

# “The impact of corporate governance on the market value of financial institutions: empirical evidences from Italy”

<b>AUTHORS</b>	Rossana Bubbico Marco Giorgino Barbara Monda
<b>ARTICLE INFO</b>	Rossana Bubbico, Marco Giorgino and Barbara Monda (2012). The impact of corporate governance on the market value of financial institutions: empirical evidences from Italy. <i>Banks and Bank Systems</i> , 7(2)
<b>RELEASED ON</b>	Monday, 25 June 2012
<b>JOURNAL</b>	"Banks and Bank Systems"
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

0



NUMBER OF FIGURES

0



NUMBER OF TABLES

0

© The author(s) 2019. This publication is an open access article.

Rossana Bubbico (Italy), Marco Giorgino (Italy), Barbara Monda (Italy)

## The impact of corporate governance on the market value of financial institutions: empirical evidence from Italy

### Abstract

This paper analyses how the quality of the corporate governance system impacts on the market value of the financial institutions listed on the Italian Stock Exchange. Implementing a good corporate governance is costly, therefore, verifying whether the investment is worth its cost is a relevant issue. Despite the central role that financial institutions play in the real economy, there are few studies that focus specifically on the financial industry; filling this gap in literature is especially relevant to Italy, where the enterprises are highly dependent on the banking system for their financing needs.

The first step of the present study is the assessment of the corporate governance quality of the sample companies through the Corporate Governance Index (CGI). CGI is a scoring model that analyzes four different macro-areas of governance: Board, Compensation, Shareholders' and Stakeholders' Rights, and Disclosure. A cross-sectional data regression is then used to study the relationship between the corporate governance quality and the market value of financial institutions. The analysis, using 2010 data, proves that there is a positive and statistically significant correlation between corporate governance and performance: this finding supports the hypothesis that governance creates value for companies and that investments to implement effective governance systems give net positive benefit and should therefore be pursued. Hence financial institutions should be encouraged to improve their corporate governance systems.

**Keywords:** corporate governance, Corporate Governance Index, banks performance, governance of financial institutions.

**JEL Classification:** G21, G32, G34.

### Introduction

The corporate governance is defined by OECD (2004) as the *procedures and processes according to which an organization is directed and controlled*. Hence the corporate governance structure specifies the distribution of rights and responsibilities among the different participants in the organization – such as the board of directors, managers, shareholders and other stakeholders – and lays down the rules and procedures for decision-making.

The increasing interest dedicated to corporate governance can be explained in light of the recent financial scandals like Enron, Worldcom, Cirio. Both investors and shareholders are interested in corporate governance, the former in order to invest with greater awareness and fewer risks, the latter in order to exploit the positive effects of a good governance on the firm value: several studies (Gompers et al., 2003; Drogbetz et al., 2004; Beiner et al., 2006) prove the existence of a positive relationship between corporate governance and firm value.

The importance of the governance systems adopted by banking firms emerges clearly after the financial crisis of the last two decades, in particular the Asian crisis of the '90s and the recent global financial crisis, which have pointed out with dramatic clarity that the banks can be an important factor in the amplification of systematic risk. The relevance of cor-

porate governance for banking systems has been clearly emphasized also by the Basel Committee, which in 1999 issued a document urging the adoption by banks of 'modern' corporate governance structures in order to ensure a sound and prudent management.

As implementing an effective corporate governance system is costly, it is important to verify if the market recognizes a premium to the firms which make higher investments to improve their systems. The research question addressed by this work is whether an effective corporate governance leads to higher market value. To answer this question it is essential to measure the quality of the corporate governance systems. Although many studies address this question in a generic manner, without distinguishing between financial and non-financial firms, the literature on the value of corporate governance in financial firms is scarce.

The peculiar characteristics and the importance of the banking sector justifies the need for a sector-specific study. In fact, the governance of banking firms may be different from that of unregulated, nonfinancial firms for several reasons. First, banks assume a crucial role in the real economy. Second, banks are heavily regulated and it is important to highlight that the objectives of regulators and those of banking firms may not coincide (Quint, 1992). Third, the number of parties with a stake in an institution's activity complicates the governance of financial institutions; in fact, in addition to investors, other subjects, as depositors and regulators, have a direct interest in bank performance. Fourth, banks are generally more opaque than nonfinancial firms (Furfine, 2001).

© Rossana Bubbico, Marco Giorgino, Barbara Monda, 2012.

