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CORPORATE GOVERNANCE AND BANK REGULATION

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CHAPTER 1

BOARD OF DIRECTORS AND PERFORMANCE IN ITALIAN BANKING GROUPS

Giulia Romano, Paola Ferretti, Alessandra Rigolini

1. Introduction

Corporate governance represents a central issue for the modern banking industry. The importance of such matter depends surely on the complexity and diversity of the banking activity compared to the one of the non-financial industry and on the role banks play in the financial markets and in the economy. We mainly refer to the credit intermediation activity, to the particular budgetary structure and, more in general, to the sound and prudent management as a condition to defend all the stakeholders (shareholders, depositors, supervisory authorities, etc.). Corporate governance in banks should help assure an efficient resources allocation and the soundness of the financial system. These are some of the reasons academic studies focus on the banking corporate governance (Adams and Mehran, 2003; Mulbert, 2010).

Nowadays the debate on the central importance of the corporate governance in banks has further raised, because of the financial crisis, that since 2007 the most part of the financial systems is experiencing. Weak corporate governance mechanisms have in fact concurred to accumulate too high and imprudent level of risk: as a consequence, many problems raised in terms of stability of the single institution and of the whole banking sector. Even if not for all the banks, and not always with the same intensity, some severe corporate governance failures and laps exist. It depends also on the connection between corporate governance on one hand and risk management and risk control on the other. Good corporate governance practices could indeed be considered as a complement to risk management and to the control processes, particularly in absence of quantitative approaches of risk measurement. In other words, corporate governance, capital adequacy and organizations represent the three pillars for the international financial system soundness (Draghi, 2008).

During the financial turmoil "a sort of dominance" of the top management within the governance structure has occurred (the running of the compensation and incentive practices are an example of that). This has weakened the control capacity of the governance system. Besides, the existing corporate governance models have showed their partial or total inadequacy with regard to the financial innovation process, that has progressively modified the intermediation approaches during the last decades, moving from the "Originate to Hold" model to the "Originate to Distribute" one (Mottura, 2009).

All this, and more, has highlighted the necessity of a corporate governance strengthening process by the competent authorities both at national and international level. The existing practices and guidelines have been in fact reviewed, or will be reviewed soon, to assure the focus on this priority in the context of the financial markets reform and crisis prevention program (BCBS, 2006; BCBS, 2010; CEBS, 2010; EBA 2011; Banca d'Italia, 2008).

Lastly, it is important to consider corporate governance best practices also with reference to their capability to enhance banks' reputation on the market and the trust the financial system puts on them. In other words, the way the corporate governance structure of banking organizations is defined, in compliance with the regulatory framework, could be able to contribute to reach efficiency objectives and to increase performances.

The present paper aims to analyze the interaction between the corporate governance in the Italian banking groups and their performance during the period 2006-2010. In particular, it gives evidence of the influence board of directors' composition and structure are able to exercise on banks' profitability.

The paper is organized as follows: section 2 focuses on the structure of the Italian banking system and on the trend of the most significant indicators of profitability; section 3 reviews the existing literature about the role of board of directors attributes on banks' profitability, with particular reference to board composition and board structure. In section 4 methods and data are described; next, we present the results of our research and, lastly, concluding remarks highlight the most significant implications of the research.

2. An overview of the Italian banking sector

Since the Nineties many and deep changes have occurred in the Italian banking system. Privatisation, European monetary and economic unification, increased international competition and more operational and organizational complexity represent some examples of the most significant factors that have influenced the evolution of the Italian banking system.

The need to address a different operational scenario – characterized, first of all, by a decreasing capacity of the Net interest income to support the whole banking profitability as in the past and by the necessity to diversify the offer in order to satisfy better the more complex financial demand of the customers – has forced Italian banks to modify their strategies and organizational structures. So, they have answered to these changes also by increasing mergers and takeovers, for the first time considered as a way to enhance profitability, efficiency and the competitive positioning on an international basis. The concentration process approach by banks is in fact connected to the achievement of some advantages, such as economies of scale, especially when referred to the information

technology, the possibility to enter in specific market segments where the business-size is a relevant factor in order to compose an adequate and well diversified-portfolio and, at the same time, to manage a global risk.

With particular reference to the last decade, the Italian banking system degree of concentration has increased significantly. Between 2001 and 2009 the Herfindahl-Hirschman index, a measure of market concentration calculated on the total assets of the units operating in Italy on a scale of 10,000, grew up from 550 to 740; however, as highlighted by Bank of Italy in the Annual Report for 2010, the last year it changed its trend, decreasing by 20 points.

Table 1 shows the evolution of the structure of the Italian banking system during the last five years.

Table 1 – The structure of the Italian banking system

	2006	2007	2008	2009	2010
Banking groups	87 (2)	82 (-5)	81 (-1)	75 (-6)	76 (1)
Banks of which:	703 (9)	806 (13)	799 (-7)	788 (-11)	760 (-28)
Limited company banks	245 (2)	249 (4)	247 (-2)	247 (0)	233 (-14)
Cooperative banks	38 (2)	38 (0)	38 (0)	38 (0)	37 (-1)
Mutual banks	436 (-3)	440 (4)	432 (-8)	421 (-11)	415 (-6)
Branches of foreign banks	74 (12)	79 (5)	82 (3)	82 (0)	75 (-7)

Data in brackets indicate the variation with respect to the previous year.
Source: Bank of Italy, Annual Report, various years.

