitutes a problem for the analysis.

## 4.2 Empirical results

Table 3 presents the results from the fixed effects regressions with robust standard errors. Column (A) regresses the natural logarithm of the market-to-book ratio of equity on the two board variables plus financial controls, and columns (B), (C) and (D) allow for different slopes across the two governance systems by including the interaction terms between the dummy variable for the British origin and board size (column B), the non-executives ratio (column C), and both interactions terms simultaneously (column D).

The results indicate a significant and positive relationship between the ratio of non-executives and firm performance across all four model specifications. Most interestingly, when we introduce the interaction term between our proxy for independence and the dummy for the British origin, we do observe a different behavior between the two groups. While the magnitude and significance of this relation is strengthened in the baseline case, which corresponds to the banks from Continental

Europe; it appears to be significantly different for British banks, where the overall effect comes up negative, but with such a small magnitude that it becomes non-distinguishable from zero when its significance is formally tested<sup>34</sup>.

According to these results, an increase in board independence would be associated to better performing banks in Continental Europe, whereas superior boards in the UK do not appear to be significantly influenced by the proportion of directors who are also executives in the firm.

Although the potential endogeneity problem is somewhat limited here by the time lag in the board variables and the inclusion of the firm-specific fixed effects in the equations, we cannot be completely sure of the direction of causality in this relationship. Because of this, while we can attribute the positive relationship found in Continental Europe to the traditional idea that more independent boards are more effective monitors, and thereby, increase shareholder value; this plausible positive effect of independence could be offset in UK banks by the higher likelihood of independent directors being added to the board after poor performance as suggested by Hermalin and Weisbach (1998).

Another plausible explanation for the behavior of board independence in the UK can be found in Adams and Ferreira (2007). In their model, management-friendly boards are viewed as having a beneficial effect on shareholder value because, by being better

coefficient equal to zero.

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 $<sup>^{34}</sup>$  The significance of the overall effect for the British family (1.048-1.305 = -0.257) was formally checked with a separate t test. The result obtained does not allow us to reject the null hypothesis of an overall

informed by the CEO, they are in an enhanced position to provide valuable advice, and perhaps, even improved monitoring.

However, since none of these two theories allows us to clarify the different incidence of the effects in the two governance systems, we take a deeper look at the main institutional differences between them that specifically deal with board design and could influence the effect of board independence on performance. The first remarkable difference corresponds to the fiduciary duties of management, which are owed to shareholders in the Anglo-Saxon countries and to the company in Continental Europe (Allen and Gale, 2001; Wymeersch, 1998). As a result, while insiders in common law countries are, by means of a legal requirement, encouraged to work in the interests of shareholders, executives from civil law countries may have diverse goals other than shareholder value maximization. Therefore, as a consequence of how the law defines management responsibilities, high proportions of executives in the boards seem to be more dangerous for shareholders in Continental firms as compared to the UK. Moreover, additional support for this argument is found on the different roles arguably played by outside directors in both systems. In the Anglo-Saxon world, outside directors are invited to join the board by the incumbent management, typically the CEO, which conditions their loyalty to him, and might prevent them from exercising efficient monitoring (Wymeersch, 1998; Ruigrok et al., 2006). At the same time, by being external to the company, they are less knowledgeable about the running of the business. The combination of these two factors - poor monitoring and lack of information- would lessen their efficiency in relation to inside directors, which would be reflected in the nonexistence of a positive relationship between board independence and performance.

Contrarily, non-executive directors in Continental Europe are elected by shareholders to actively represent their interests in the board (Wymeersch, 1998), and thereby, we can presume they would be better at their monitoring tasks than those elected by insiders, plus they may have a comparative advantage over executive directors in that they are more motivated to take decisions in the pursue of maximization shareholder value. This could explain the positive sign between board independence and firm value found in Continental European countries.

Going back to the results in Table 3, the natural logarithm of board size presents a positive sign in all four columns, even after discounting the negative sign in the British family, but it does not come out significant.

Our measure of bank size, the natural logarithm of the firm's total assets, appears negative and significant in the four columns, suggesting the existence of diseconomies of scale in banking.

The coefficients for the capital ratio are all positive, but not significant in these regressions.

# 4.3 Further specifications

In this section, we explore the validity of the results presented above by introducing some changes in the specification of the models under analysis.

First, we check whether our results are robust if we measure performance in terms of profitability, though we are aware of the problematic of using accounting ratios as proxies for performance in the banking industry, where previous literature is in favour of

using market-based measures of performance (Boyd and Runkle, 1993; Adams and Mehran, 2005).<sup>35</sup>

After using the same methodology described in section 4.1, Table 4 and Table 5 present the results of the regressions with ROA and ROIC as the dependent variables, respectively.

If we focus first on Table 4, we can see that although the signs of all the coefficients remain unchanged, we can not say the same about their significance. None of the board variables appear to have a significant impact on ROA. Then again, our two financial controls are significant here confirming the existence of diseconomies of scale in European banking and pointing to a positive relationship between the proportion of capital and the firm's ROA.

The signs of the coefficients are again maintained in Table 5. However, here we do observe a significant relationship between the proxy of board independence and profitability (measured here as ROIC) when we allow for different slopes (columns (C) and (D))., being, as expected, positive in Continental Europe and negative in the United Kingdom. Interestingly, this last coefficient is much stronger in magnitude now and leads to an overall negative effect of board independence on the ROIC of British banks.

The coefficient of the natural logarithm of total assets is again negative and significant. But the capital ratio, while remaining positive, loses here some significance (being only significant at 11% and 13% in columns (C) and (D)).

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<sup>&</sup>lt;sup>35</sup> According to Boyd and Runkle (1993) accounting measures of profitability are unfit to measure performance in the banking industry mainly because banks' gains and losses (particularly, loan losses) need not be incorporated into the accounting results in a timely manner.

In summary, while we cannot see that changes in board characteristics are associated to any significant variation in ROA; we find evidence of a significant correlation between board independence and ROIC, that has positive sign in Continental Europe and is negative for UK banks, strengthening our previous results on the market-to-book ratio.

In an extension of the basic model briefly explained in the previous section, Adams and Ferreira (2007) postulate the detrimental effects for shareholders associated to increased independence need not be present in a dual board system, where the advisory and monitoring functions are more visibly separated in two tiers, and therefore, higher independence in the supervisory board would unambiguously benefit the firm. The fact that dual board systems are common in Continental Europe made us wonder whether what we identify as the *governance system effect* would not just be the *one-versus-two-tiers effect*. Since dual boards are more common in the continent and unitary boards are the norm in the UK, we speculate if the existence of two tiers in our continental boards, and therefore, the unproblematic effect of raising board independence there, could be the driver of the positive effect in those countries. However, after controlling for it in the analysis, our findings remain qualitatively unchanged<sup>36</sup>.

After constructing a dummy variable that would equal one in two-tiered board and zero, otherwise; we included its interaction with the board variables in the regressions. No evidence was found of the influence of two-tiers on board effectiveness, and the results on the effect of the board variables and the governance system remained qualitatively the same. The tables with the results are not displayed in the paper for the sake of brevity.

In an alternative specification, we included in the right-hand side of the equations the number of meetings per year (its natural logarithm). While it did not come up significant itself and did not affect the results for the other variables, it implied a reduction in the number of observations, being this the main reason why we left it out the main model.

Following Adams and Mehran (2005), we considered the inclusion of a dummy variable for outsider-dominated boards, only to realize the inappropriateness of our data for that analysis, since in all boards but two the proportion of non-executives is greater than 50%, meaning that they are all, in principle, dominated by outsiders.

Finally, as an additional way to asses the risk connected to bank shares, we ran the regressions including a measure of price volatility (beta), but the number of observations appeared dramatically reduced.

## 5. Results from an alternate sample

To ensure our results are not driven by the sample selection in the panel dataset described in Section 3, this section extends the analysis by using a broader cross-sectional dataset that includes information on a larger number of firms and countries for the year 2004. The data used in this section was initially used by the author in a previous paper (Essay 2). It was drawn from the electronic database *Worldscope* covering all commercial banks (Primary SIC code 602) in it that were listed in the year 2004 in 16 Western European countries (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom).

As in Essay 2, this database was complemented with information regarding the board of directors gathered from a different source, the electronic database *Bloomberg Statistics*. As it occurred in the panel dataset, the board variables are shortly lagged in relation to the performance variables, as information on boards corresponds to the summer of 2004 and performance is measured at the end of the year.

After deleting the observations with missing values in some of the relevant variables, we end up with a database containing a total of 125 banks with financial and governance information.

# **5.1** Descriptive statistics

Table 6 displays the descriptive statistics of the financial and governance variables used in the analysis of the cross-sectional dataset.

A description of the variables used can be found in Table 1. The financial variables are the same as defined in section 3.2.1. The variables on the board of directors have been created by the author using information gathered in the electronic database *Bloomberg Statistics* and they are the following.

*Board size*, defined as in section 3.2.1, is the number of board members in each bank (we include all board members in a unitary board system, and only the members of the supervisory board when the board has two tiers).

Non-executive directors' ratio is used as a proxy for board independence, where independent directors would be those that do not hold an executive position in the company. It equals the proportion of non-executive directors in each bank and is

calculated by dividing board size less the number of board directors which are also executives in the company by board size. In this case, we are able to be even more precise in our definition of independence than in the previous section, and whenever there is information of a former executive position in the company, the director is also counted as executive.

As we can see on Panel A of Table 6, the average market-to-book ratio of the banks in this sample is 1.82, the average ROA is 1.21% and the ROIC has an average value of 3.52%. The average bank has total assets for 121430 million euros and a capital ratio of 24.28%, and 13.14 board members, of which 0.72% are non-executives.

In Panels B and C of the same table, we find the separated summary statistics for the Continental and Anglo-Saxon sub-samples. If we compare them, we observe the same patterns found in Table 2, with the average Continental bank underperforming Anglo-Saxon banks across the three measures; the latter being larger and more leveraged. But, while Continental banks still have more non-executives sitting on their boards, the average board size is here larger in the Anglo-Saxon family.

# **5.2** Model specification

We perform ordinary least squares regressions with robust (Huber-White) standard errors. The different models replicate those used earlier for the panel dataset, and subsequently regress the market-to-book ratio (Table 7), ROA (Table 8) and ROIC (Table 9) on board size and independence, bank size and capital structure, allowing for a different intercept in the British family (columns B, C and D), and different slopes across systems by including the interaction terms the dummy variable for the British origin

(ANGLO) and board size (column C), the non-executives ratio (column D), and both interactions terms simultaneously (column E). Note that now the variable ANGLO does not represent only the UK, but the Anglo-Saxon family, meaning that it has a value of one when the bank is British or Irish and zero otherwise.

#### 5.3 Results

The results presented in Tables 7, 8 and 9 broadly confirm the findings of the previous section on the existence of different behaviors of board independence across governance systems, with the particularity that the new results show a much stronger negative effect of board independence on our different performance measures for banks of Anglo-Saxon origin.