The paper was presented at the VII Annual International Conference "International Competition in Banking: Theory and Practice" (May 24-25, 2012, Sumy, Ukraine).

The paper was refereed by the Conference Scientific Committee using double-blind review.

In this paper the Corporate Governance Index (Aboav et al., 2010) is used to measure the quality of the corporate governance of the Italian financial listed companies for the year 2010.

The paper is organized as follows. Section 1 presents literature review of the recent and most important studies about the relationship between corporate governance and value for financial and non-financial firms. Section 2 describes the target population, the sample and the model used in the analysis and the results. The last section concludes the work and discusses the implication of the findings.

## 1. Literature review

Corporate governance is a pivotal subject in business literature, and the debate about the improvement of governance systems is of great interest. Both the theoretical issues regarding corporate governance and the potential benefits achievable through its improvement have been already deeply discussed in literature. The notion of corporate governance can be dated back to 1932, when Berle and Means argued about the separation of corporate control and ownership. According to the Agency Theory, the separation between ownership and control requires an '*agency relationship*', that is a incomplete contract between a principal (the owners) and an agent (the manager).

Over time not only shareholders have been interested in value-maximization but also all stakeholders, according to OECD corporate governance definition (Cochran and Wartrick, 1988; Tricker, 1996).

In the late '90s there was a greater efforts to summarize many variables into an index that could be used to assess the quality of governance in the enterprises and identify any relationship between the the index value and the performance of the firm. The first to pursue this were Gompers, Ishii and Metrick, who in 2003 presented a governance index to analyze the relationship between corporate governance and value. Starting from the definition of a Governance Index based on information gathered from the Investor Responsibility Research Center (IRRC) they analyzed 1500 American listed firms from 1990 to 1999. The index, that combined 24 governance provisions, was built in such a way that an increase in the index led to a deterioration of investor's rights. They found that corporate governance was strongly correlated with stock returns during the 1990s: an investment strategy that purchased shares in the lowest-G firms ("Democracy" firms with strong shareholder rights), and sold shares in the highest-G firms ("Dictatorship" firms with weak shareholder rights), earned abnormal returns of 8.5 percent per year. Moreover they pointed out how an increase in the governance index

corresponds a significant decrease in firm's value (measured through Tobin's  $Q$ ) and that the average coefficient on governance index is negative and significant for both the net-profit-margin and sales-growth regressions, and is negative but not significant for the return-on-equity regressions.

Following Gompers, Ishii and Metrick's study, Drobetz et al. (2004) constructed a Governance Index in order to assess for the year 2001, the governance quality of the German listed firms of the fourth segments of the German Exchange: DAX 30 (blue-chip stocks), MDAX (mid-cap stocks), NEMAX (index of growth firms) and SMAX (small-cap stocks). In the first part of the study they replicated the methodology of Gompers et al. on equity returns on German data and arrived at the same conclusions. In the second part they focused their attention on governance and value and they found a positive and statistically significant relationship between governance and firm's value.

Following Drobetz et al.'s approach (2004), Cheung et al. (2007) studied the relationship between corporate governance and value for the Hong Kong stock exchange listed firms in 2002. Using Market-to-Book ratio as a proxy of value, they arrived at the same conclusion of Drobetz et al.

Beiner et al. (2006) presented a development of previous works in order to overcome the endogeneity problem that plagues virtually all empirical studies in Corporate Governance (e.g., Borsch-Supan and Koke, 2000). They applied a system of simultaneous equation to detect potential simultaneity bias between governance and value. The study analyzed 109 firms listed on Swiss Exchange in 2002, through a governance index, built on the same procedure of Drobetz et al. (2004), that was the results of the sum of 38 variables grouped in five categories: corporate governance commitment, shareholders' rights, transparency, management and supervisory board matters, and auditing. Their results supported the widespread hypothesis of a positive relationship between firm-specific corporate governance and Tobin's  $Q$ ; in addition this result was statistically significant.

Following the previous work, Aboav et al. (2010) through a multivariate cluster analysis showed the interaction between the quality of corporate governance, ownership structure and other firm specific characteristics during the crisis in order to quantify the governance quality in the Italian Stock Exchange. The econometric model and the Corporate Governance Index that they used is explained in greater details in the next section (Section 2) because it is the index used in the present work.