The gradual relevance of groups in our banking sector is further underlined by the fact that at the end of 2010 – as stated by Bank of Italy (2011) – the two largest groups (UniCredit and Intesa Sanpaolo) and the three medium-sized and large groups (Banca Monte dei Paschi di Siena, Banco Popolare and Unione di Banche Italiane - UBI) held respectively 32.9 and 18.9 per cent of the total assets. The remaining 48.9 of the system assets refers to 58 medium-sized and small groups and stand-alone banks (for 36.9 per cent) and to 571 small banks principally oriented to local markets (for 11.3 per cent).

During the period 2001-2010 the portion of total assets held by the top five Italian banking groups (by total assets) rose from 46.5 to 51.8 per cent.

Until 2006 and 2007 the profitability of the Italian banking groups was not yet largely influenced by the effects of the financial turmoil (table 2 and table 3).

In 2006 both the Net interest income, as result of the core business, and the Gross income (Net interest income plus Non-interest income) rise, respectively, by 10.0 and 8.8 per cent. The Ratio of non-interest income to gross income, as measure of diversification of revenues, is 47,4 per cent (the previous year it was 48 per cent); the Cost-income ratio (operating expenses to gross income) is 59.9 per cent (62.3); the Return on equity (ROE) is 13.8 per cent (12.7). Considering the five largest banking groups, values are quite similar: the Net interest income is 9.0 per cent and the Gross income is 8.0 per cent; the Ratio of non-interest income to gross income is 48.2 per cent (48.7), the Cost-income ratio is 59.5 per cent (61.3) and the ROE is 15.6 per cent (14.6).

With reference to 2007 all the groups register an increase of 8.4 per cent in Net interest income, due principally to the volume of business that continues to grow strongly; the Gross income on the contrary decreases by 0.6, because of the negative impact from trading in securities portfolio and the fair-value valuation of securities, especially structured finance instruments. The main groups register worse changes for the two cited margins: in the first case 5.2 per cent and in the second one -3,5 per cent. Table 2 shows the profitability indicators for all the groups; there are no big differences for the five largest ones.

In 2008 the changes the financial crisis transfers on the profitability of the banking groups are more evident. Even if the Net interest income increases by 10.8 per cent, it is not sufficient to offset the fall in other incomes. For the five largest groups the Net interest income grows up by 10.3 per cent and the Gross income decreases more than the others' one (-7.5 per cent). The Ratio of non-interest income to gross income is 33.4 per cent, the Cost-income ratio is 66.3 per cent and the ROE (5.9 per cent) is a little better than the average one; it is important to notice that the ROE of the main euro-area banking groups averages just over 3 per cent.

Table 2 – Profitability Margins and Indicators of the Italian banking groups

	2006		2007		2008	
	All groups	Main groups	All groups	Main groups	All groups	Main groups
Margins (growth rate percentage)						
Net interest income	10.0	9.0	8.4	5.2	10.8	10.3
Gross income	8.8	8.0	0.6	-3.5	-5.6	-7.5
Indicators (percentage)						
Ratio of non-interest income to gross income	47.4	48.2	43.4	44.4	33.6	33.4
Cost-income ratio	59.9	59.5	59.8	58.8	66.5	66.3
ROE	13.8	15.6	12.9	14.7	4.8	5.9

Source: Bank of Italy, Annual Report, various years.

Since 2009 data on the Italian banking groups profitability are no longer available; existing data refer to the whole banking system and to the five largest groups.

In 2009 banking profitability deteriorates further: the decrease in the Net interest income (-5.8 per cent) depends on the reduction in the margins on funding and in the volume of assets; the slight increase in the Gross income is driven principally by profits connected to trading. For the main groups the profitability values are worse than the national average ones; also in comparison with 12 European large banks the five Italian main groups show bad results. In particular the ROE of the foreigner sample is 7.0 per cent; the difference seems to depend on the smaller intensity of the trading activity and on the bigger influence of taxes in the case of the Italian institutions.

The worsening of profitability goes on also during 2010. The strong decrease of the Net interest income (-8.2) is mainly due to a further narrowing of the spread between lending and deposit rates, close to zero. Also for the main groups there is no significant improvement. The very slight increase of the ROE leads to 3.9 per cent, while the value registered by the sample of 12 European large banks is 7.8 per cent. The higher value for the foreigner banks is connected to the profitability of the trading activity and to the raise of the Net Interest income; both of them instead decline in the Italian largest groups.

Table 3 – Profitability Margins and Indicators of the total banking system and of the five largest banking groups

	2009		2010	
	Total banking system	Main groups	Total banking system	Main groups
Margins (growth rate percentage)				
Net interest income	-5.8	-6.2	-7.6	-8.2
Gross income	1.0	-3.7	-1.8	-4.2
Indicators (percentage)				
Ratio of non-interest income to gross income	39.0	41.4	37.9	41.5
Cost-income ratio	62.7	65.5	61.9	63.7
ROE	3.6	3.4	3.6	3.9

Source: Bank of Italy, Annual Report, various years.

3. Literature review

In the last twenty years several studies have analysed the relationship between performance and corporate governance in banks (see Table 4). Existing empirical researches regard banks operating in different countries, from American (the USA, Canada, Argentina, Brasil) to European ones (UK, Spain, France etc), from Asian (China, India, Taiwan etc) to African ones (Tunisia). In addition, many of them offer an international cross-country comparison (e.g. Agoraki *et al.*, 2009; De Andres and Vallelado, 2008; Busta, 2007).

Numerous studies focus on bank efficiency and productivity growth and use mainly the Data Envelopment Analysis (DEA) method (Fethi and Pasiouras, 2010). However to analyse bank performance, many other empirical researches use financial performance indicators, such as Return on Asset (ROA) and Return on Equity (ROE), and/or other measures of performance, such as Tobin's q. As highlighted recently by Grove *et al.* (2011), ROA is the most widely used financial indicator.