In Table 7 the dependent variable is the natural logarithm of the market-to-book value of equity. There, we see that the coefficients of the non-executives ratio are all positive for the whole sample (columns (A) and (B)) and for the Continental firms (columns (C) and (D)), none of them being significantly different from zero. However, when we interact this variable with ANGLO (columns (C) and (D)), the sign changes to negative as expected and appears significant at the 5% level, showing a negative relationship between board independence and performance for Anglo-Saxon banks. The natural logarithm of board size, its interaction with ANGLO and bank size all present the expected signs (positive, negative and positive, respectively), but are not significantly different from zero. The coefficients of the capital ratio are, in opposition to previous results, negative this time, and highly significant. The dummy for the Anglo-Saxon

family is positive and significant, describing a higher level of market-to-book values in the UK and Ireland, than in the other countries.

In Table 8, with ROA as the dependent variable, board size appears negative for the first time, but none of the coefficients is significant. However, in the case of the Anglo-Saxon family, the negative coefficient is significant in column (B), suggesting that well-performing banks in the UK and Ireland present smaller boards.

Confirming previous results, board independence has a positive relationship with profitability in the baseline group, while it correlates negatively with ROA in the UK and Ireland (columns (C) and (D)). If we do not separate the banks in groups, this relationship is positive but looses its statistical significance (columns (A) and (B)). The effect of bank size on ROA is again significantly negative. In the case of the capital ratio, we cannot establish the existence of any relationship to ROA. The dummy variable for the Anglo-Saxon family is again positive and significant, showing that the banks in this group beat the Continental banks also in terms of profitability.

Finally, Table 9 shows us the results of the OLS regressions using ROIC as the dependent variable. If we focus on the significant results, we see that they are all in agreement with our previous findings. The coefficient of the non-executives ratio is positive and significant if we take the whole sample (column (B)), but it increases its magnitude and significance when we allow for different behaviours, resulting then negative and significant in the Anglo-Saxon countries (columns (C) and (D)). While the relationship to board size remains unclear too for this measure of performance; there is evidence of diseconomies of scale and a negative correlation between the capital ratio and ROIC. The dummy ANGLO is again positive and significant (column (C)).

In summary, the results from the cross-section broadly confirm previous findings on the existence of different behaviours of board independence across governance systems. However, there appear to be substantial differences in the magnitudes of these effects. For example, the relationship between board independence and performance in Continental Europe, while it maintains the positive sign, it looses its significance in the cross-section. On the other hand, the overall effect of the ratio of non-executives in the Anglo-Saxon presents again a negative sign but, whereas before we could not be sure it was different from zero (except in the case of ROIC), it now appears to have a much stronger significant effect, its magnitude being 3.8 times stronger in the cross-section than in the panel. We could interpret these results in the light of the differences between short run and long run effects as in Kennedy (2003, pages 307-308). Since cross-sectional data are said to estimate long-run relationships, the stronger coefficients for board independence in the UK and Ireland could evidence full changes in performance due to changes in the board. At the same time, performance would only partially adjust to changes in board composition in the short-run, showing therefore a weaker effect, and that is what is captured in the analysis using panel data. In Continental Europe we find the opposite situation in the case of market-to-book ratio, where the positive coefficients appear much stronger in the panel data analysis, which could perhaps be explained by a short run reaction of the market anticipating the argued benefits of increased independence.

#### 6. Conclusions

The purpose of this paper was twofold: to investigate which characteristics of the board of directors of European banks would lead to improved performance, as well as to study the influence of the governance system (following La Porta et al., 1996) on the way the selected board characteristics may affect bank performance.

In order to accomplish these objectives, the paper used a newly constructed panel dataset containing board and financial information on publicly-listed banks from five European countries.

Our main findings suggest the existence of a significant relationship between the degree of board independence and bank performance, as measured by the market-to-book ratio of equity. Most interestingly, this relationship would be of different nature in Continental Europe, with positive sign, as compared to the United Kingdom, where despite the negative coefficient, we fail to confirm the existence of a significant effect. When we measure bank performance through the use of profitability ratios, the results for the return on invested capital remain qualitatively unchanged in Continental Europe and come up significantly negative in the UK, but they both loose their significance in the case of return on assets (though all the relevant coefficients preserve the same signs). The coefficients corresponding to board size present also different signs: positive in the continent and negative in the UK, consistent across the different performance measures; but they did not come up statistically significant in any of the equations.

The existence of different relationships between the presence of independent directors in the board and bank performance in the Anglo-Saxon countries (negative) and the rest of Europe (positive, or at least non-negative) is further confirmed by the use of an

alternate cross-sectional dataset. The differing magnitudes of the coefficients obtained for the cross-section and panel data analyses may be understood in the light of distinct long and short run effects, respectively, of board independence on performance, as explained in Kennedy (2003).

We discuss three theories to interpret these results. First, the positive effect of management-friendly boards in the UK and Ireland (either as overall negative or just as neutralizing the negative impact caused by insiders being less motivated to challenge top management's decisions) could be the consequence of the superior advice and monitoring they are able to provide thanks to being better informed by the CEO (Adams and Ferreira, 2007). Second, since we cannot eliminate the possibility that causality may run in the opposite direction, poor bank performance could be the reason why more independent directors are added to the board (Hermalin and Weisbach, 1998). However, since in both of these two scenarios the question is still open as to why these mechanisms are not present, or at least not prevalent, in Continental Europe, where enhancing board independence seems to lead to increased performance, we need a third theory to explain the differing behaviours. Therefore, after looking at the main institutional differences between them that specifically deal with board design and could influence the effect of board independence on performance, we argue that the different role of directors, both insiders and outsiders, as defined by the specific legal institutions in place in each system, is what makes boards with a high proportion of outsiders less desirable in the Anglo-Saxon system, while the opposite is the case in Continental Europe. If we start with the role of insiders, we can see the first difference in relation to the fiduciary duties of management, which are owed to shareholders in the Anglo-Saxon countries and to the company in Continental Europe (Allen and Gale, 2001; Wymeersch, 1998). As a result, while insiders in common law countries are, by means of a legal requirement, encouraged to work in the interests of shareholders, executives from civil law countries may have diverse goals other than shareholder value maximization. Therefore, as a consequence of how the law defines management responsibilities, high proportions of executives in the boards seem to be more dangerous for shareholders in Continental firms as compared to the UK. Moreover, additional support for this argument is found on the different roles arguably played by outside directors in both systems. In the Anglo-Saxon world, outside directors are invited to join the board by the incumbent management, typically the CEO, which conditions their loyalty to him, and might prevent them from exercising efficient monitoring (Wymeersch, 1998; Ruigrok et al., 2006). At the same time, by being external to the company, they are less knowledgeable about the running of the business. The combination of these two factors - poor monitoring and lack of information- would lessen their efficiency in relation to inside directors, which would be reflected in the nonexistence of a positive relationship between board independence and performance.

Contrarily, non-executive directors in Continental Europe are elected by shareholders to actively represent their interests in the board (Wymeersch, 1998), and thereby, we can presume they would be better at their monitoring tasks than those elected by insiders, plus they may have a comparative advantage over executive directors in that they are more motivated to take decisions in the pursue of maximization shareholder value. This could explain the positive sign between board independence and firm value found in Continental European countries.

To conclude, the findings of this paper raise a word of caution in relation to the wide-spread assumption of the goodness of non-executive directors and suggest that while emphasizing the independence of the board could alleviate governance problems in some countries, it might end up having a detrimental effect for shareholders from other institutional environments.

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Table 1

## Variables

Name	Description	Definition
Market-to-book ratio	The transformation of the ratio of the market value of equity to the book value of the common shares outstanding.	Log (market capitalization <sup>37</sup> / book value of common shares outstanding)
Board size*	Number of board members in each bank (we include all board members in unitary board system, and only the members of the supervisory board when the board has two tiers).	Log (board size)
Non-executives ratio*	Proportion of non-executive directors in each bank	(Board size – Executives)/Board size
Number of meetings*	Number of board meetings in each bank per year.	Number of board meetings per year.
Total Assets	The transformation of the sum of cash and due from banks, total investments, net loans, customer liability on acceptances, investment in unconsolidated subsidiaries, real estate assets, net property, plant and equipment and other assets.	Log (total assets)
Capital ratio	The ratio of total capital to the book value of total assets.	(Total Capital / Total Assets)* 100
Anglo	Incorporated in a country belonging to the English legal family (the UK and Ireland, in this case), or elsewhere.	Dummy that equals 1 for the UK and Ireland, and 0 otherwise
Return on assets	After tax returns on total assets.	(Net income before preferred dividends + ((interest expense on debt-interest capitalized)*(1-tax rate))) / (last year's total assets)) * 100
Return on invested capital	After tax returns on total invested capital.	(Net income before preferred dividends + ((interest expense on debt - interest capitalized) * (1-tax rate))) / (last year's total capital + last year's short term debt and current portion of long term debt) * 100

*Source:* Worldscope, except (\*) from Spencer Stuart Board Indexes for the sample banks from 1996-20005 and created by the author from information gathered in Bloomberg Statistics for the cross-sectional sample.

<sup>37</sup> *Market capitalization* represents the total market value of the company and it is the result of multiplying the market price at the end of the year by the number of shares outstanding.

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Table 2
Summary statistics for sample of banks from 1996-2005

	Obs.	Mean	Std. dev.	Minimum	Maximum
Panel A: All companies					
Financial variables					
Market to book	256	2.14	1.45	0.45	14.11
Return on assets	249	1.28	0.91	-1.00	5.07
Return on invested capital	224	3.10	2.42	-1.81	21.98
Total assets (in millions €)	256	189971	283285	1062	1585712
Capital ratio (%)	244	22.88	14.81	4.96	100.00
Board size and composition					
Board size	257	15.72	4.58	6	32
Non-executive directors ratio	220	0.81	0.15	0.29	1
Number of meetings	236	13.09	6.36	3	42
Panel B: Continental companies					
Financial Variables	_				
Market to book	207	2.09	1.58	0.45	14.11
Return on assets	203	1.24	0.91	-1.00	5.07
Return on invested capital	180	2.67	1.89	-1.81	12.88
Total assets (in millions €)	207	121416	179664	1062	1136786
Capital ratio (%)	199	23.96	14.97	4.96	100
Board size and composition					
Board size	208	15.93	4.78	7	32
Non-executive directors ratio	171	0.86	0.12	0.29	1
Number of meetings	189	13.80	6.82	3	42
Panel C: Anglo-Saxon companies					
Financial variables	<u>-</u>				
Market to book	49	2.36	0.60	1.18	4.41
Return on assets	46	1.48	0.89	0.21	4.95
Return on invested capital	44	4.86	3.39	0.90	21.98
Total assets (in millions €)	49	479582	426507	3287	1585712
Capital ratio (%)	45	18.09	13.23	7.10	67.46
Board size and composition					
Board size	49	14.82	3.53	6	22
Non-executive directors ratio	49	0.64	0.08	0.47	0.83
Number of meetings	47	10.23	2.55	6	16

Table 3

Fixed effects regressions with robust standard errors (p-values below)