All these works have a commonality: they analyzed a heterogeneous sample that includes both financial

and non-financial firms. A focus on the corporate governance of financial institutions and on its relationship with the firm-value is much less developed: this is yet more true in Italy. Most of the studies have focused on the relationship between single parameters of governance (the most debated theme referring to board of directors composition) and value, measured often through Tobin's  $Q$ : studies as highly structured as Gompers et al.'s or Drogbetz et al.'s studies, but dedicated only to financial institutions, are not present in literature.

Belkhir (2004) analyzed the relationship between board size and performance in a sample of banks and financial institutions and found a positive relationship between performance and size of the board.

Adams and Mehran (2005) found a non-negative relationship between board size and Tobin's  $Q$ , which is contrary to the evidence for non-financial firms (Yermack, 1996; Hermalin and Weisbach, 2003).

In contrast with earlier works, Mayur and Saravanan (2006) and Bino and Tomar (2007), argued that the size of the board has no effect on the performance of banks.

Mayur and Saravanan analyzed the impact of corporate governance on the performance of Indian banks measured, alternately, by Tobin's  $Q$  and market-to-book ratio. The results of their work illustrate the absence of a dependency relationship between bank's performance and size of the board.

Bino and Tomar in their work examined the relationship between corporate governance and performance of a sample of fourteen Jordan listed banks on the Amman Stock Exchange measured either through return on assets and return on equity. The results showed that the ownership structure and composition of the board had a strong impact on the performance of banks, while the size of the board was neutral.

The first study that analyzes the relationship between corporate governance and market value in banking sector dates back to 2007. Love and Rachinsky (2007) examined the relationship between bank ownership and some information about governance in the Russian and Ukrainian banks and the relationship between governance and performance. The aspects of corporate governance were gathered through a questionnaire containing twenty-six questions grouped into five main categories: the commitment to corporate governance, shareholders' rights, controlling bodies, audit system and transparency and information. The five categories together make up the Corporate Governance Index. The author used a regression analysis to study the relationship between governance and performance, he used several indicators of performance as depen-

dent variables, including return on assets, return on equity, non-performing loans, asset growth, the Corporate Governance Index as independent variable, and a set of control variables. The results of the study are a significant relationship between governance and operating performance and a much weaker relationship between governance and value.

Grove et al. (2010) examined multiple factors of corporate governance and their relationship with the bank's performance – in terms of quality of revenues, ROA, and Tobin's  $Q$  – and with the quality of loans. The factors that the authors identified captured different elements of corporate governance relating to the ownership of the shares, to the structure of the board, and to the leverage on executive pay. The results show a worse performance when board members are older, less independent, and the bank has a high degree of leverage. Furthermore, the quality of loans was associated with the presence of board members who also held jobs in other councils, and with incentives to remuneration. The authors argued also that a weak corporate governance played an important role in guiding risky financial decisions.

The more recent works deal with the relationship between the corporate governance and the performance of banks during the financial crisis. Peni and Vahamaa (2010), using data on large publicly-traded U.S. banks, found that banks with stronger corporate governance mechanisms were associated with higher profitability in 2008 and that banks with a strong corporate governance record had greater equity returns after the collapse of markets. This is also an important signal of the benefits that a good corporate governance system can produce.

## 2. Methodology

In this section, the target population, the sample and the model used are presented, illustrating the variables that compose the CGI index, the areas they are grouped in and their relative weights used in the scoring model.

**2.1. Sampling and data collection.** In order to study the effect of corporate governance on the market value of financial institutions in Italy, the target population is composed of all Italian financial institutions listed on the Borsa Italiana MTA market. Foreign shares whose only listing is on Borsa Italiana (*exclusive listing*) are considered as domestic; instead, those foreign financial institutions that are listed both in their domestic market and on Borsa Italiana are not included.

The initial dataset used for the analysis is composed of the 17 firms making the *FTSE Italia All-Share Banks* Index and the 17 firms making *FTSE Italia All-Share Financial Services* Index, as of June 30, 2011, for a total of 34 financial institutions.