The number of banks analysed varies from a maximum of more than three hundred considering 17 countries (Grigorian and Manole, 2006) to a minimum of 10 banks in Tunisia (Trabelsi, 2010).

Italian banks have been studied only by few papers, both exclusively (Romano *et al.*, 2012; Favero and Papi, 1995) and in international cross-country comparisons (Agoraki et al., 2009; De Andres and Vallelado, 2008; Busta, 2007; Staikouras *et al.*, 2007).

The two studies that focused only on the Italian banking system use the DEA method; moreover, they concern limited periods (one year, 1991, for Favero and Papi, 1995 and two years, 2007 and 2010, for Romano et al., 2012) and few corporate governance issues (bank type for Favero and Papi, 1995 and board size and composition for Romano et al., 2012).

The most studied corporate governance issues linked with bank performance is bank ownership structure, even if with contrasting results (e.g. state-owned vs private banks: Staub et al., 2009, Berger *et al.*, 2005, Mercan *et al.*, 2003; state-owned commercial banks vs joint-stock commercial banks: Ariff and Can, 2008; foreign vs domestic banks: Isik, 2008, Sathye, 2003).

Quite scarce are the empirical researches that analyse the link between the performance of banks and board of directors attributes, such as size and composition (number or percentage of non- executive or independent members), board remuneration, existence and composition of board committees and women directorship. In particular it is worth mentioning that no previous studies have analysed simultaneously all the above cited board of directors attributes.

Table 4 – Main studies that link bank corporate governance and performance

Authors	Year	Performance method/indicators	Country	Observation period	Board size	Board composition	Board remuneration	Board committees existence & composition	Women director-ship	Owner ship
Romano et al., 2012	2012	DEA	Italy	2007 and 2010	=	=				
Grove et al., 2011	2011	ROA	USA	2005-2008	concave		+			X
Shelash Al-Hawary, 2011	2011	Tobin's Q	Jordan	2002-2009	=	+				X
Trabelsi, 2010	2010	Tobin's Q	Tunisia	1997-2007	-	+				X
Agoraki et al., 2009	2009	Stachastic frontier model	Europe	2002-2006	-	no linear				
Belkir, 2009	2009	Tobin's Q	USA	2002						X
Staub et al., 2009	2009	DEA	Brasil	2000-2007						X
Adams and Mehran, 2008	2008	Tobin's Q and ROA	USA	1986-1999	+	=				
Ariff and Can, 2008	2008	DEA	China	1995-2004						X
De Andres and Vallelado, 2008	2008	Tobin's Q, ROA, annual market return of a bank shareholder	Canada, USA, UK, Spain, France, Italy	1996-2005	inverted U shaped	+				
Garcia-Cestona and Surroca, 2008	2008	DEA	Spain	1998-2002						X
Isik, 2008	2008	DEA	Turkey	1981-1996						X
Tanna et al., 2008	2008	DEA	UK	2001-2006		+				
Bino and Tomar, 2007	2007	ROA and ROE	Jordan	1997-2006	=	+				X
Busta, 2007	2007	Market-to-book value, ROIC, ROA	France, Germany, Italy, Spain, UK	1996-2005	=	+				
Love and Rachinsky, 2007	2007	ROA, ROE and other financial indicators	Russia and Ukraine	2003-2006	=	=				X
Pathan et al., 2007	2007	ROA and ROE	Thailand	1999–2003	-	+				

Authors	Year	Performance method/indicators	Country	Observation period	Board size	Board composition	Board remuneration	Board committees existence and composition	Women directorship	Ownership
Staikouras et al., 2007	2007	ROA, ROE and Tobin's Q	Europe	2002–2004	-	+				
Zulkafli and Samad, 2007	2007	ROA and Tobin's Q	Malaysia, Thailand, the Philippines, Indonesia, Korea, Singapore, Hong Kong,Taiwan, India	2004	=	=				
Grigorian and Manole, 2006	2006	DEA	17 East Europe countries	1995-1998						X
Mayur and Saravanan, 2006	2006	Tobin's Q and Market-to-Book ratio	India	2001-2005	=					
Sierra et al., 2006	2006	ROA and shareholder return	USA	1992-1997	-	+	+			
Adams and Mehran, 2005	2005	ROA and Tobin's Q	USA	1959-1999	+	=				
Berger et al., 2005	2005	Profit Efficiency Rank, ROE, Cost Efficiency Rank, Costs/Assets	Argentina	1993:Q2-1999						X
Hauner, 2005	2005	DEA	Germany and Austria	1995-1999						X
Amess and Drake, 2003	2003	DEA	UK	1991-1996			+			
Isik and Hassan, 2003	2003	DEA	Turkey	1988-1996						X
Mercan et al., 2003	2003	DEA	Turkey	1989-1999						X
Sathye, 2003	2003	DEA	India	1997						X
Griffith et al., 2002	2002	MVA, EVA and Tobin's q	USA	1995-1999						X
Isik and Hassan, 2002	2002	DEA	Turkey	1988-1996		+				X
Simpson and Gleason, 1999	1999	SNL Safety Rating	USA	1993	=	=				X
Chen, 1998	1998	DEA	Taiwan	1996						X
Favero and Papi, 1995	1995	DEA	Italy	1991						X
Pi and Timme, 1993	1993	ROA and Stochastic frontier model	USA	1988-1990		=				X

Note: +: positive relationship; -: negative relationship; =: no relationship with bank performance; X: issue analysed

Board size

Nowadays, it is still a relevant question which is the appropriate board size. As a matter of fact, the empirical evidences on the best board size in influencing firm performance is inconclusive. While some Authors argue that when boards grow, they become less likely to function effectively (Jensen, 1993), may create a diminished sense of individual responsibility and might be more involved in bureaucratic problems, providing worst financial reporting oversight and lowering company performance (Yermack, 1996; Amason and Sapienza, 1997; Eisenberg *et al*.,1998; Conyon and Peck, 1998; Golden and Zajac, 2001; Mak and Kusnadi, 2005), other Authors, conversely, argue that larger boards are positively associated with higher corporate performance (Pearce and Zahra, 1992) and that a larger board might be more effective in monitoring financial reporting, because the company might be able to appoint directors with relevant and complementary expertise and skills and, thus, draw from a broader range of experiences (Xie et al., 2003; Van de Berghe and Levrau, 2004).