		Dependent Variable: Market-to-book ratio (log)				
Independer	nt Variable	(A)	(B)	(C)	(D)	
Board size	(log)	0.282 0.129	0.312 0.168	0.269 0.151	0.320 0.159	
Non-execut	tives ratio	0.746** 0.041	0.736** 0.047	1.047** 0.027	1.048** 0.026	
Board size	(log)*Anglo		-0.152 0.627		-0.261 0.405	
Non-executives ratio * Anglo				-1.232 0.071*	-1.305 0.059*	
Total assets (log)		-0.116 0.026**	-0.116 0.027**	-0.104 0.047**	-0.103 0.050*	
Capital rati	0	0.001 0.737	0.001 0.759	0.002 0.602	0.002 0.629	
Constant		0.564 0.500	0.577 0.489	0.381 0.651	0.392 0.643	
Observation	ns	210	210	210	210	
R-square	Within Between Overall	0.056 0.007 0.002	0.057 0.033 0.011	0.068 0.046 0.016	0.070 0.056 0.021	
F-ratio Prob > F		3.25** 0.014	2.6** 0.028	3.3*** 0.008	2.77** 0.014	

This table shows the results of the fixed effects regressions with robust standard errors on the sample of banks from 1996-2005. P-values are displayed below the corresponding estimates. Significance levels: (\*\*\*) < 1%; (\*\*) < 5%; (\*) < 10%

Table 4

Fixed effects regressions with robust standard errors (p-values below)

		Dep	endent Variabl	e: Return on As	ssets
Independent	t Variable	(A)	(B)	(C)	(D)
D 1: /	1 \				
Board size (	log)	0.302	0.331	0.293	0.336
		0.666	0.697	0.677	0.692
Non-executi	ives ratio	0.142	0.133	0.323	0.323
		0.826	0.840	0.676	0.675
Board size (	log)*Anglo		-0.139		-0.218
`			0.894		0.836
Non-executi	ives ratio * Anglo			-0.850	-0.921
1 (011 0110 0110	1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			0.577	0.556
Total assets	(log)	-0.460**	-0.459**	-0.450**	-0.448**
	(6)	0.010	0.011	0.012	0.014
Capital ratio		0.037***	0.037***	0.037***	0.037***
Capital fatic	,	0.037	0.037	0.037	0.037
		0.008	0.008	0.008	0.008
Constant		4.650	4.653*	4.524	4.518
		0.100	0.099	0.108	0.111
Observation	ıs	202	202	202	202
	Within	0.091	0.091	0.093	0.093
R-square	Between	0.015	0.012	0.010	0.006
*	Overall	0.041	0.032	0.029	0.019
F-ratio		2.15*	1.72	1.75	1.46
Prob > F		0.078	0.135	0.128	0.197

This table shows the results of the fixed effects regressions with robust standard errors on the sample of banks from 1996-2005. P-values are displayed below the corresponding estimates. Significance levels: (\*\*\*) < 1%; (\*\*) < 5%; (\*) < 10%

Table 5
Fixed effects regressions with robust standard errors (p-values below)

		Dependent Variable: Return on Invest			d Capital
Independer	nt Variable	(A)	(B)	(C)	(D)
D 1:	(1 )				
Board size	(log)	0.582	0.827	0.412	0.817
		0.679	0.613	0.764	0.603
Non-execu	tives ratio	1.828	1.714	5.144*	5.080*
		0.435	0.476	0.052	
		0.433	0.476	0.032	0.055
Board size	(log)*Anglo		-1.174		-1.974
			0.677		0.446
Non avaou	tives ratio * Angla				4
Non-execu	tives ratio * Anglo			-12.135**	-12.601**
				0.019	0.019
Total asset	s (log)	-0.956**	-0.945**	-0.862*	-0.841*
		0.043	0.047	0.055	0.064
Capital rati	io	0.040	0.039	0.047	0.045
Capitarran	10	0.040	0.039	0.047	0.043
		0.165	0.181	0.109	0.128
Constant		9.928	9.946	8.135	8.097
		0.174	0.171	0.229	0.229
Observatio	ne				
Obscivatio		184	184	184	184
	Within	0.050	0.052	0.109	0.115
R-square	Between	0.020	0.078	0.142	0.145
	Overall	0.006	0.042	0.078	0.091
F-ratio		1.57	1.29	2.51**	2.2**
Prob > F		0.188	0.272	0.033	0.048

This table shows the results of the fixed effects regressions with robust standard errors on the sample of banks from 1996-2005. P-values are displayed below the corresponding estimates. Significance levels: (\*\*\*) < 1%; (\*\*) < 5%; (\*) < 10%

Table 6
Summary statistics for alternate sample of banks from 2004

	Obs.	Mean	Std. dev.	Minimum	Maximum
Panel A: All companies	<u></u>				
Financial variables					
Market to book	125	1.82	0.83	0.12	5.90
Return on assets	123	1.21	0.98	-0.40	6.14
Return on invested capital	88	3.52	2.68	-0.62	13.50
Total assets (in millions €)	125	121430	222067	126	937731
Capital ratio (%)	125	24.28	14.35	2.07	73.13
Board size and composition					
Board size	125	13.22	5.63	3	31
Non-executive directors ratio	125	0.71	0.19	0.25	1
Panel B: Continental companies					
Financial Variables	_				
Market to book	110	1.75	0.83	0.12	5.90
Return on assets	110	1.11	0.77	-0.40	4.20
Return on invested capital	76	3.36	2.53	0.41	12.88
Total assets (in millions €)	110	101976	194537	174	905001
Capital ratio (%)	110	24.74	14.66	2.07	73.13
Board size and composition					
Board size	110	13.14	5.82	3	31
Non-executives ratio	110	0.72	0.19	0.25	1
Panel C: Anglo-Saxon companies					
Financial variables	_				
Market to book	15	2.32	0.56	1.56	3.98
Return on assets	13	2.03	1.88	-0.25	6.14
Return on invested capital	12	4.53	3.49	-0.62	13.50
Total assets (in millions €)	15	264095	342564	126	937731
Capital ratio (%)	15	20.91	11.69	9.53	51.69
Board size and composition					
Board size	15	13.87	4.10	6	22
Non-executive directors ratio	15	0.64	0.11	0.33	0.74

Table 7

OLS regressions with robust standard errors (p-values below)

	Depende	ent Variable: M	arket-to-book ra	atio (log)
Independent Variable	(A)	(B)	(C)	(D)
Board size (log)	0.001 0.971	0.002 0.905	0.002 0.916	0.002 0.910
Non-executives ratio	0.004 0.988	0.122 0.644	0.156 0.573	0.151 0.582
Board size (log)*Anglo		-0.329 0.230		-0.119 0.623
Non-executives ratio*Anglo			-1.291** 0.046	-1.116** 0.042
Total assets (log)	0.026 0.189	0.023 0.292	0.022 0.286	0.024 0.282
Capital ratio	-0.008** 0.020	-0.007** 0.027	-0.008** 0.026	-0.008** 0.027
Anglo		1.186 0.111	1.160*** 0.009	1.354** 0.069
Constant	0.412 0.155	0.300 0.342	0.291 0.344	0.279 0.386
Observations	125	125	125	125
R-square	0.062	0.113	0.117	0.118
F-ratio	2.5**	5.89***	5.13***	5.64***
Prob > F	0.046	0.000	0.000	0.000

This table shows the results of the ordinary least squares regressions with robust standard errors on the cross-sectional sample of banks. P-values are displayed below the corresponding estimates. Significance levels: (\*\*\*) < 1%; (\*\*) < 5%; (\*) < 10%

Table 8

OLS regressions with robust standard errors (p-values below)

	Dependent Variable: Return on Assets				
Independent Variable	(A)	(B)	(C)	(D)	
Board size (log)	-0.020 0.666	-0.015 0.753	-0.015 0.750	-0.015 0.751	
Non-executives ratio	0.018 0.974	0.326 0.413	0.585* 0.098	0.583* 0.099	
Board size (log)*Anglo		-2.696* 0.073		-0.073 0.970	
Non-executives ratio*Anglo			-11.316*** 0.000	-11.204*** 0.002	
Total assets (log)	-0.119** 0.035	-0.090* 0.058	-0.087* 0.078	-0.086* 0.068	
Capital ratio	0.000 0.996	-0.002 0.741	-0.004 0.479	-0.004 0.473	
Anglo		7.873** 0.048	8.260*** 0.000	8.373** 0.030	
Constant	2.497*** 0.000	1.907*** 0.000	1.732*** 0.000	1.727*** 0.000	
Observations	123	123	123	123	
R-square	0.084	0.246	0.348	0.348	
F-ratio	2.2*	3.01***	5.8***	6.34***	
Prob > F	0.073	0.009	0.000	0.000	

This table shows the results of the ordinary least squares regressions with robust standard errors on the cross-sectional sample of banks. P-values are displayed below the corresponding estimates. Significance levels: (\*\*\*) < 1%; (\*\*) < 5%; (\*) < 10%

Table 9

OLS regressions with robust standard errors (p-values below)

	Dependent Variable: Return on Invested Capit				
Independent Variable	(A)	(B)	(C)	(D)	
Board size (log)	0.124 0.352	0.150 0.280	0.140 0.312	0.139 0.320	
Non-executives ratio	1.458 0.239	2.305 0.035**	2.748 0.012**	2.756 0.012**	
Board size (log)*Anglo		-2.407 0.516		0.273 0.925	
Non-executives ratio*Anglo			-20.370* 0.062	-20.894** 0.045	
Total assets (log)	-0.680*** 0.000	-0.719*** 0.000	-0.705*** 0.000	-0.708*** 0.000	
Capital ratio	-0.079*** 0.000	-0.076*** 0.000	-0.077*** 0.000	-0.076*** 0.000	
Anglo		8.150 0.423	15.306** 0.032	14.938 0.121	
Constant	10.470*** 0.000	9.782*** 0.000	9.378*** 0.000	9.403*** 0.000	
Observations	88	88	88	88	
R-square	0.323	0.384	0.419	0.419	
F-ratio	8.53***	8.77***	9.08***	9.38***	
Prob > F	0.000	0.000	0.000	0.000	

This table shows the results of the ordinary least squares regressions with robust standard errors on the cross-sectional sample of banks. P-values are displayed below the corresponding estimates. Significance levels: (\*\*\*) < 1%; (\*\*) < 5%; (\*) < 10%

Essay 4

The interaction between blockholder ownership and

performance in European banks

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**Abstract** 

This paper investigates the effect of blockholder ownership on firm performance

and the role of the legal family in shaping this relationship by using a GMM linear

dynamic estimator on a sample of European banks over a 13-year period (1993-2005).

The results obtained confirm the existence of differences in the effect that a change in the

level of ownership concentration may have in the different institutional settings. For

average levels of blockholder ownership below 50%, an increase in concentration might

be beneficial for banks in the French and Scandinavian families; while it could have a

detrimental effect on the Tobin's Q of banks from countries of German and English legal

origin. We hypothesize that, together with the legal protection granted to minority

investors, an important element to better interpret these findings may lie in the identity of

the predominant blockholders in each system.

JEL classification: G21; G32; G34.

Keywords: Corporate Governance; Ownership Structure; Banks; Europe

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#### 1. Introduction

Since Berle and Means warned us about the dangers derived from the separation of ownership and control in the modern corporation (Berle and Means, 1932), the academic literature has profusely debated between the benefits of large owners as a way to alleviate the governance problem, and the possibility that blockholders<sup>38</sup> do actually more harm than good when they become entrenched and expropriate the wealth of minority investors (Short, 1994). The inconclusiveness of the empirical evidence on that matter seemed to give support to Demsetz and Lehn (1985) thesis of endogenous ownership structures. With the firms at their optimal structure, researchers could not find any significant effect on financial performance.