Table 1. Dataset

Company	Index
Apulia Pronto Prestito	FTSE Italia All-Share Financial Services
Azimut	FTSE Italia All-Share Financial Services
Banca Carige	FTSE Italia All-Share Banks
Banca Finnat	FTSE Italia All-Share Banks
Banca Generali	FTSE Italia All-Share Financial Services
Banca Ifis	FTSE Italia All-Share Financial Services
Banca Intermobiliare	FTSE Italia All-Share Financial Services
Banca Monte dei Paschi di Siena	FTSE Italia All-Share Banks
Banca Popolare di Sondrio	FTSE Italia All-Share Banks
Banca Popolare dell'Emilia Romagna	FTSE Italia All-Share Banks
Banca Popolare dell'Etruria e del Lazio	FTSE Italia All-Share Banks
Banca Popolare di Milano	FTSE Italia All-Share Banks
Banca Profilo	FTSE Italia All-Share Financial Services
Banco Desio e Brianza	FTSE Italia All-Share Banks
Banco Popolare	FTSE Italia All-Share Banks
Banco Sardegna Risparmio	FTSE Italia All-Share Banks
Cam Finanziaria	FTSE Italia All-Share Financial Services
Cape LIVE	FTSE Italia All-Share Financial Services
Conafi Prestito	FTSE Italia All-Share Financial Services
Credito Artigiano	FTSE Italia All-Share Banks
Credito Emiliano	FTSE Italia All-Share Banks
Credito Valtellinese	FTSE Italia All-Share Banks
Dea Capital	FTSE Italia All-Share Financial Services
Exor	FTSE Italia All-Share Financial Services
Intek	FTSE Italia All-Share Financial Services
Intesa Sanpaolo	FTSE Italia All-Share Banks
Investimenti & Sviluppo	FTSE Italia All-Share Financial Services
Management & Capitali	FTSE Italia All-Share Financial Services
Mediobanca	FTSE Italia All-Share Banks
Mediolanum	FTSE Italia All-Share Banks
Meridie	FTSE Italia All-Share Financial Services
Mutuonline	FTSE Italia All-Share Financial Services
SoPaF	FTSE Italia All-Share Financial Services
Tamburi	FTSE Italia All-Share Financial Services
Toscana Finanza	FTSE Italia All-Share Financial Services
Unicredit	FTSE Italia All-Share Banks
Unione di Banche Italiane	FTSE Italia All-Share Banks

The cleaned dataset, excluding two financial institutions for which market data is not available, is made of 32 firms. Firms are included in the FTSE Italia indexes according to free float and liquidity criteria. At the cut-off date of June, 30, 2011, the market cap of the constituents of the dataset represents the 98.33% of the total market cap of listed financial institutions, thus the sample is representative of the population.

The scoring model used for the assessment of the quality of the corporate governance system requires in input only the data which is publicly available. The documents used to collect data are the annual report, the corporate governance report and the charter; in limited number of cases, also internal dealing report and the ethical code are used.

**2.2. Measure.** In order to study the relationship between corporate governance and value, the following cross-sectional econometric model has been used:

$$Q_i = b_1 * CGI_i + b_2 * OC_i + b_3 * ROA_i + b_4 * SG_i + b_5 * \ln(CAP)_i + b_6 * \ln(AGE)_i + b_7 * ET_i + u_i,$$

$$u_i = a_i + \varepsilon_i.$$

The model variables are described hereinafter.

Index  $i = 1, \dots, 34$  identifies the listed financial companies included in the FTSE Italia All-Share Banks Index and in the FTSE Italia All-Share Financial Services Index.

$Q_i$  is Tobin's  $Q$  and it is the dependent variable of the model.

$CGI_i$  is the Corporate Governance Index. Previous studies (Gompers et al., 2003; Drobetz et al., 2004, Baghat et al., 2008) have empirically proved the existence of a positive relationship between Corporate Governance, measured through indexes, and value; so  $b_1 > 0$ .

$OC_i$  is the ownership concentration, its effect on the value is not clear; in fact, high concentration is expected to produce high monitoring exercised by the majority shareholders over the management (Sheilfer and Vishny, 1986), and therefore better performances, so  $b_2 > 0$ ; but the ownership concentration could have also a negative impact on value because controlling shareholders could use their power damaging minorities (takeovers chance is low), so  $b_2 < 0$ .

$ROA_i$  is return on assets. Because this parameter suggests how efficient management is at using its assets to generate earnings, a positive relationship between  $ROA$  and firm company could be expected, so  $b_3 > 0$ .

$SG_i$  is the annual sales growth rate; a high sales growth rate can affect positively company value because it means the company has been able to catch better investment opportunities (Lehman et al., 2000), so  $b_4 > 0$ ; but at the same time the company could incentivize managers to invest in projects that like better the increase of dimension but not the profitability, so  $b_4 < 0$ .

$\ln(CAP)_i$  is the natural logarithm of market capitalization. Large size allows to exploit economies of scale (Baumol, 1959), so,  $b_5 > 0$  but could also produce worse performance due to organization inefficiency (Leibenstein, 1966), so  $b_5 < 0$ .