Adams and Mehran (2003) and Hayes et al. (2004) find that US bank holding companies have larger boards than manufacturing firms.

With specific reference to bank industry, some empirical researches regarding different countries find no significant relationship between performance measures and board size (Romano et al., 2012; Shelash Al-Hawary, 2011; Bino and Tomar, 2007; Busta, 2007; Love and Rachinsky, 2007; Zulkafli and Samad, 2007; Mayur and Saravanan, 2006; Simpson and Gleason, 1999).

Differently, some other studies report that improving board size negatively affects banks' performance calculated using different methods and indicators (Trabelsi, 2010; Agoraki et al., 2009; Pathan et al., 2007; Staikouras et al., 2007; Selvam et al., 2006; Sierra et al., 2006).

Only Adams and Mehran (2005 and 2008), analysing publicly traded US bank holding companies, find that banking firms with larger boards do not underperform their peers in terms of Tobin's Q and that constraints on board size in the banking industry may be counter-productive. Thus, the Authors affirm that bank holdings structure and activities may make a larger board more desirable and that increases in board size due to additions of directors with subsidiary directorships may add value.

De Andres and Vallelado (2008), analysing a sample of large commercial banks from six developed countries, find an inverted U-shaped relation between board size and bank performance: the inclusion of more directors in the board improves bank performance but with a limit of 19 directors. Similarly, recently Grove et al. (2011) report a concave relationship between financial performance and board size.

Considering the above mentioned literature, our first hypothesis is:

H1: Performance of Italian banking groups is not significantly related to the size of the board of directors.

Board composition

Board composition is a debated corporate governance issue since it could influence board deliberations and the capability to control top management decisions and results.

Although there is not an optimal formula (Vance, 1978), board independence has became a relevant issue in the corporate governance agenda. As a matter of fact, non-executive and independent directors are considered one of the most important mechanisms for ensuring corporate accountability (Daily *et al.*, 2003; Dalton *et al.*, 1998). An independent board of directors has fewer conflicts of interest in monitoring managers, even if the presence of outside directors entails additional costs to the firm (fees, travel expenses, etc); moreover, as De Andres and Vallelado (2008) highlight, an excessive proportion of non-executive directors could damage the advisory role of boards, since executive directors facilitate the transfer of information between directors and management and give information that outside directors would find difficult to gather.

After the recent corporate scandals, policymakers and regulators worldwide have called for greater independence of boards of directors from the top management of firms (Aguilera, 2005; Dalton and Dalton, 2005). He *et al.* (2009) state that board independence is the most effective deterrent of fraudulent financial reporting. For these reasons, many countries have strengthened recommendations on board composition and independence (Aguilera, 2005; Huse, 2005). As a matter of fact, a recent study shows that nowadays the independence of non-executive directors is a commonly recommended governance practice (Zattoni and Cuomo, 2010).

With reference to banking industry, some empirical researches in the last decades show no significant relationship between board composition, considered as the proportion of outsiders or of independent board members on the board, and banks performance (Romano *et al.*, 2012; Adams and Mehran, 2008; Love and Rachinsky, 2007; Zulkafli and Samad, 2007; Adams and Mehran, 2005; Simpson and Gleason, 1999; Pi and Timme, 1993).

However, the majority of the existing studies shows a significantly positive relationship between board composition and banks' profitability or efficiency, highlighting how banks with a higher presence of non-executives or independent members in their boards perform better than the others (Shelash Al-Hawary, 2011; Trabelsi, 2010; De Andres and Vallelado, 2008; Tanna et al., 2008; Bino and Tomar, 2007; Busta, 2007; Pathan et al., 2007; Staikouras et al., 2007; Sierra et al., 2006; Isik and Hassan, 2002).

So considering the existing literature, our second hypothesis is:

H2: The performance of Italian banking groups is positively related to the proportion of non-executive and/or independent directors on the board of directors.

Number and types of Board committees and committee membership

Board committees act in order to obtain the most effective operation of the board (Van Den Berghe and Levrau, 2004). Committees are important corporate governance tools to monitor corporate activities and can play a valuable role in the protection of shareholder value (Kesner, 1988).

Among the committees that can be created within the board of directors, previous researches assign the most relevant role to the audit committee, charged with the task of giving advice and making proposals on problems considered relevant to the internal control of the company's activities. As a matter of fact, empirical researches show that US firms committing financial reporting fraud are less likely to have an audit committee (Dechow *et al.*, 1996; Beasley *et al.;* 2000; Uzun *et al.*, 2004).

Adams and Mehran (2003) find that US bank holding companies boards have more committees than manufacturing firms. Later, the same Authors (Adams and Mehran, 2005) show that there is a negative and significant relationship between performance and the natural logarithm of the number of committees. Differently, Selvam et al. (2006) state that the number of board committees is one of the yardsticks for better functioning of the bank; they find that board committees number is statistically significant to performance for banks where government has considerable stakes??.

Vance (1983) argues that the compensation and nomination committees are among the board committees that significantly influence corporate activities.