But in 1999 Bebchuk and Roe question this line of thought and claim that the current ownership structures we observe in firms need not be efficient, since they are partly determined by earlier corporate structures and regulation, and not completely designed by the profit-maximizing firm.

At the same time, the *Law and Finance* tradition initiated by La Porta et al. (LLSV, 1998, 1999, 2000), introduced the legal origin as an additional element explaining the differences between ownership structures across countries.

This paper contributes to this literature by combining the institutional approach of the *Law and Finance* tradition and highlighting the relevance of the legal factors; while it also draws on Bebchuk and Roe's (1999) theory of path dependence to

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<sup>&</sup>lt;sup>38</sup> A blockholder is usually defined in the academic literature as the shareholder that owns a minimum of 5% of the company's common shares.

investigate whether changes in the level of blockholder ownership would lead to improved firm performance across different institutional settings.

The database used consists on a panel of publicly-listed banks from 17 Western European countries over a 13-year period (1993-2005) including financial and closely held shares information gathered from the Worldscope electronic database.

There are several advantages derived from focusing on the banking sector (Adams and Mehran, 2005). On the one hand, it has been argued that one reason behind the difficulty of identifying the effect of governance on performance may be the existence of different optimal governance across industries (Romano, 1996). More in particular, ownership structures have also shown to be sensitive to the industrial sector, and even more so in the presence of industry-specific regulation (Demsetz and Lehn, 1985; Thomsen and Pedersen, 1997; Faccio and Lang, 2002). In this sense, focusing on a single industry might help us to discover the existence of a significant relationship between ownership and performance, if any.

On the other hand, given that mismeasurements in the proxies for Tobin's Q, such as market-to-book ratios, are also likely to vary across industries, a second benefit of studying the banking sector is that we may increase the robustness of our results to mismeasurement in those ratios. Furthermore, according to Boyd and Runkle (1993), proxies for Tobin's Q may be more accurate in the banking industry than in manufacturing.<sup>39</sup>

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<sup>&</sup>lt;sup>39</sup> Boyd and Runkle (1993) argue two main reasons behind this lower measurement error when using market-to-book ratios to reflect the total market value of the firm to the replacement cost of assets. First, on the liabilities side, banks issue little long-term debt and the book value of short term deposits – the majority of their liabilities- is a closer approximation to market value. Second, to the extent that bank assets are

Furthermore, if international competition in the product markets is a determinant of the speed with which governance systems emerge (Mayer, 1998), we anticipate the increase in competition associated to the EMU may constitute an extra force of change, putting firms under pressure to modify their ownership structure in a value-maximizing manner. For this reason, we believe the European banking sector in the years following the implementation of the Second Banking Coordination Directive<sup>40</sup> provides an ideal scenario to study the relationship between blockholder ownership and performance.

In order to deal with the methodological difficulties encountered by previous empirical studies at the time of investigating the direction of causality in the relationship, we choose an alternative econometric approach developed by Arellano and Bond (1991). This GMM linear dynamic estimator (Arellano and Bond, 1991) will allow us to better identify the existence of a significant causal effect.

The findings show how the institutional environment, accounted for as the tradition of the legal system (LLSV, 1998), may influence the relationship between blockholder ownership and performance, as measured by Tobin's Q. This difference in behaviour is especially clear in the case of the German legal family, where the markets always respond negatively to an increase in ownership concentration. For the other legal

mainly composed of loans and only a minor part is plant and equipments, capital gains on loans, while they

can be deferred, will eventually be realized, adjusting the book value of assets accordingly towards a more

realistic replacement value.

<sup>40</sup> The Second Banking Coordination Directive was implemented in January 1<sup>st</sup>, 1993 and introduced the single banking licence, allowing the establishment of branches and the supply of cross-border banking services to all countries in the European Economic Area without prior authorization from the authorities in the particular country.

families, the relationship is only significant when the average level of blockholder ownership is lower than 50%, showing that banks in the English and German families can improve their performance by achieving a more disperse structure; while in countries of French and Scandinavian legal origin banks would benefit from an increase in ownership concentration. Above the 50% average level, all coefficients become insignificant, confirming the existence of a non-linear relationship between ownership and performance (as in Thomsen et al., 2006).

The interpretation of these results is not straightforward. The negative effect of higher concentration in the English and German families could be explained as a way to prevent abusive control by blockholders, i.e., the market believes the optimal structure to be more dispersed. Contrarily, the positive sign in the French and Scandinavian families could mean investors in those countries believe large owners are good, and therefore, more concentrated structures are desirable. But why are these different effects prevalent in each legal system? We posit the answer to this question is a combination of two factors: the degree of legal protection each system affords to its minority investors and the identity of the major shareholders in each case, as investor types are known to be viewed differently by investors from different countries (Nickell et al., 1997; Januszewski et al., 1999). This way the lower levels of investor protection present in civil law countries (LLSV, 1998) would lead to a stronger positive effect of ownership concentration, confirming previous evidence on the issue (Lins, 2003; Caprio et al., 2003). As an exception to this, the negative sign found for the German family – belonging also to the civil law group- might be the result of the predominance of financial institutions as blockholders in these countries

Concerning the lack of any significant relationship above the 50% level of concentration, a plausible explanation can be found in the weaker incentives the market has now to reward a change in ownership, when the power associated to it will have a smaller influence in the firm's decision- making process, since the relevant players have already been determined.

Finally, as a robustness test of our results, we carry out the investigation using return on assets as an alternative measure of firm performance. However, we fail to find any significant relationship between blockholder ownership and this measure of profitability.

The paper is structured in six sections. Section 2 reviews the previous theoretical and empirical studies found in the academic literature. Section 3 explains the specification of the model used. Section 4 describes the data and some summary statistics. Section 5 presents and discusses the results obtained. Finally, section 6 concludes.

#### 2. Literature review

# 2.1 Theory

The theoretical literature on the relationship between blockholder ownership and financial performance, while profuse, is rather ambiguous and it does not agree on its nature, either in terms on a negative or positive sign, or in the actual direction of causality between these two variables.

Berle and Means (1933) opened the discussion by suggesting a positive correlation between ownership concentration and firm profitability. Since large

shareholders would have the power and incentive to more efficiently monitor managers, more concentrated structures would suffer less the governance problem arising from the separation between ownership and control, with the consequent positive influence on profit rates. Since then, a large number of studies have long debated between this convergence-of-interests hypothesis (Jensen and Meckling, 1976; Burkart et al., 1997) and the possibility that large owners may actually be entrenched in their position and expropriate the rents of minority investors, what is known as the entrenchment effect hypothesis (Fama and Jensen, 1983; Morck et al., 1988; Shleifer and Vishny, 1997).

In 1983 Demsetz, and later Demsetz and Lehn (1985), initiated a prolific stream of literature that would claim the endogeneity of a firm's ownership structure. This thesis views the ownership structure of a corporation as the result of the decisions that profit-maximizing investors make when buying or selling shares in the market. The loss of control by the owners could be offset by a lower cost of capital or other benefits of diffuse ownership, denying this way the existence of a systematic relationship between changes in ownership concentration and firm performance.

To add further complexity to this issue, the literature also points towards the existence of different relationships across countries (Dennis and McConnell, 2003; LLSV, 1998, 1999, 2000) and industries (Demsetz and Lehn, 1985; Romano, 1996).

Concerning the differences across industries, Demsetz and Lehn, in their previously commented work on the endogeneity of the ownership structures (Demsetz and Lehn, 1985), make the optimal degree of ownership concentration dependent on different factors, such as firm size, the instability of the environment, the presence of regulation in the industry or the amenity potential of the firm's product for the owners. In

the case of banks, as they are regulated institutions, we should observe a less concentrated ownership structure than in manufacturing firms, since regulation means subsidized monitoring by the government. On top of this, banks are usually large firms, and this should also have negative effect on ownership concentration through the increased opportunity cost of owning a controlling share. In this same line, support of the industry specificity of this relationship is provided in Romano (1996), Thomsen and Pedersen (1997) and, in specific relation to the financial sector, in Prowse (1995), Faccio and Lang (2002) and Caprio et al. (2004).

One way to explain the international differences in ownership structures would look at the institutions involved in the shaping of the corporate governance model prevalent in that country. Following Shleifer and Vishny (1997), subsequent papers of La Porta et al. (LLSV 1998, 1999, 2000) place the country's legal origin at the core of this discussion. They argue that the increased levels of ownership concentration in some nations would be an efficient response to poor investor protection. After dividing the countries into legal families according to the tradition of their legal system, they show how in legal families that offer a lower level of investor protection, firms maximize their value by increasing the level of blockholder ownership (as in the French, German and Scandinavian legal families, in that order). Likewise, the need for ownership concentration diminishes when investor protection is high (as in the English legal family).

On top of the degree of ownership concentration present in a country (La Porta et al. (LLS), 1999; Himmelberg et al., 2002), the legal systems, arguably by constituting a determinant factor of the degree of investor protection, have been also found to have an

influence in other corporate governance dimensions, such as, the use of equity finance (LLSV, 1997), government ownership and control of banks (LLS, 2002), dividends payouts (LLSV, 2000), Tobin's Q ratios (LLSV, 2002), the performance effect of ownership structure (Lins, 2003) and the existence of good corporate governance practices (as measured by a governance quality score constructed by the authors) (Durnev and Kim, 2002). While this stream of literature meant an undeniable break-through in the corporate governance field, mainly by making clear the critical role of the institutional factor in corporate governance, the actual definition of investor protection and its behaviour has been broadly discussed (Rose, 2007; Spamann, 2006), and later revised by the authors (Djankov et al., 2008).

In different direction, Bebchuk and Roe (1999) develop a theory of path dependence of corporate ownership. According to these authors, current corporate structures are highly influenced by earlier ownership structures. This persistence over time could occur even in the presence of inefficiencies due mainly to the existence of internal rent-seeking. This way, we would find firms with persistent highly concentrated structures, even when their performance would benefit from a reduction in blockholder ownership. Likewise, we could observe managers from highly dispersed corporations fighting a potentially temporary concentration of power, such as a takeover, even when this increase in ownership concentration would be good for the firm, but it could jeopardize their position. In addition, this persistence over time does not apply only to the concentration of ownership: rules and regulations are also influenced by the initial pattern of corporate structures. This second source of persistence would take place through the power the various interest groups will exercise on the political process that determines

those rules. In this manner, powerful corporate players in an initial ownership structure will favour rules that preserve their power, even when the resulting structure is no longer efficient. This way, we observe the existence of ownership and governance differences in countries based on earlier corporate and legal traditions, even when the present economic situation of the countries is not that different.

Following Bebchuk and Roe's (1999) theory of path dependence, we expect to find significant, and perhaps different, relationships between blockholder ownership and firm performance in the different institutional environments in Europe. As a way to control for the regulatory setting, we draw on the legal families introduced by LLSV (1998) and later used in various ownership studies (LLSV, 1999; Himmelberg et al., 2002; Lins, 2003).