$\ln(AGE)_i$  is the natural logarithm of years since IPO. This variable allows to take into account the experience of the company on capital markets. A negative coefficient could be expected because more recently listed firms are likely to be faster-growing, and perhaps more intangible asset-intensive (Black et al., 2003), so  $b_6 < 0$ .

$ET_i$  is the capital structure defined as equity over total assets. Between this parameter and value there could be a negative relationship because financing with the debt could incentivize managers to operate in an efficient manner (Grossman and Harte, 1982; Jensen, 1986), so  $b_7 < 0$ .

$u_i$  is the error term and is the sum of firm specific effect ( $a_i$ ) and white noise ( $\varepsilon_i$ ).

Three dummy variables are used to identify the segment (MIB, STAR, Mid Cap and Small Cap) which the company belongs.

**2.3. Variables.** Different sources have been used to collect the value of all the variables cited in the previous section.

Bloomberg database has been used as a source for Tobin's  $Q$  ( $Q$ ), which is evaluated as the ratio of the sum of equity market value and net debt (debts minus cash) over book value of the assets.

$CGI$  is the Corporate Governance Index and it includes 76 variables that have been selected on the basis of the Italian Corporate Governance Code of Best Practices released in 2006 by the Corporate Governance Committee sponsored by Italian Stock Exchange but also on the OCSE Corporate Governance principles and CalPERS Code of Corporate Governance (Aboav et al., 2010).

These variables can be grouped into three categories:

- ◆ "on/off" variables assuming value 0 or 1;
- ◆ percentage variables assuming value in percentage format;
- ◆ step distribution variables assuming different values depending on pre-set thresholds.

All the variables are grouped in 4 macro areas: *Board*, *Compensation*, *Shareholder and Stakeholder's Rights* and *Disclosure*.

The *Board* area analyzes the organizational structure of the board of directors and the observance of good management practices; for instance, the board dimension, the age of board members, the board structure in terms of presence of executive, non-executive and independent members, the presence of various committees and their characteristics.

The *Compensation* area analyzes the instruments implemented to align directors' interests with shareholders' interests; the type and quality of remunerations of executive, non executive directors and top management are investigated.

The *Shareholder and Stakeholders' Rights* area analyses the level of protection for shareholders and stakeholders; the parameters considered in this area include, but are not limited to, the level of separa-

tion between ownership and management, the functioning of annual general meeting, the risk governance, the attention devoted to environmental, social and governance (ESG) reports, the presence of a detailed organization chart, the publication of minutes of annual general meeting.

The *Disclosure* area analyzes the transparency level of companies to the economic and financial community and the quality of the information disclosed.

Other variables, not related to corporate governance, are used in the model in order to account for other effects on firm value. Following Beiner et al. (2006), return on assets (ROA), which measures profitability of firm's ordinary business, is included because of its influence on firm value. As a source for ROA values Datastream is used; it should be noted that Datastream uses a specific formula to calculate the ROA of financial institutions (see Appendix).

Following Lehmann et al. (2000), Ownership Concentration (OC) is included; the measure of concentration used is the Herfindahl Index, which is defined as the sum of the squares of the first four equity stakes; data used to calculate this index was collected using the Italian Financial Market Authority (Consob) website. In line with Lehmann et al. (2000), a normalization is conducted in order to obtain an ownership concentration ranging between minus infinite and plus infinite. Following again Drobetz et al. (2004) and Lehmann et al. (2000), financial reports of the companies are used as sources for the data required to calculate the capital structure variable (ET), which is defined as the ratio of equity value over total assets. Following Drobetz et al. (2004), Klein et al. (2005), Beiner et al. (2006), two additional variables are added: one expressing growth, measured as annual sales growth rate (SG), and one expressing firm dimension, measured as the natural logarithm of market capitalization ( $\ln(CAP)$ ); data sources used are Datastream and Bloomberg, respectively. Finally, following Drobetz et al. (2004), also the natural logarithm of years since the IPO  $\ln(AGE)$  is considered in order to take the experience since the IPO in capital markets is taken into account.