Grove *et al.* (2011) find no association between performance of US Commercial Banks and affiliated audit and compensation committees. In particular, the Authors, according with Larcker *et al.* (2007), define a director who sits on the audit or compensation committee as "affiliated" if he/she is a former employee or mentioned in the "certain transactions" section of the proxy statement and they imply that affiliated committee membership indicates lack of independence by the board.

Moreover, it is worth mentioning that the Italian Corporate Governance Self Discipline Code requires as a best practice that Italian firms have control and risk committee, remuneration and nomination committees and that the first one should consist of non-executive directors, the majority of which should be independent.

So, our hypothesis are:

H3: The performance of Italian banking groups is positively related to the existence of audit, remuneration and nomination committees

H4: The performance of Italian banking groups is positively related to the proportion of independent directors on the audit committee

Board remuneration

In the agency framework, board remuneration is viewed as a relevant and effective tool to align managers' and shareholders' interests, mitigating agency costs and providing a link between managerial actions and performance. Management compensation usually includes various types of incentive pay, such as performance bonuses and stock-based compensation.

Therefore, variable incentive pay is expected to have a positive impact on firm performances. However, excessive stock-based compensation is the focus of a relevant debate throughout the world, since it may encourage risk-taking and create incentives to emphasize short-term performance (Grove *et al*, 2011; Peng and Röell, 2008).

Adams and Mehran (2003) find that the proportion of Chief Executive Officer (CEO) stock option pay to salary plus bonuses are smaller for bank holding companies than manufacturing firms. Differently, Chen *et al.* (2006) show that stock option-based executive compensation is more prevalent at banks versus firms in other industries and that it promotes risk-taking in the banking industry.

Sierra *et al.* (2006) with reference to US bank holding companies report that stock option compensation is the largest component of CEO's compensation when looking at mean compensation.

Grove *et al.*, 2011 show that the extent of incentive executive pay is positively associated with financial performance. Also Amess and Drake (2003) find a strong positive relationship between profitability and pay for the highest paid director but not for the director or chair of US mutual organisations. Accordingly, Sierra *et al.* (2006) prove that CEO compensation is significantly and positively associated with bank performance.

So, our hypothesis is:

H5: The performance of Italian banking groups is positively related to the existence of incentive executive pay

Women directorship

Nowadays board diversity is an highly debated corporate governance topic. In particular, gender diversity, i.e. the presence of women on corporate boards of directors, is considered as an instrument to improve board variety and thus discussions (Anastasopoulos et al., 2002).

However, as reported by Dutta and Bose (2006), the presence of women on boards of directors is limited, even if the literature reveals a slow but steady rise in the female presence on corporate boards throughout the world.

With reference to the relationship between gender diversity and firm performance, the few existing empirical studies show contrasting results. Considering the US context, Zahra and Stanton (1998) find no statistically significant relationship between gender diversity and firm performance. Carter *et al.* (2003) report statistically significant positive relationships between both the presence and the percentage of women on the board of directors and firm value. Also Heinfeldt (2005) finds a positive relationship between the percentage of female board members and the market value added (MVA). Conversely, Shrader *et al.* (1997) show a negative relationship between the percentage of female board members and firm performance.

Focusing on the banking sector, Dutta and Bose (2006) find a positive relationship between gender diversity in the boardroom and financial performance of commercial banks in Bangladesh, even if only with reference to some years. Selvam *et al.* (2006), studying the Indian banking system, show that women directorship is statistically significant to performance for banks where government has a considerable stake.

Considering the existing literature, our last hypothesis is:

H6: The performance of Italian banking groups is positively related to the proportion of female members on the board of directors

4. Method and data

The sample

In this study we examine the effect of board attributes, in terms of composition and structure, on bank profitability. The sample consists of 22 Italian banking groups selected from the Bank of Italy's Registry of Banking Groups, for the period 2006-2010.

We decide to focus on banking groups due to the importance of the concentration process started in Italy in the second half of Nineties; moreover, we believe that bank holding companies are more sensitive than independent banks to governance matters and that consolidated reports are more effective in terms of information disclosure. Furthermore, according to literature (Booth *et al*., 2002; Staikouras *et al*., 2007), the study of the influence of corporate governance on bank performance imposes to consider large and structured banks, where the potential impact of poor governance could be more serious.

Moreover, we believe that the 5-year time period (2006-2010) is adequate to capture and observe changing in the corporate governance of the Italian bank groups, in terms of board composition and structure.

Actually, the initial sample consisted of 75 banking groups, as pointed out in the Bank of Italy's Registry at the end of 2010. Only 40 of these groups present available financial data in Bankscope database. Only 20 groups of this new sample are listed on the Milan Stock Exchange; in these cases corporate governance data have been collected from the "Report on Corporate Governance and Ownership Structures", that intermediaries have to publish yearly. For the not listed groups governance information has been gathered through a questionnaire: only two of the not listed BHCs have participated to our survey. Thus, the final sample includes 22 banking groups (110 observation in total). The sample represents the 29 per cent of the population.

Data collection and measurement

In order to investigate the role of board attributes on bank profitability we have collected two different types of data. The first group of data concerns corporate governance dimensions. Data for board composition and structure are collected from the "Report on Corporate Governance and Ownership Structure" for the listed bank holding companies, and from a questionnaire for the not listed ones.

In particular, according to the literature (Zahra and Pearce, 1989) we focus our attention on the size of the board of directors and on its composition in terms of insiders, outsiders and the representation of minority (women).

Concerning board structure, we observe the existence of three committee that the Italian Corporate Governance Self Discipline Code suggests to appoint and the composition of the control and risk committee in terms of size and rate of outsiders. Moreover, we observe the existence of incentive executive pay (Grove *et al*, 2011; Peng and Röell, 2008).