Being aware of the fact that the existence of specific political developments in the different countries has meant that the countries' legal institutions have also a more direct role in determining international ownership patterns by placing differing restrictions on the holding of shares both by financial and non-financial corporations (Allen and Gale, 2001), we might wonder what the actual power of the legal families is compared to that of nationality in explaining these international differences in ownership structures. However, previous results by the author using different ANOVA and Kruskal-Wallis tests on a cross-sectional sample of European banks in 2004 (Essay 2, Tables 10 to 13) indicate that, while nationality is a better determinant of the governance characteristics of banks (accounting for up to 47% of the variation in the case of percentage of closely held shares, when looking at the R-square), the legal family stands also for a relatively large part of the variability in blockholder ownership, explaining the

main portion of the nation effect (Table 11 in Essay 2). Further tests provide extra support to the hypothesis of the relevance of the legal systems to explain international differences in ownership structures (Tables 10, 12 and 13 in Essay 2); particularly, when dividing the countries into legal family sub-samples, the significance of the nation effect for blockholder ownership drops substantially and even disappears in most cases (Table 13 in Essay 2).

### 2.2 Previous empirical evidence

As it was the case for the theory, the empirical literature on the interaction between blockholder ownership and firm performance is vast, but the results that it yielded are far from conclusive. The complexity of this relationship has given rise to not few methodological problems when testing it empirically, often resulting in conflicting findings<sup>41</sup>.

The earlier papers were characterized by using single equation studies and tend to find a weak positive association (Berle and Means, 1932; Morck et al., 1988; McConnell and Servaes, 1990), but they do not take into account the possible endogenous nature of blockholder ownership.

Later, this apparently positive relationship becomes insignificant when using simultaneous equations models (Loderer and Martin, 1997; Cho, 1998; Himmelberg et al., 1999; Demsetz and Villalonga, 2001), or panel data with firm fixed effects (Himmelberg et al., 1999). The former method would try to deal with this econometric

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<sup>&</sup>lt;sup>41</sup> See Thomsen et al. (2006) for a complete review of the most relevant empirical studies on this issue.

challenge of endogeneity, but the difficulty then lies in choosing truly exogenous instruments; and the latter reduces the unobserved firm heterogeneity, but fails to solve the problem of an endogenous firm-specific variable.

The event studies published yield also conflictive results (Holderness, 2003), and they are not without problems. While they filter much of the firm-specific noise, they cannot completely avoid the influence of some unobserved factors accompanying the change in ownership, plus firms included rarely constitute a random sample.

Further efforts to deal with the endogeneity of the ownership structure include the use of Granger causality tests (Granger, 1969) and sophisticated GMM techniques. Thomsen et al. (2006) apply for the first time of a methodology that would specifically try to identify the direction of causality by using Granger causality tests. In their paper they document a strong negative effect of blockholder ownership on firm value in Continental Europe, though only significant for firms with high initial level of blockholder ownership. For US and UK firms no evidence of causality is found either way, as previously seen in Demsetz and Lehn (1985) and Demsetz and Villalonga (2001). These findings suggest the existence of a governance system effect on the relationship between blockholder ownership and firm value.

Finally, GMM techniques can be used to facilitate the solution of the endogeneity problem by using lagged values of the endogenous variable. Nickell et al. (1997) and Januszewski et al. (1999) use both the GMM linear dynamic estimator developed by Arellano and Bond (1991) but obtain opposite results on samples of manufacturing firms from the UK and Germany, respectively. If the results in Nickell et al. (1977) show that the existence of a dominant shareholder from the financial sector

would have a positive effect on productivity growth in the UK, Januszewski et al. (1999) find this effect to be insignificant for German firms.

Moving on now to the literature on the banking industry, there seems to be a majority of papers advocating the beneficial effects of blockholder ownership on bank performance. Giving support to Demsetz and Lehn (1985), Prowse (1995) and Faccio and Lang (2002), the paper by Caprio et al. (2004) provides international evidence of lower ownership concentration in the banking sector, especially in the developed economies. At the same time, they find a significant positive relationship between the degree of ownership concentration and firm value. Furthermore, a more concentrated ownership structure would significantly reduce the positive impact of legal investor protection on valuations. The regressions are estimated using country random effects on the cross-sectional data, adjusting this way the standard errors to reflect the cross-correlation in observations from the same country. They address the concerns about the endogeneity by using instrumental variables on the measures of ownership concentration and level of shareholder protection; and the results remain unchanged.

Other studies, however, point towards the inexistence of a significant link between ownership and bank performance (Belkhir, 2006; Lang and So, 2002). Belkhir (2006) uses simultaneous equations on a cross-section of US bank and savings-and-loan holding companies and finds no significant effect of blockholder ownership on firm value, as measured by Tobin's Q.

# 3. Methodology

In order to investigate the link between blockholder ownership and financial performance together with the possible impact of the institutional environment in determining this relationship, we use a dynamic framework that allows for endogenous persistence by including a lagged dependent variable. We estimate the two following models:

(I) 
$$Q_{it} = \beta_0 + \beta_1 Q_{i(t-1)} + \beta_2 B Q_{it} + \beta_3 B S_{it} + \beta_4 C R_{it} + f_i + S_t + \varepsilon_t$$

(II) 
$$Q_{it} = \beta_0 + \beta_1 Q_{i (t-1)} + \beta_2 B O_{it} + \beta_3 E N G^* B O_{it} + \beta_4 G E R^* B O_{it} + \beta_5 S C A^* B O_{it} + \beta_6 B S_{it}$$
$$+ \beta_7 C R_{it} + f_i + s_t + \varepsilon_{it}$$

where

 $\beta_0, ..., \beta_7$  are the parameters to be estimated;

Q<sub>it</sub> is the market-to-book ratio (log value), a proxy for Tobin's Q;

Q<sub>i (t-1)</sub> is the lagged value (one period) of the dependent variable;

BO<sub>it</sub> represents blockholder ownership, as measured by the percentage of the closely held shares (log value);

ENG is a dummy variable that equals 1 for countries belonging to the English legal family, and 0 otherwise;

GER is a dummy variable that equals 1 for countries belonging to the German legal family, and 0 otherwise;

SCA is a dummy variable that equals 1 for countries belonging to the Scandinavian legal family, and 0 otherwise;

BS<sub>it</sub> is bank size, as measured by the bank's total assets (log value):

CR<sub>it</sub> is the capital ratio (calculated as defined in Table 1);

 $f_i$  are the firm-specific fixed effects;  $s_t$  are the time specific effects (year dummies); and  $\epsilon_{it}$  is the error term.

Model I examines the existence of a significant effect of blockholder ownership on firm value that is independent of the legal framework. Model II incorporates the possibility of relationships of different nature across different legal traditions by including, in the right-hand side of the equation, the interaction terms between the legal family dummies and blockholder ownership. The interaction term corresponding to the French legal family – the most prevalent in our sample – is dropped out to avoid perfect multicollinearity, and therefore will be represented by the baseline coefficient of blockholder ownership.

As we have seen in section 2, the empirical analysis of the effect of blockholder ownership on financial performance faces numerous methodological challenges derived from the unclear direction of causality between ownership structure and firm performance (a problem known as *structural reverse causality*), and the fact that an unobserved variable (e.g., product market competition, as seen in Himmelberg et al., 1999) may simultaneously determine ownership structure and performance (this type of endogeneity is known as *spurious correlation*).

Having access to a rich panel dataset is crucial if we want to use an alternative method addressing these two sources of endogeneity (Börsch-Supan and Köke, 2000). Fixed-effect models (as in Himmelberg et al., 1999) will help to correct for unobserved firm heterogeneity; capturing the within firm variation; but only as long as the

unobserved characteristics do not vary over time, otherwise, we would obtain biased and inconsistent estimators.<sup>42</sup>

But even if we were able to include all time-varying variables in our model, the within estimator would leave unsolved the problem of identifying the true direction of

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<sup>&</sup>lt;sup>42</sup> In this respect, a limitation to our study is given by the assumption of product market competition as a time-constant variable, when we have reasons to suspect an increase in competition over time in the period covered in our sample (1992-2005). The European Central Bank (ECB, 2006) reports an uninterrupted trend of market consolidation in the European banking industry since 1997, as shown by the declining number of credit institutions. In particular, looking at the degree of concentration in the banking industry, the weighted Herfindahl index (which measures the sum of the square market shares of the individual institutions) rose from 504 in 2001 to 601 in 2005 in the EU countries (ECB, 2006). In the same period and for the same countries, the share of total assets of the five largest credit institutions increased from 37.8% to 42.3% (ECB, 2006). Because of this variation, we should ideally include a measure of product market competition in our study. However, the information on the degree of concentration provided by the ECB is only available from 2001 and onwards. Furthermore, according to the European Commission (2006.), given that concentration at the regional level is generally much higher than the national concentration figures would suggest, national indicators may be misleading for analyzing the degree of competition for each year, especially in big countries where competition mostly occurs in the regional markets. The effect that the consolidation process might have on the measurement of blockholder ownership is difficult to predict: on the one hand, we would have increased values due to the acquisition of large stakes by other banks; but on the other, there might be a dilution of blockholder stakes following a merger or acquisition. Since this likely increase in competition throughout the sample period does not seem to have affected some legal families more than others (ECB, 2006), we do not believe it might constitute a serious problem when establishing the existence of different relationships.

causality. One way of dealing with this is by identifying an exogenous event, such as a change in regulation.<sup>43</sup>

However, an alternative mode to econometrically address this issue without the need of exogenous events is to use General Method of Moments (GMM) techniques specifically designed to deal with this endogeneity problem by using lagged values of the endogenous variables as instruments. Among these GMM techniques, stands out the dynamic panel data estimator especially developed by Arellano and Bond (1991) to address both types of endogeneity in lagged-dependent variable models. It works by first differentiating the regression equation to remove any omitted variable bias created by unobserved firm-specific effects, and then, using lagged values of the original regressors as instruments for the right-hand side variables to ensure the consistency of the estimates even in presence of simultaneity bias.

To test the validity of the set of instruments, and therefore, the consistency of the GMM estimator, Arellano and Bond (1991) recommend the use of the Sargan test of over-identifying restrictions, which null hypothesis states that the subset of instruments is the valid one. Therefore, if we cannot reject the null, the instruments used are correct by this criterion.

In the presence of heteroscedasticity we can estimate Huber-White robust standard errors (White, 1980), but the Sargan test is no longer reliable to check the validity of the model, since it would tend to over-reject (Arellano and Bond, 1991).

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sensitivities

<sup>&</sup>lt;sup>43</sup> See Crawford et al. (2003) for an example on the effects of deregulation on bank CEO pay-performance

Arellano and Bond (1991) recommend using the two-step Sargan test for performing inference on model specification.

Another requirement to ensure the consistency of the estimates in the model regards autocorrelation. The model is built on the assumption that errors are not serially correlated. While first-order autocorrelation would not imply that the estimates are inconsistent, the existence of second-order autocorrelation in the residuals from the differenced equations would jeopardize the consistency of the results (Arellano and Bond, 1991). Therefore, we will also include a test for it in our analysis.

#### 4. Data and variables

# 4.1 Sample collection and variables

The data used in this paper covers all listed commercial banks (Primary SIC code 602) from 17 Western European countries (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom) over a 13-year period (1993-2005) that were included in the electronic database Worldscope. This search gave us a total of 358 banks and 2199 firm-year observations for which the database contains financial and ownership information. Unfortunately, the presence of missing information for some of these banks reduces considerably the number of observations in each econometric model. *Table 1* describes the variables used in this study.