### 3. Results

Table 2 summarizes the cross-sectional data regression estimates for equation:

$$Q_i = b_1 * CGI_i + b_2 * OC_i + b_3 * ROA_i + b_4 * SG_i + b_5 * \ln(CAP)_i + b_6 * \ln(AGE)_i + b_7 * ET_i + u_i$$

The table shows some important evidence:

- ◆ there is a positive and statistically significant correlation (*coefficient* = 0.0164 and *p-value* = 0.00463) between Tobin's  $Q$  and corporate go-

vernance; this confirms that corporate governance impacts positively on the market-value of financial institutions;

- ◆ there is a positive and statistically significant correlation (*coefficient* = 0.0859 and *p-value* < 0.00001) between return on assets and Tobin's *Q*; this confirms the hypothesis ( $b_3 > 0$ );
- ◆ there is a positive and statistically significant correlation (*coefficient* = 0.0696 and *p-value* = 0.04094) between Tobin's *Q* and ownership concentration, suggesting that high concentration might allow the majority shareholders to exercise a better monitoring over the management ( $b_2 > 0$ ), like in Sheilfer and Vishny (1986);
- ◆ there is a negative and statistically significant correlation (*coefficient* = -0.0032, *p-value* = 0.07618) between Tobin's *Q* and equity over total assets; this confirms the hypothesis that debt financing could incentivize managers to operate in a more efficient manner ( $b_7 < 0$ );
- ◆ there is a negative and statistically significant correlation (*coefficient* = -0.2802, *p-value* = 0.00962) between Tobin's *Q* and the natural logarithm of market capitalization; this seems to confirm the idea that large size produces worse performance due to organization inefficiency ( $b_5 < 0$ ) like in Leibenstein (1966);
- ◆ the relationship between Tobin's *Q* and sales growth rate and that between Tobin's *Q* and the natural logarithm of years since IPO are negative but not statistically significant. The first finds justification in the common belief that high sales growth rate incentivizes managers to invest in projects pursuing the increase of dimension more than profitability ( $b_4 < 0$ ). The second relationship is in accordance with the belief that more recently listed firms are likely to be faster-growing, and perhaps more intangible asset-intensive ( $b_6 < 0$ ), like in Black et al. (2003).

## References

1. Aboav M., Colarossi F., Giorgino M., Viviani D. (2010). 'Corporate governance and financial distress during the subprime crisis: empirical evidence from Italy', Corporate Governance & the Global Financial Crisis Conference, The Wharton School.
2. Adams R.B., Mehran H. (2005). 'Corporate Performance, Board Structure and its Determinants in the Banking Industry', EFA 2005 Moscow Meetings.
3. Basel Committee (1999). 'Enhancing corporate governance for banking organisations'.
4. Baumol W.J. (1959). 'Business Behavior, Value and Growth', Macmillan New York.
5. Beiner S., Drobetz W., Schmid M.M. and Zimmermann H. (2006). 'An Integrated Framework of Corporate Governance and Firm Valuation', *European Financial Management*, 12 (2), pp. 249-283.
6. Belkhir M. (2004). 'Board of Directors size and Performance in Banking', Working Paper, Université d'Orléans.
7. Berle A. and Means G. (1932). 'The Modern Corporation and Private Property', Macmillan, New York.
8. Bhagat S., Black B. (2002). 'The non correlation between board independence and long term firm performance', *Journal of Corporation Law*, 27, pp. 231-274.
9. Bhagat S., Bolton B. (2008). 'Corporate governance and firm performance', *Journal of Corporate Finance*, 14 (3), pp. 257-273.
10. Bino A., Tomar S. (2007). 'Corporate Governance and Bank performance: evidence from Jordanian Banking Industry', Conference on Regulation and Competition Policy for Development.

## Conclusion

This work investigates how corporate governance impacts on the value of listed financial companies. To this purpose, Tobin's *Q* is used as a proxy for value, while the quality of the corporate governance system is assessed through the Corporate Governance Index (CGI). The cross-sectional regression for the year 2010 highlights that there is a positive and statistically significant correlation between governance and value. This result is very important: an increase by 1 point in the Corporate Governance Index produces an increase in the value equal to 0.016. This effect cannot be neglected and is more ample than what it may seem at the first sight. To appreciate the impact of the governance on firm value, it has to be considered also that the CGI difference between the *best* and the *worst* firm in terms of corporate governance is 47.09, therefore, keeping all else constant, the Tobin's *Q* value for the best company is 77.33% higher than the Tobin's *Q* value of the worst company, and this difference is explained solely by the better corporate governance system.

This finding supports the hypothesis that governance creates value for companies and investments to implement effective governance systems give net positive benefit and should therefore be pursued. Hence financial institutions should be encouraged to improve their corporate governance systems.