The second group concerns profitability and accounting data and is constructed using Bankscope Database. The data are reviewed for reporting errors and other inconsistencies. According to literature (Grove *et al*., 2011), we employ two different indexes of profitability: the Return on Asset (ROA) and the Return on Equity (ROE). Moreover, we collect other information, as the number of Employees, the level of Total Asset, the Operating Profit/Risk Weighted Assets of the previous year, and the Tier 1 Ratio. In particular these further variables can provide an indication of the size of the banking groups and their level of risk.

Independent variables

As mentioned above, data on corporate governance dimensions have been collected from the public report of each bank holding companies and with a survey for the not listed banks. The independent variables that we consider are: (i) board size; (ii) board composition; (iii) number and types

of board committees and control and risk committee membership; (iv) board remuneration; and (v) women directorship.

Board size (LS) is described by the number of directors on the board of each bank holding company at the end of each examined financial year. It is captured considering the logarithm of the number of members, for each year considered.

Board composition is referred to the mix of inside/outside directors in the board room. Literature suggests that the presence of non-executive and independent directors represents one of the most important mechanism for ensuring corporate accountability and growth (Daily *et al*., 2003; Dalton *et al*., 1998). These variables are captured considering the percentage of non-executive directors (NE) and the percentage of independent directors (IN). According to literature (Staikouras *et al.*, 2007; Adams and Mehran, 2003) non-executive directors are board members who are not top executive. Instead, the definition of the requirement of independence for board directors is provided by the Italian Corporate Governance Self-Discipline Code. In particular, the Code (2011: 15) points out: "An adequate number of non-executive directors shall be independent, in the sense that they do not maintain, directly or indirectly or on behalf of third parties, nor have recently maintained any business relationships with the issuer or persons linked to the issuer, of such a significance as to influence their autonomous judgement".

Number and types of board committees and committee membership are captured looking at the existence of three different committees: the nomination committee (CN), the compensation committee (CRidem) and the control and risk committee (CCIidem). Each variable is considered as a dummy, which takes the value 0 if the committee is absent and 1 if it has been appointed. Since literature suggests that the committee membership can influence firm performance (Klein, 1995) and the audit committee is the most relevant board committee, we decide to focus our attention on the composition of the control and risk committee. This variable is captured considering the size of the committee (SCCIidem) and the percentage on independent directors who are members of this committee (INCCIidem).

Board remuneration (SOP) is observed considering the existence of incentive executive plans. This is a dummy variable, which takes the value 0 if the incentive plans are absent and 1 if there are the incentive plans.

Finally, we consider as independent variable woman directorship (WO). Board diversity and the representation of minority in the board room is one of the most debated corporate governance topic. We capture this variable considering the percentage of women in each banking groups, for each of five years observed.

Dependent variables

Concerning the profitability variables, we consider two traditional ratios: the Return on Equity and the Return on Asset. The former, the most popular among the financial performance measures, is defined as the Net income on Book value of equity and it represents how much income is brought in versus the amount of money that shareholders have invested; in other words it is an internal indicator of shareholder value. According to many empirical studies we decided to refer to the ROE, even if this ratio is not the most used measure of bank profitability, because it does not focus on relevant variables able to really assess the performance, such as risks, volatility of profits, capital, etc. and also because it is a point in time indicator, so its signaling capacity is declined, especially during the periods of crisis, as the one we are experiencing, when the long term profitability perspectives are very unsure.

With reference to the Return on Asset (ROA), it is the Net income for the year divided by total assets. Traditionally, it is considered a more reliable profitability ratio than ROE, because of the adjustment for the leverage effect (ROA=ROE/leverage), but its prevision capability is not so significant (ECB, 2010).

Control variables

As mentioned above, other variables have been considered in order to better define the banking sample in terms of size, level of risk and capitalization. In particular, banks' size is captured by the logarithm of the total assets and the number of employees; the Tier 1 ratio (Tier 1 divided by Risk Weighted Assets - RWA) represents the adequacy capital ratio in compliance with the well-known Basel 3 framework and it could be considered as a proxy of banks' capital structure and consequently of their soundness.

Lastly, we consider the Operating profit on RWA as a further measure of banks' performance, more sensitive to the risk weighted assets banks have on their books; in particular we selected the ratio referred to the previous year in order to understand if and how the governance decisions in a certain year are conditioned by the past results.

5. Method

The aim of our paper is to investigate the relationship between banks profitability and some corporate governance dimensions, such as board composition and structure. This is tested by implementing the fixed effect model on a panel dataset. First of all, we have opted for a panel dataset instead of a pooled sample, because the 110 observations are referred to 22 different banks over a period of 5 years. We retain important consider the heterogeneity across the banks selected in our sample and that are not visible in cross sections. Indeed, to different banks can correspond different

strategic decisions, that can influence both governance variables and performances over the considered period.

To confirm this hypothesis we have conducted Breusch-Pagan test for heteroskedasticity on the pooled data. The result of the test (Null hypothesis: Variance of the unit-specific error = 0; Asymptotic test statistic: Chi-square(1) = 0.993456 with p-value = 0.318899) validates our assumption.

Second, we tested a random effects model for the analysis of corporate governance dimensions on banks' performance. However, Hausman test (Null hypothesis: GLS estimates are consistent; Asymptotic test statistic: Chi-square(13) = 190.31 with p-value = 1.32591e-033) show that the regression parameters are accurately estimated by the fixed effect model.