In order to describe the level of ownership concentration in the banks, we use the percentage of *closely held shares* as a proxy for blockholder ownership. Following Worldscope's definition, *closely held shares* represents shares held by insiders. For

companies with more than one class of common stock, *closely held shares* for each class is added together (thus, not allowing us to differentiate between cash flow rights and voting rights). It includes:

- Shares held by individuals who hold 5% or more of the outstanding shares
- Shares held by officers, directors and their immediate families
- Shares held in trust
- Shares of the company held by any other corporation (except shares held in a fiduciary capacity by banks or other financial institutions)
- Shares held by pension/benefit plans

As we can see, this measure includes not only the shareholdings of large outside investors, but also the fraction owned by the management of the firm. Thomsen et al. (2006) argue that the broader scope of this measure should not constitute a problem: if insiders own less than 5%, the measurement error will be small; and if they own more than that, then, they should appropriately be included as blockholders.

However, a limitation of this measure is its inability to differentiate between cash flow rights and voting rights, a distinction found to be also present in the biggest banks of most European countries (Caprio et al., 2003). On the other hand, information on the size of the largest shareholding would help us to understand the actual mechanisms in the relationship between ownership and performance, as we would distinguish the implications of having a dominant owner controlling *de facto* the firm, or several blockholders with comparable holdings. Other measures of ownership would be the percentage in the hands of the three/five/twenty largest owners or a Herfindahl index of the concentration of shareholdings. Likewise, it would be interesting to have access to

data on the identity of those largest owners, which, as we will discuss later, might influence this relationship since different types of shareholders may have different goals besides the common goal in shareholder value maximization (Thomsen and Pedersen, 2000).

In order to determine the financial performance of banks, we use a measure of firm valuation: *Tobin's Q*, and a measure of profitability: *return on assets. Tobin's Q* is calculated as the ratio of the market value of equity plus the book value of liabilities to the book value of assets. *Return on assets (ROA)* is calculated as the ratio of net income to the book value of assets.

To investigate whether the relationship between blockholder ownership and financial performance is influenced by the institutional environment, we specify four dummy variables (*FRE*, *ENG*, *GER* and *SCA*) corresponding to the main legal families (French, English, German and Scandinavian, respectively), as in LLSV (1998). See the variables' definition in *Table 1* for a full list of the countries in each legal family.

In addition, we use control variables for *firm size*, measured as the book value of assets, and *capital structure*, calculated using the ratio of total capital to total assets.

For the regression analysis, in order to make the variables on blockholder ownership, Tobin's Q and total assets fit a normal distribution, we will use their log values (as in Demsetz and Lehn, 1985, and Thomsen et al, 2006).

# 4.2 Descriptive statistics

Table 2 shows some summary statistics of the initial sample of banks (*Panel A*) and the different legal families' sub-samples (*Panels B* to *F*) throughout the period 1993-2005.

Panel A of Table 2 indicates that average blockholder ownership for our initial sample firms during 1993-2005 is 47.56%. If we disaggregate this information into legal families, we find the English family at one end of the spectrum showing the most dispersed structure with only 15.87% of blockholder ownership; while the German family lies at the other end, presenting, at 65.92%, the highest level of closely held shares. In between, we find that the Scandinavian countries with a mean value of 21.27% are closer to the English family, and the average 52.42 % level of blockholder ownership in French tradition nations resembles more that of the German family

If we are interested to see the evolution of this variable throughout the period, *Figure 1* plots the blockholder ownership over the years 1993-2005 and across the four legal families. There we can see how there is certain resemblance in all sub-groups, showing a relatively stable pattern throughout the mid-nineties, but experiencing big movements towards the end of that decade-beginning of the next one, coinciding with the introduction of the euro in 1999. The associated restructuring experienced by the European banking market is pictured in our data by a substantial increase in the level of ownership concentration in the German and English legal families; while the opposite occurs in the French group, with the Scandinavian banks maintaining an unchanged stable pattern.

The trend in the last years (2003 to 2005) indicates a maintained fall in blockholder ownership across all families, with the exception again of the Scandinavian countries moving in an upwards direction, which shows that considerable restructuring is still taking place in that region.

Going back to *Table 2* to look at the measures of performance, the average bank has a Tobin's Q of 1.05 and return on assets of 1.16. By legal families, we find the best performing banks, according to these two measures, in the English family (Q is 1.1 and return on assets, 1.79). In terms of Tobin's Q, the English family is followed by the French (Q equal to 1.07), German (Q equal to 1.04), and last, the Scandinavian family (Q equal to 1.00). However, if we look at the return on assets, the Scandinavians banks occupy the second best position (1.39), followed by the French (1.13), and last, the German family (0.88).

If we define the size of the bank by the value of its total assets, we can say the average bank in the sample has a size of 71,126 million euros. There are big differences across the different legal families. The largest banks, in average terms, are found in the English family with a mean value of 161,699 million euros, with the average Scandinavian bank being more than 5 times smaller, at 31,627 million euros. French and German law countries present banks with a similar average size at 67,068 and 66,345 million euros, respectively.

This same ranking is observed if we define the size by looking at their market value, with averages of 18,021 million euros in the English family, 4,237 million euros in the French, 3,266 million euros in the German, and 2,287 in the Scandinavian countries.

The average bank for the whole sample would have a market value of 5,085 million euros.

In terms of leverage, the divergences across legal families are not that big. With an average capital ratio of 23.62% for the whole sample, we find the most capitalized banks in the German countries (mean value of 29.65%), followed by the French (22%), and finally, the English and Scandinavian families (both at 20.49%).

#### 5. Results

We begin this section by analyzing the Pearson correlation coefficients between our main variables, as shown in the correlation matrices in *Table 3*. The magnitude of coefficients is not too high to indicate any problems of multicollinearity. Blockholder ownership appears to be positively correlated with firm value, as measured by Tobin's Q, in all, but the German legal family (Matrix E). On the other hand, the correlation coefficient between blockholder ownership and return on assets presents a negative sign in all matrices, except for Matrix D, which corresponds to the French family.

Table 4 presents the results of the GMM regressions with robust standard errors and the standard tests on the validity of the instruments (Sargan test) and the inexistence of second-order correlation of the residuals.

The first column in *Table 4* displays the estimates corresponding to model I, where we regress bank performance, as measured by Tobin's Q, on blockholder ownership and the control variables. The results shown here would lead us to question –if not deny- the relevance of the degree of blockholder ownership for the financial performance of banks, since we obtain an insignificant, though negative, coefficient when

we presume the same behaviour throughout the sample. This result would be in agreement with Demsetz and Lehn (1985) and Demsetz and Villalonga (2001), among others, and supports the idea of the inexistence of a systematic relationship between ownership concentration and performance.

Moving on to the other variables in this model, not surprisingly, we find a strongly significant positive effect of lagged dependent variable (Q (t-1)) on its current value, suggesting that the dynamic specification should be preferred. Furthermore, we can also observe the existence of highly significant diseconomies of scale, while the capital ratio appears to have no effect on our dependent variable.

The second column in *Table 4* shows us the results obtained for model II, in which we allow for different behaviours of blockholder ownership across the four legal families by including the interaction terms between this variable and the legal family dummies (the French family –as the most prevalent- is left as baseline). While the results for the control variables confirm those of model I, we do find this time a highly significant negative coefficient of blockholder ownership for the German legal family. The coefficients for the other families remain insignificant, though we can appreciate different signs (positive for the French and Scandinavian, negative for the English law group).

Both models (I and II) are generally supported by standard specification tests. The Sargan tests do not allow us to reject the null hypothesis of instrument validity. As for the serial correlation tests, we cannot reject either the null hypothesis of no second-order autocorrelation in the residuals.

The negative coefficient for the German family suggests that investors in those countries regard blockholder ownership as prejudicial, thereby punishing banks that increase their degree of ownership concentration with lower share prices. In the other legal systems, large shareholder may not be viewed so negatively, and therefore a change in ownership structure does not entail any significant effect on performance.

To help us in the interpretation of these results, we suspect the identity of the blockholders may shed some light in explaining the market reaction to changes in ownership. Since we do not have access to the identities of the major owners in our sample, we rely on the information provided in Caprio et al. (2004) to give us as an approximation of the identity of the typical blockholder in each country. We observe that, in contrast with the banks from other legal families, banks in the German family are mostly owned by financial institutions, which, given the negative coefficient for blockholder ownership in the regressions, should raise concern for the role of banks in the German corporate governance. <sup>44</sup>

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This has been previously suggested in the literature. For example, Hellwig (1991) shows that banks, when holding private relationships with the firm, can use the acquired private information to extract rents from it. In a posterior study (Hellwig, 1998), he builds a model were banks are not necessarily interested in promoting effective management of the firm, but rather they are interested in cooperating with executives to limit the power of outsiders. These detrimental effects may be particularly severe in bank-based economies, such as Germany, where banks are highly integrated with the business sector and might have a greater interest in continuing credit lines rather than maximizing the overall value of the firm. In support of this, Januszewski et al. (2001) find that the beneficial effect of concentrated ownership on productivity growth for a sample of German manufacturing firms disappears when the ultimate owner is a financial institution. In opposite direction, Gorton and Schmid (2000) show that German banks use their

These results confirm the relevance of the institutional system in moderating the relationship between blockholder ownership and firm value, supporting previous findings by Thomsen et al. (2006) for Continental Europe. However, they conflict with the positive effect found in Gorton and Schmid (2000) for German firms, and Caprio et al. (2004) specifically for banks.

## 5.1 Non-linear relationship

Following Thomsen et al. (2006), we want to test for a non-linear relationship between blockholder ownership and performance in the different institutional settings. In order to do this, we divide the initial sample into two sub-samples: high and low blockholder ownership, and use the same type of econometric analysis employed in the previous section. Since the median level of blockholder ownership is 50%, we decide to split the sample into banks with a mean blockholder ownership below 50% (low concentration sub-sample) and banks with a mean blockholder ownership equal to or above 50% (high concentration sub-sample). *Table 5* contains some summary statistics describing these two sub-samples. We can observe that the division has left us with a very small number of observations in the high concentration sub-samples corresponding to the English and Scandinavian families.

*Table 6* presents the results for the two sub-samples of the GMM regressions with robust standard errors and the standard tests on the validity of the instruments (Sargan test) and the inexistence of second-order correlation of the residuals.

shareholdings and board representation to improve firm performance, and in a more beneficial way than nonblank blockholders.

If we start with the low concentration sub-sample, we observe that the importance of differentiating the effects across legal families is further emphasized here. While the coefficient of blockholder ownership is again non-significant for the sample as a whole (though, the sign has changed to positive in this case, see model I in the first column of *Table 6*); this variable becomes significant in all groups when we allow for different slopes (see model II in the second column of *Table 6*). Our baseline – the French legal family- presents a significant positive coefficient, and the Scandinavian family would be expected to experiment the same behaviour as the coefficient of its interaction term does not significantly differ from the baseline. In contrast, the German (again) and English families present a significantly different negative effect of blockholder ownership on firm value.