The positive relationship between governance and value confirms also the results of previous works and attests the effectiveness of both the model that was used and of the Corporate Governance Index. The CGI could be a useful tool to pursue many objectives such as the improvement of disclosure of financial markets, the reduction of the cost of funding, better attractiveness of the firms in the capital markets. All these aspects translate into benefits for investors who become able to make their investments with greater awareness and reduced risk.

11. Borsch-Supan and Koke, (2000). 'An Applied Econometricians View of Empirical Corporate Governance Studies', *German Economic Review*, 3 (3), pp. 295-326.
12. Black B.S., Jang H. and Kim W. (2003). 'Does Corporate Governance Affect Firm Value? Evidence from Korea', *The Journal of Law, Economics & Organization*, 22, p. 2.
13. Brickley J., James C. (1987). 'The takeover market, corporate board composition, and ownership structure: the case of banking', *Journal of Law Economics*, 30, pp. 161-180.
14. Brogi M. (2008). 'Regulation, Corporate and Risk Management in Banks and Insurance Companies', 18th AFIR Colloquium: Financial Risk in a Changing World.
15. Caprio G.J., Laeven L., Levine R. (2007). 'Governance and Banks', *Journal of Financial Intermediation*, 16, pp. 584-617.
16. Cheung Y., Connelly J.T., Limpaphayom P. and Zhou L. (2007). 'Do Investors Really Value Corporate Governance? Evidence from the Hong Kong Market', *Journal of International Financial Management Accounting*, 18 (2), pp. 86-122.
17. Cochran, P.L. and Wartrick, S.L. (1988). 'Corporate Governance – A Review of the Literature', Financial Executives Research Foundation, Morristown.
18. De Andres P., Vallelado E. (2008). 'Corporate Governance in banking: the role of Board of Directors', *Journal of Banking & Finance*, 32, pp. 2570-2580.
19. Demsetz H. (1983). 'The Structure of Ownership and the Theory of the Firm', *Journal of Law and Economics*, 26 (2), pp. 375-390.
20. Di Donato F., Tiscini R. (2009). 'Cross ownership and interlocking directorates between banks and listed firms: an empirical analysis of the effects on debt leverage and cost of debt in the Italian case', *Corporate Ownership & Control*, 6, pp. 473-481.
21. Drobetz W., Schillhofer A. and Zimmermann H. (2004). 'Corporate Governance and Expected Stock Returns: Evidence from Germany', *European Financial Management*, 10 (2), pp. 267-293.
22. Fama E. (1980). 'Agency problems and the theory of the firm', *Journal of Political Economy*, 88 (2), pp. 288-307.
23. Furfine C.H. (2001). 'Banks as Monitor of other Banks: evidence from the overnight Federal Funds Market', *Chicago Journals*, 74 (1), pp. 33-57.
24. Gompers, P., Ishii, J. and Metrick, A. (2003). 'Corporate governance and equity prices', *Quarterly Journal of Economics*, 118 (1), pp. 107-155.
25. Grossman S. and Hart O. (1982). 'Corporate Financial Structure and Managerial Incentives', *The Economics of Information and Uncertainty*, pp. 123-155.
26. Grove H., Palvia A. (2010). 'Corporate Governance and Performance: Evidence from U.S. Commercial Banks', Midwest Finance Association Meeting, Las Vegas.
27. Hermalin B.E. and Weisbach M.S. (2003). 'Boards of Directors as an endogenously determined institution: a survey of the economic literature', *Economic Policy Review*, 9, pp. 7-26.
28. Hill C., Jones T. (1992). 'Stakeholder-agency theory', *Journal of Management Studies*, 29 (2), pp. 134-154.
29. Himmelberg P.C., Hubbard R.G., Palia D. (1999). 'Understanding the Determinants of Managerial Ownership and the Link between Ownership and Performance', *Journal of Financial Economics*, 53, pp. 353-384.
30. Jensen M., Meckling W. (1976). 'Theory of the Firm: Managerial Behavior, Agency Cost and Ownership Structure', *Journal of Financial Economics*, 3 (4), pp. 305-360.
31. Jensen M. (1986). 'Agency Costs of Free Cash Flow, Corporate Finance and Takeovers', *American Economic Review*, 76, pp. 323-329.
32. Klein P., Shapiro D. and Young J. (2005). 'Corporate Governance, Family Ownership and Firm Value: the Canadian Evidence', *Corporate Governance*, 13 (6), pp. 769-784.
33. La Porta R., Lopez-de-Silanes F., Shleifer A. (2002). 'Government ownership of Banks', *Journal of Finance*, 57 (1), pp. 265-301.
34. Lehmann E., Weigand J. (2000). 'Does the Governed Corporation Perform Better? Governance Structures and Corporate Performance in Germany', *European Finance Review*, 4, pp. 157-195.
35. Leibenstein H. (1966). 'Allocative Efficiency vs. 'X-Efficiency'', *American Economic Review*, 56 (3), pp. 392-415.
36. Love I. and Rachinsky A. (2007). 'Corporate Governance, Ownership and Bank Performance in Emerging Markets: Evidence from Russia and Ukraine', World Bank, Working Paper.
37. Macey J.R., O'Hara M. (2003). 'The Corporate Governance of Banks', FRBNY Economic Policy Review.
38. Mayur M., Saravanan P. (2006). 'Does the Board Size Really Matter? – An empirical Investigation', *Journal of Corporate Finance*, Working Paper.
39. Morgan D. (2002). 'Rating banks: Risk and uncertainty in a opaque industry', *American Economic Review*, 92, pp. 874-888.
40. Peni E., Vahamaa S. (2010). 'Did Good Corporate Governance Improve Bank Performance During the Financial Crisis?', *Journal of Financial Services Research*, 41, pp. 19-35.
41. Polo A. (2007). 'Corporate Governance of Banks: the Current State of the Debate', Munich Personal RePEc Archive, 2325.
42. Prowse S. (1997). 'Corporate Control in Commercial Banks', *Journal of Financial Research*, 20, pp. 509-527.
43. Quint M. (1992). 'Bank Directors face rising risk', New York Times, March 26.