Thus, the analysis has been conducted using a fixed effect model using the Gretl program. The following equations summarize our econometric model:

$$ROA=\alpha+\beta 1LS+\beta 2NE+\beta 3IN+\beta 4IN+\beta 5WO+\beta 6CN+\beta 7SCCI+\beta 8INCC+\beta 9SOP+\varepsilon$$

$$ROE=\alpha+\beta 1LS+\beta 2NE+\beta 3IN+\beta 4IN+\beta 5WO+\beta 6CN+\beta 7SCCI+\beta 8INCC+\beta 9SOP+\varepsilon$$

6. Results

Table 5 presents some descriptive statistics regarding the board composition, structure and performance measures for the sample of Italian banking groups over the period 2006-2010.

The size of the board varies from 6 to 25 people, with the mean at 13. Literature provides evidence that bank holding companies maintain larger board than manufacturing firms (Adams and Mehran, 2003; Booth *et al.*, 2002). The larger size of the board in banking groups can be explained considering some reasons. First of all, studies have highlighted that board size is positively related to the firm size (Yermack, 1996), and usually, banks are larger than manufacturing firms. Moreover, the concentration process and the merger and acquisition operations that have affected the financial sector since the beginning of Nineties could also have played a role in maintaining large boards in bank holding companies.

The percentage of non-executives sitting in the boards of directors floats from 16,6 per cent to 100 per cent, with a mean of 76,9 per cent, while, in mean, the board of directors of banking group have 40,7 per cent of independent directors. According to another empirical research (Both *et al*., 2002), our results suggest that the percentage of outsider is bigger in banks than in other firms.

Despite some previous researchers (Anastasopoulos *et al.*, 2002) argue that the presence of women in the board room has improved in the last few years, our findings suggest that the percentage of women in the

board of directors is still limited. According to the result of Dutta and Bose (2006), the presence of women on board floats from 0,00 to 22,2 per cent with a mean of only 2,7 per cent.

Concerning the number and types of board committee and committee membership, our findings suggest a perfect correlation among nomination committee, compensation committee and control and risk committee. This means that a bank holding company that decides to follow the guidelines of the "Corporate Governance Code", and to implement the committees within the board room, decides also to appoint all the three committees that the Code suggests. However, only the 38,8 per cent has all the three committees.

Table 5 - Descriptive statistics (2006-2010)

Variable	Mean	Median	Minimum	Maximum	Std. Dev.	C.V.	Skewness	Ex. Kurtosis
LS	13,46	13,87	6.00	25.00	0.36	0.14	-0.09	-0.87
NE	76,9%	80%	16,6%	100%	0.21	0.27	-0.91	0.23
IN	40,7%	36,3%	0.00%	100%	0.26	0.64	0.70	-0.13
WO	2,7%	0,00%	0.00%	22,2%	0.04	1.61	1.67	2.80
CN/ CR/ CCI	38,8%	0.00	0.00	1.00	0.49	1.26	0.46	-1.79
SCCI	3.70	3.00	0.00	9.00	1.48	0.40	0.09	1.61
INC CI	83,9%	100%	40,00 %	100,00 %	0.18	0.21	-0.43	-1.34
SOP	49,53%	0.00	0.00	1.00	0.50	1.01	0.02	-1.99
TA	106.683.904	23.454.500	372.200	1.045.612.100	226.817.000	212	290	750
T1R	10.56	8.07	5.05	54.90	7.92	0.75	3.67	14.27
OP/RWA (t-1)	1.38	1.00	-8.71	27.98	3.30	2.39	4.80	39.73
ROE	0.94	0.58	-6.94	20.25	2.82	2.99	5.65	37.98
ROA	7.52	7.11	-86.68	46.17	12.23	1.63	-3.71	31.25

Considering the composition of the control and risk committee, the number of members floats from 3 to 9 directors, in which, as a mean, the 83,9 per cent are independents. Literature (Larcker *et al*., 2007) suggests that the presence of independent directors in this committee can imply a strong independence of the board.

Finally, despite some authors have shown that stock option based executives compensation is more prevalent in banks than in other industry (Chen *et al*., 2006), our findings suggest that less than 50 per cent of the bank holding companies observed uses incentive executive plans to mitigate agency problems and motivate the executive long term view.

Table 6 and 7 present our econometric results. When dependent variable is ROE (table 6) only the Hypothesis 2 is supported. In this model we observe a significant positive relationship between the presence of non-executives on the board of directors and banks' profitability, with 5 per cent level of significance. This finding supports our hypothesis and suggests that a board in which non-executives are well represented performs better than the others. According to the literature, the reason for this positive relationship can be that non-executive directors can help the board in performing its monitoring role and ensure an high level of accountability, with a consequent positive effect on bank's profitability (Daily *et al.*, 2003; Tanna *et al.*, 2008; Sierra *et al.*, 2006; Tomar, 2007; Busta, 2007).

The coefficient that captures the percentage of independent directors on board room is also positive, but statistically insignificant. Moreover, the econometric results suggest a negative relationship, even is o if??? statistically insignificant, between the other dimensions of corporate governance and bank's profitability in terms of ROE. The negative coefficients of the other dimensions confirm other previous empirical researches mentioned above, but do not support our Hypothesis 3, 4, 5, 6.

When dependent variable is ROA (table 7) the Hypothesis 2 is supported as well, but with 10 per cent of significance, thus higher than in the previous model. Moreover, in this model we can observe many other interesting findings.

First of all, this model rejects our Hypothesis 1. Indeed, we can highlight a significant negative relationship between the size of board (expressed by the logarithm function) and banks' profitability, with 10 per cent level of significance. This finding seems to be in agreement with a lot of past empirical researches (Trabelsi, 2010, Agoraki *et al.*, 2009) that suggest a negative relationship between board size and bank's performance as a consequence of the fact that when board grows, it become less likely to perform its monitoring and advice roles (Jensen, 1993).