While these results further emphasize the important role of the institutional factors for the relationship between blockholder ownership and bank performance, it might be helpful for the interpretation to look again at the information on the identity of the typical blockholder in Caprio et al. (2004). Besides confirming that German financial corporations are not good at being blockholders, we might think that trust and foundations, the predominant large owners for banks in the Netherlands (belonging to the French family) and Scandinavia, are regarded as good contributors to the firm. However, the interpretation for the other two groups is less clear, as banks from both the French and English family are primarily in the hands of individuals or families (Caprio et al., 2004). To help us in this task, we can look at the level of legal protection of minority investors granted in each system, since it is a factor that has been previously shown to be associated to changing effects of ownership on performance. (La Porta el al., 1999; Lins,

2003; Caprio et al., 2003). According to this, low levels of investor protection —such as those present in civil law countries (LLSV, 1998) - would strengthen the positive effect of ownership, and can explain our results for the French and Scandinavian families, when compared to the Anglo-Saxon countries, where the legal protection of investors would be highest, confirming previous evidence on the issue (Lins, 2003; Caprio et al., 2003). In the case of the German family —also of civil law origin—, this positive effect of large investors in the presence of poor investor protection might be cancelled out by the larger negative impact of having financial institutions as the major owners, giving an overall negative effect of ownership concentration on performance in these countries.

Regarding the control variables in *Table 6*, the results in both models I and II are very similar to those presented in *Table 4*: a significant positive effect of the lagged dependent variable, an also significant but negative effect of bank size, and positive but insignificant coefficient for the capital ratio.

If we move now to the results obtained for the high concentration sub-sample shown in the two last columns of *Table 6*, we see that the picture changes dramatically. All coefficients related to blockholder ownership, both in models I and II, lose all significance and appear with a negative sign. The same happens in the case of bank size, which is not longer significantly relevant for performance. Apart from the constant term, only the lagged dependent variable maintains – and it even increases- its significance as a determinant of the present firm value.

Model specification is generally supported in all regressions by the Sargan test and the test on no second-order correlation of residuals.

This lack of significance of the variable on blockholder ownership in the high concentration sub-sample could be explained by the fact that, when the level of ownership concentration is very high, potential investors in the company may have lower incentives to reward or punish changes in ownership that will not challenge the already established dynamics of decision-making in the firm.

These results confirm previous findings on the existence of a non-linear effect of ownership concentration on financial performance (Thomsen et al., 2006).

### 5.2 Blockholder ownership and return on assets

As a robustness check on previous results and consistently with previous literature on corporate governance (Yermack 1996, Thomsen et al. 2006, Adams and Mehran 2005), this section examines the relationship between blockholder ownership and an accounting measure of performance, such as return on assets. However, the use of profitability ratios is not without problems, especially in the banking industry, where previous literature is in favour of using market-based measures of performance (Boyd and Runkle, 1993; Adams and Mehran, 2005), as banks' gains and losses (particularly, loan losses) may not be incorporated into the accounting results in a timely manner. Therefore, we can hardly expect the same relationship between ownership characteristics and return on assets in our sample of banks as it has been described in non-banking samples (e.g. Thomsen et al., 2006).

In *Table 7* we investigate the relation between blockholder ownership and return on assets, and the possible influence of the legal tradition on this relationship. Again, we run GMM regressions with robust standard errors using model I, as the basic

specification, and model II when we want to control for different behaviours in the legal families. In both cases, we can see that the only variable having any significant effect on ROA would be its own lagged value, which affects it positively, as expected.

In *Table 8* we perform the same analysis as in *Table 7* but on the two different sub-samples of high and low average concentration, exploring this way the possible existence of a non-linear relationship between blockholder ownership and return on assets, in the sample as a whole, and in the different legal families. For the low concentration sub-sample, the results resemble those obtained in *Table 7*, with the lagged dependent variable having the only significant (and positive) coefficient. However, the results for the high concentration sub-group are largely unexpected: blockholder ownership appears to have a strong and significant positive effect on ROA for banks belonging to the English legal family, while all remaining variables lack any significance to determine the changes of this measure of profitability, with the exception of a significant positive effect of the capital ratio in model I.

Again in this section, the values obtained in the tests for instrument validity and no second-order autocorrelation allow us to be quite confident on the goodness of the model specification.

If we look again at the summary statistics presented in *Table 5* trying to understand the positive effect of blockholder ownership on ROA in the high concentration sub-sample, we see that given the reduced number of observations in this category (corresponding to only three banks), it would be advisable to take this result with caution.

Therefore, from this analysis we can conclude that blockholder ownership does not play an important role in explaining the variation in ROA, independently of the legal tradition or the average level of ownership concentration.

#### 6. Conclusions

In this paper we investigate the relationship between blockholder ownership and bank performance, and provide new evidence on the role of the institutional factors, as proxied by the legal families in LLSV (1998), to determine the nature of this relationship.

Our results confirm the existence of differences in the effect that an increase in the level of ownership concentration can have in the different institutional settings. While a rise in blockholder ownership may be punished by investors in the German and English families with a fall in the share price; blockholders may have a beneficial effect for banking firms in the French and Scandinavian families. However, these effects are only significant for average levels of blockholder ownership below 50% and Tobin's Q as the measure of performance (as opposed to return on assets); otherwise, the potential gain or loss associated to a change in ownership becomes irrelevant.

We posit that the actual effect of ownership concentration on performance may be explained as a combination of two elements: the level of investor protection and the identity of the predominant blockholders. While the lower level of investor protection granted in civil law countries (LLSV, 1998) could be behind the positive effect of large investors for performance, we believe an important element for the understanding why this effect if prevalent in the French and Scandinavian families, but not in the German one, could be the identity of the predominant blockholders in each legal system. This

way, the negative effect of ownership concentration found in Germany could be related to a general scepticism on the governance role of German banks, in this case as main shareholders in other banks. On the other hand, the good governance exercised by trusts and foundations could explain the positive relationship found in Scandinavia. We derive these ideas relying on previous work by Caprio et al. (2004) on the identity of bank owners. However, to optimally investigate this issue, we would need information on the owners' identity over several years. An interesting avenue for further research would focus on the analysis of blockholder ownership, the identity of the blockholders, institutional factors, and their combined effect on performance, ideally using panel dataset to better deal with the potential endogeneity of the ownership variables.

Likewise, our knowledge on the relationship between ownership and performance would be undoubtedly enriched by explicitly looking at the consolidation process occurred in the EU banking sector during the last years, and investigating the possible interaction between ownership, performance and product market competition in European banking.

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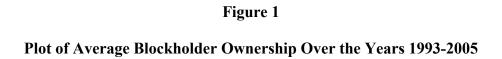
Table 1
Empirical variables

Name	Description	Definition
Tobin's Q (Q)	The transformation of the sum of the market value of equity plus the book value of debt to the book value of assets.	Log [(market capitalization + total debt)/total assets]
Blockholder ownership	Transformation of the fraction of closely held shares. Closely held shares are shares held by owners that hold more than 5%, officers, directors and their families, trusts, pension/benefit plans and by another corporation.	Log [closely held shares (%)] = log [(closely held hares / common shares outstanding) * 100]
Market Capitalization	Total market value of the company.	Market Capitalization = Market Price- Year End * Shares Outstanding
Total Assets	The transformation of the sum of cash & due from banks, total investments, net loans, customer liability on acceptances, investment in unconsolidated subsidiaries, real estate assets, net property, plant and equipment and other assets.	Log (total assets)
Capital ratio	The ratio of total capital to the book value of total assets.	(Total Capital / Total Assets)* 100
English	Incorporated in a country belonging to the English legal family (the UK and Ireland, in this case), or elsewhere.	Dummy that equals 1 for countries belonging to the English legal family, and 0 otherwise
French	Incorporated in a country belonging to the French legal family (Belgium, France, Greece, Italy, Luxembourg, Netherlands, Portugal and Spain, in this case), or elsewhere	Dummy that equals 1 for countries belonging to the French legal family, and 0 otherwise
German	Incorporated in a country belonging to the German legal family (Germany, Austria and Switzerland, in this case), or elsewhere.	Dummy that equals 1 for countries belonging to the German legal family, and 0 otherwise.
Scandinavian	Incorporated in a country belonging to the Scandinavian legal family (Norway, Sweden, Denmark and Finland, in this case), or elsewhere.	Dummy that equals 1 for countries belonging to the Scandinavian legal family), and 0 otherwise
Return on assets	After tax returns on total capital	(Net income before preferred dividends + ((interest expense on debt-interest capitalized)*(1-tax rate))) / (last year's total assets)) * 100

Source: Worldscope with the exception of Tobin's Q (author's calculations based on Worldscope).

Table 2
Summary statistics for sample of banks from 1993-2005

	Observations	Mean	Std. Dev.	Minimum	Maximum
Panel A: All companies					,
Closely Held Shares (%)	2199	47.56	32.93	0	100
Tobin's (Q)	2199	1.05	0.23	0.50	8.51
Return on assets	2096	1.16	2.82	-77.36	22.52
Market value (in millions €)	2199	5084.56	13492.56	0.25	188646.30
Total assets (in millions €)	2198	71125.83	166622.40	17.97	1585712
Capital ratio (%)	2113	23.62	18.39	-18.09	100
Panel B: Anglo-Saxon companies					
Closely Held Shares (%)	221	15.87	19.68	0.01	79.57
Tobin's (Q)	221	1.11	0.23	0.52	2.98
Return on assets	198	1.79	4.63	-52.37	8.94
Market value (in millions €)	221	18020.56	32149.96	5.42	188646.30
Total assets (in millions €)	221	161699.10	282567.90	17.97	1585712
Capital ratio (%)	201	20.49	19.87	0.79	98.67
Panel C: Continental companies					
Closely Held Shares (%)	1978	51.10	32.21	0	100
Tobin's (Q))	1978	1.05	0.23	0.50	8.51
Return on assets	1898	1.10	2.55	-77.36	22.52
Market value (in millions €)	1978	3639.23	8159.81	0.25	82195.28
Total assets (in millions €)	1977	61001.04	144770.40	22.03	1482838
Capital ratio (%)	1912	23.95	18.20	-18.09	100
Panel D: French family					
Closely Held Shares (%)	1090	52.42	30.84	0	100
Tobin's (Q)	1090	1.07	0.31	0.50	8.51
Return on assets	1050	1.13	3.19	-77.36	21.26
Market value (in millions €)	1090	4236.88	9174.44	0.25	82195.28
Total assets (in millions €)	1089	67068.37	159646.70	22.03	1482838.00
Capital ratio (%)	1053	22.00	19.71	-18.09	100
Panel E: German family					
Closely Held Shares (%)	561	65.92	29.17	0	100
Tobin's (Q))	561	1.04	0.09	0.63	1.92
Return on assets	540	0.88	1.53	-6.02	22.52
Market value (in millions €)	561	3266.18	7526.93	18.36	56793.56
Total assets (in millions €)	561	66344.82	146087.80	25.68	1165378
Capital ratio (%)	549	29.65	16.34	4.21	88.77
Panel F: Scandinavian family					
Closely Held Shares (%)	327	21.27	19.36	0	90
Tobin's (Q))	327	1.00	0.04	0.89	1.20
Return on assets	308	1.39	1.15	-1.51	14.59
Market value (in millions €)	327	2287.09	4693.11	2.75	27573.27
Total assets (in millions €)	327	31627.41	65400.91	54.72	384526.70
Capital ratio (%)	310	20.49	13.05	2.38	93.21