44. Selvam M. (2006). 'Corporate Governance and Performance – Indian Banking System', International Conference on Business and Information, Hong Kong Baptist University.
45. Shleifer A., Vishny R. W. (1986). 'Large Shareholders and Corporate Control', *Journal of Political Economy*, 94 (3), pp. 461-488.
46. Tricker R. (1996). 'Pocket Director', Profile Book, London.
47. Yermack, D. (1996). 'Higher market valuation of companies with small board of directors', *Journal of Financial Economics*, 40, pp. 185-211.

## Appendix

The formulas calculate the ROA of financial institutions

$$ROA_{Banks} = \frac{(Net\ Income\ Before\ Preferred\ Dividends) + (Interest\ Expense\ on\ Debt - Interests\ Capitalized) * (1 - Tax\ rate)}{(Last\ Year's\ Total\ Assets - Last\ Year's\ Customer\ Liabilities\ on\ Acceptances)} * 100, (1A)$$

$$ROA_{Other\ Fin.Com} = \frac{(Net\ Income\ Before\ Preferred\ Dividends) + (Interest\ Expense\ on\ Debt - Interests\ Capitalized) * (1 - Tax\ rate)}{(Last\ Year's\ Total\ Assets - Last\ Year's\ Custody\ Securities)} * 100, (2A)$$

Table 2A. Cross-sectional regression – coefficient values

Model 7: OLS, using observations 1-34 (n = 27) Missing or incomplete observations dropped: 7 Dependent variable: Tobin's Q					
	Coefficient	Std. error	t-ratio	p-value	
const	2.37839	0.723198	3.2887	0.00463	***
CGI	0.0164218	0.00467669	3.5114	0.00289	***
SG	-0.000298515	0.000881154	-0.3388	0.73918	
ROA	0.0858923	0.00493446	17.4066	<0.00001	***
Ln (AGE)	-0.157818	0.142446	-1.1079	0.28428	
Ln (CAPMKT)	-0.28027	0.0953499	-2.9394	0.00962	***
ET	-0.0031949	0.00168517	-1.8959	0.07618	*
D_Mib	0.504509	0.254408	1.9831	0.06480	*
D_Star	0.1531	0.22134	0.6917	0.49904	
D_Mid	-0.0635759	0.137878	-0.4611	0.65093	
OC	0.0695786	0.0312925	2.2235	0.04094	**

Table 2B. Cross-sectional regression – statistics

Mean dependent var	1.103438	S.D. dependent var	0.704828
Sum squared resid	0.426944	S.E. of regression	0.163352
R-squared	0.966945	Adjusted R-squared	0.946286
F(10, 16)	46.80487	P-value(F)	6.26e-10
Log-likelihood	17.67234	Akaike criterion	-13.34469
Schwarz criterion	0.909519	Hannan-Quinn	-9.106164