The second important finding that this model highlights is that the size of control and risk committee has a negative and significant (5 per cent) effect on bank's profitability. This result suggests that the presence of such committee has a positive relationship on the ROA, but if its size grows, it performs worst. Thus, our Hypothesis 3 is only partly supported, while Hypothesis 4 is completely rejected. Indeed, our findings show a negative and not significant relationship between the percentage of independent directors in the control and risk committee and Italian bank group's profitability. This result seems confirm the part of literature (Klein, 1995) that highlights how monitoring committees (such as the control and risk committee) is disproportionately composed of independent directors.

Finally, this model presents two main differences, in terms of coefficients' value, from the previous model. First, the percentage of

independent directors affects negatively the bank groups' level of profitability. Second, the existence of stock options plans have a positive relationship, even if statistically not significant, on ROA. Thus, this last result seems to suggest that our Hypothesis 5 is partly supported. Both models reject the Hypothesis 6. Thus, the proportion of female member on the board of directors does not affect banking groups profitability in terms of ROE and ROA.

Table 6 - Fixed effects. Dependent variable ROE

	Coefficient	Std. Error	t-ratio	p-value
Const	-1970.84	2985.66	-0.6601	0.52277
YEAR	1.11	1.46	0.76	0.46
NE	57.51	24.20	2.38	0.036**
IN	12.55	18.62	0.67	0.51
WO	-6.70	101.29	-0.07	0.95
SCCI	-3.96	5.25	-0.75	0.46
ICCI	-26.47	29.43	-0.90	0.39
SOP	-1.14	4.63	-0.25	0.80
TA	6.49568000	8.67248000	0.75	0.47
T1R	2.25	0.59	3.78	0.01***
EM	-0.0009	0.0006	-1.4243	0.1821
CN/CR/CCI	-2.76	17.77	-0.16	0.88
LS	-106.801	65.054	-1.641	0.129
OP/RWA (t-1)	-0.99	0.26	-3.76	0.01***

The t-statistics are presented in parentheses (***, **, and * indicate 1, 5 and 10% significance levels, respectively).

Table 7 - Fixed effects. Dependent variable ROA

	Coefficient	Std. Error	t-ratio	p-value
Const	642.449	653.956	0.9824	0.34701
YEAR	-0.27	0.32	-0.86	0.41
NE	17.59	5.30	3.32	0.01***
IN	-0.78	4.08	-0.19	0.85
WO	-10.52	22.19	-0.47	0.64
SCCI	-2.76	1.15	-2.40	0.03**
ICCI	-7.74	6.45	-1.20	0.25
SOP	0.64	1.01	0.63	0.54
TA	3.818170000	1.89955000	0.20	0.84
T1R	0.94	0.13	7.20	0.00***
EM	-4.9942	0.0001	-0.3497	0.7331
CN/CR/CCI	6.86	3.89	1.76	0.10
LS	-37.68	14.24	-2.64	0.02**
OP/RWA (t-1)	-0.45	0.06	-7.86	<0.00001***

The t-statistics are presented in parentheses (***, **, and * indicate 1, 5 and 10% significance levels, respectively).

7. Concluding remarks

The present study analyzes the relationship between corporate governance of Italian banking groups and their performances focusing on the influence of board of directors' composition and structure on bank holding companies' profitability.

Using the fixed effect model on a panel dataset we examine the effect of board attributes on bank groups profitability in terms of ROE and ROA. The sample consists of 22 Italian banking groups for the period 2006-2010.

We find a significant positive relationship between the presence of non-executives on the board of directors and both ROE and ROA, supporting our hypothesis that a bank holding company's board in which non-executive members are well represented performs better.

We also find that the relationship between the percentage of independent directors on board and ROE is also positive, but it is statistically insignificant.

The other dimensions of corporate governance (board size, number and types of board committees and control and risk committee membership, board remuneration and women directorship) have a negative relationship with bank groups' profitability in terms of ROE, even if statistically insignificant.

Considering ROA, we find a significant negative relationship between board size and Italian bank groups' profitability, confirming that when board grows, it become less likely to perform in the best way its monitoring and advice roles (Jensen, 1993). Moreover, we prove that the size of control and risk committee has a negative and significant effect on bank holding companies' profitability, thus highlighting that the presence of such committee has a positive relationship on performance, but when its size grows, it performs worst.

Differently from expectations, our findings report a negative, even if not significant, relationship between the percentage of independent directors in the control and risk committee and Italian bank group's profitability.

It is worth mentioning that the percentage of independent board members affects in a different way, even if not statistically significant, ROE and ROA: while it has a positive effect on the former, it has a negative effect on the latter. Differently, the existence of stock options plans has a negative effect on the ROE, but a positive effect on the ROA.

Finally, we find that the percentage of women on the board of directors of Italian bank holding companies is still limited, with a mean of only 2,7 per cent. Actually, with such a limited presence, the proportion of female member on the board of directors does not affect banking groups profitability in terms of both ROE and ROA.

This papers extends the literature related to the link between the performance of Italian banking groups and board of directors attributes since it analyses many corporate governance issues (board size and composition, board remuneration, existence and composition of board committees and women directorship) for the first time with reference to Italy, one of the most relevant European Union countries.

The main limit of this research is the small number of bank groups observed even if this limit reflects the size of the Italian banking system and the difficulties in collecting data about not listed companies. So, further research is needed in order to broaden the sample size, including more not listed bank groups. Moreover, it could be interesting to extend the analysis to other relevant corporate governance matters, such as CEO-Chairman duality and ownership type and to realize cross countries comparisons.

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