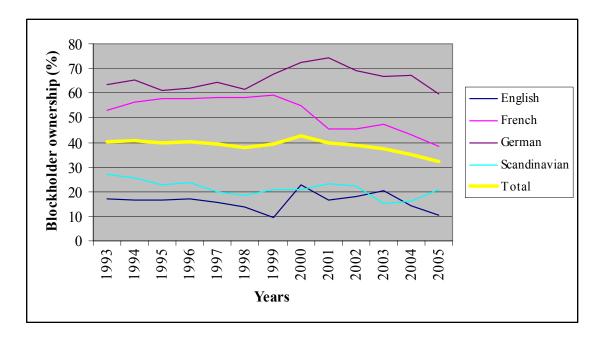


Table 3
Correlation matrices

Matrix A: All companies					
(Observations: 2034)	1	2	3	4	5
(1) Blockholder ownership	1				
(2) Tobin's (Q)	0.052	1			
(3) Return on assets	-0.042	0.146	1		
(4) Total assets	-0.268	-0.046	-0.010	1	
(5) Capital ratio	0.143	0.101	0.044	-0.132	1
Matrix B: Anglo-Saxon companies					
(Observations: 189)	1	2	3	4	5
(1) Blockholder ownership	1				
(2) Tobin's (Q))	0.086	1			
(3) Return on assets	-0.093	0.366	1		
(4) Total assets	-0.461	-0.150	-0.041	1	
(5) Capital ratio	0.186	0.388	-0.094	-0.213	1
Matrix C: Continental companies					
(Observations: 1845)	1	2	3	4	5
(1) Blockholder ownership	1				
(2) Tobin's (Q)	0.080	1			
(3) Return on assets	-0.016	0.112	1		
(4) Total assets	-0.213	-0.051	-0.017	1	
(5) Capital ratio	0.133	0.079	0.078	-0.109	1
Matrix D: French family					
(Observations: 1023)	1	2	3	4	5
(1) Blockholder ownership	1				
(2) Tobin's (Q)	0.087	1			
(3) Return on assets	0.032	0.108	1		
(4) Total assets	-0.270	-0.062	-0.006	1	
(5) Capital ratio	0.025	0.139	0.097	-0.138	1
Matrix E: German family					
(Observations: 530)	1	2	3	4	5
(1) Blockholder ownership	1				
(2) Tobin's (Q)	-0.059	1			
(3) Return on assets	-0.042	0.254	1		
(4) Total assets	-0.355	-0.121	-0.065	1	
(5) Capital ratio	0.221	-0.295	0.000	-0.103	1
Matrix F: Scandinavian family					
(Observations: 292)	1	2	3	4	5
(1) Blockholder ownership	1				
(2) Tobin's (Q))	0.137	1			
(3) Return on assets	-0.049	0.067	1		
(4) Total assets	0.031	0.314	0.067	1	
(5) Capital ratio	0.015	-0.007	0.334	0.068	1
· / 1					

Table 4

The effect of blockholder ownership on bank performance

	Dependent variable: Tobin's Q		
Independent variable	(I)	(II)	
Tobin's $Q(Q)_{(t-1)}$	0.430***	0.387***	
	0.000	0.002	
Blockholder ownership	-0.001	0.000	
Bioekholder ownership	0.880	0.966	
	0.000	0.700	
English * Blockholder ownership		-0.007	
		0.511	
Cormon * Ploakhalder awnership		-0.035***	
German * Blockholder ownership		0.003	
		0.003	
Scandinavian* Blockholder ownership		0.002	
•		0.687	
Total aggets	0.110***	0.104***	
Total assets	-0.118***	-0.104***	
	0.000	0.000	
Capital ratio	0.000	0.001	
	0.470	0.276	
***	<b>3</b> 7	<b>X</b> 7	
Year dummies	Yes	Yes	
Constant	0.015***	0.013***	
	0.000	0.000	
Observations	1368	1368	
Number of groups	257	257	
Instrument validity (Sargan test)	P = 0.177	P = 1.000	
Second-order correlation of residuals	P = 0.182	P = 0.174	

This table shows the GMM regression results using the Arellano and Bond (1991) method and considering blockholder ownership to be an endogenous variable. Following recommendations in Arellano and Bond (1991), we present robust one-step parameter estimates and one-step second-order correlation test, but the Sargan test was obtained through the two-step procedure.

Table 5

Non-linear effect of blockholder ownership on bank performance

Summary statistics of the two subsamples

	Low concentration		High concentration			
	Obs.	Mean	Std. dev.	Obs.	Mean	Std. dev.
Panel A: All companies						
Blockholder ownership (%)	1105	20.52	18.62	1094	74.87	18.54
Tobin's (Q)	1105	1.05	0.14	1094	1.06	0.30
Return on assets	1048	1.33	2.44	1048	1.00	3.15
Market value (in millions €)	1105	8,465	18,099	1,094	1,670	3,464
Total assets (in millions €)	1104	110,111	214,428	1,094	31,784	79,506
Capital ratio (%)	1053	21.58	16.14	1060	25.66	20.19
Panel B: Anglo-Saxon companies						
Blockholder ownership (%)	203	11.93	14.37	18	60.27	17.00
Tobin's (Q)	203	1.12	0.23	18	1.02	0.05
Return on assets	182	1.86	4.80	16	1.01	1.59
Market value (in millions €)	203	19,571	33,106	18	534	782
Total assets (in millions €)	203	175,580	290,821	18	5,159	7,897
Capital ratio (%)	184	21.30	20.34	17	11.71	10.68
Panel D: French family						
Blockholder ownership (%)	454	23.78	19.72	636	72.87	18.68
Tobin's (Q)	454	1.05	0.13	636	1.08	0.39
Return on assets	437	1.19	1.80	613	1.08	3.88
Market value (in millions €)	454	7,607	12,565	636	1,831	4,219
Total assets (in millions €)	453	116,450	210,588	636	31,895	95,518
Capital ratio (%)	438	21.42	16.85	615	22.42	21.52
Panel E: German family						
Blockholder ownership (%)	154	29.45	21.76	407	79.72	17.31
Tobin's (Q)	154	1.04	0.08	407	1.04	0.09
Return on assets	151	1.01	1.14	389	0.83	1.66
Market value (in millions €)	154	8,150	12,864	407	1,418	1,820
Total assets (in millions €)	154	153,927	246,090	407	33,206	51,033
Capital ratio (%)	151	24.49	12.71	398	31.61	17.14
Panel F: Scandinavian family						
Blockholder ownership (%)	294	16.72	13.86	33	61.74	13.43
Tobin's (Q)	294	1.00	0.04	33	1.02	0.03
Return on assets	278	1.39	1.17	30	1.42	1.01
Market value (in millions €)	294	2,286	4,818	33	2,299	3,438
Total assets (in millions €)	294	32,188	67,901	33	26,630	36,480
Capital ratio (%)	280	20.42	13.17	30	21.11	12.12

Table 6

Non-linear effect of blockholder ownership on bank performance

	Dependent variable: Tobin's Q			
	Low con-	centration	High concentration	
Independent Variable	(I)	(II)	(I)	(II)
Tohin's (O)	0.221*	0.210*	0.657***	0.656444
Tobin's (Q) (t-1)	0.231*	0.210*	0.657***	0.656***
	0.062	0.094	0.000	0.000
Blockholder ownership	0.005	0.006*	-0.009	-0.006
	0.397	0.089	0.278	0.255
English* Blockholder ownership		-0.021**		-0.035
		0.014		0.258
German * Blockholder ownership		-0.030***		-0.014
•		0.001		0.486
Scandinavian * Blockholder ownership		-0.004		-0.048
		0.362		0.238
Total assets	-0.124***	-0.103***	-0.057	-0.050
Total assets	0.000	0.000	0.136	0.150
	0.000	0.000	0.130	0.130
Capital ratio	0.001	0.001	0.000	0.000
	0.156	0.191	0.924	0.854
Year dummies	Yes	Yes	Vas	Vaa
i ear duminies	res	i es	Yes	Yes
Constant	0.014***	0.013***	0.009**	0.008**
	0.000	0.000	0.025	0.031
Observations	668	668	700	700
Number of groups	128	128	129	129
Instrument validity (Sargan test)	P = 0.910	P = 1.000	P = 0.718	P = 1.000
Second-order correlation of residuals	P = 0.215	P = 0.336	P = 0.932	P = 0.885

This table shows the GMM regression results using the Arellano and Bond (1991) method and considering blockholder ownership to be an endogenous variable. Following recommendations in Arellano and Bond (1991), we present robust one-step parameter estimates and one-step second-order correlation test, but the Sargan test was obtained through the two-step procedure.

Table 7

The effect of blockholder ownership on bank profitability

	Dependent variable: Return on assets		
Independent variable	(I)	(II)	
Return on assets (ROA) (t-1)	0.112***	0.072**	
	0.001	0.016	
Blockholder ownership	0.099	0.334	
•	0.475	0.274	
English* Blockholder ownership		-0.150	
English Brockholder ownership		0.648	
Campan * Disability and an armanchin		0.550	
German* Blockholder ownership		-0.572	
		0.221	
Scandinavian* Blockholder ownership		-0.367	
		0.238	
Total assets	0.579	0.353	
	0.207	0.366	
Capital ratio	0.016	0.013	
	0.204	0.241	
Year dummies	Yes	Yes	
Constant	-0.008	0.010	
	0.878	0.826	
Observations	1280	1280	
Number of groups	252	252	
Instrument validity (Sargan test)	P = 0.619	P = 1.000	
Second-order correlation of residuals	P = 0.359	P = 0.285	

This table shows the GMM regression results using the Arellano and Bond (1991) method and considering blockholder ownership to be an endogenous variable. Following recommendations in Arellano and Bond (1991), we present robust one-step parameter estimates and one-step second-order correlation test, but the Sargan test was obtained through the two-step procedure.

Table 8

Non-linear effect of blockholder ownership on bank profitability

	Dependent variable: Return on assets			
	Low cone	Low concentration		centration
Independent Variable	(I)	(II)	(I)	(II)
Return on assets (ROA) (t-1)	0.080***	0.065**	-0.072	-0.107
	0.001	0.031	0.721	0.539
Blockholder ownership	0.047	0.332	0.086	-0.070
1	0.724	0.249	0.827	0.792
English * Blockholder ownership		-0.382		1.870***
		0.266		0.000
German* Blockholder ownership		-0.781		0.373
German Bioeknoider ownership		0.104		0.373
		0.104		0.555
Scandinavian * Blockholder ownership		-0.333		0.201
-		0.239		0.839
Total assets	-0.269	-0.290	0.983	0.626
Total assets	-0.269 0.425	0.304	0.983	0.626
	0.423	0.304	0.219	0.301
Capital ratio	-0.002	0.004	0.021*	0.008
	0.936	0.859	0.088	0.407
Year dummies	Yes	Yes	Yes	Yes
1 000 0000000000	103	1 03	1 03	1 03
Constant	0.014	0.011	-0.028	0.015
	0.783	0.798	0.779	0.849
Observations	619	619	661	661
Number of groups	127	127	125	125
Instrument validity (Sargan test)	P = 0.931	P = 1.000	P = 0.872	P = 1.000
Second-order correlation of residuals	P = 0.241	P = 0.255	P = 0.162	P = 0.121

This table shows the GMM regression results using the Arellano and Bond (1991) method and considering blockholder ownership to be an endogenous variable. Following recommendations in Arellano and Bond (1991), we present robust one-step parameter estimates and one-step second-order correlation test, but the Sargan test was obtained through the two-step procedure.

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