

Does Corporate Governance Influences Corporate Financial Performance? Empirical Evidences for the Companies Listed on US Markets

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Abstract

The purpose of the present paper is that of researching the relationship between corporate governance and financial performance, on a sample of 51 companies, mainly from the technology area, listed at NASDAQ and component of the Dow Jones index, during the period 2000-2013. The financial performance has been proxied through return on assets (ROA), return on equity (ROE), return on the invested capital (ROIC), and Tobin's Q ratio (Q). As variables for the corporate governance there have been considered: the characteristics of the board of directors (independence, size, Advisory Committees, and gender diversity); the shareholder structure (the shares of institutional investors and those of CEO); the characteristics of CEO (tenure, age, and duality); the remuneration of CEO (base salary, bonuses, packages with stocks). The estimation techniques used in the empirical analysis have been multivariate regression models based on the method of generalized least squares (GLS), the correction of standard errors for heteroskedasticity using the method of White, and the fixed-effects (FE). The results obtained have highlighted a mixed influence of the corporate governance variables on financial performance (board size, share of women on the boards, the independence of the board), the relationships being influenced also by the perception of the stakeholders. We concluded a positive relationship between ROE and the remuneration of CEO in bonuses, as well as a negative relationship between Tobin's Q ratio and the remuneration of CEO through stocks at the company they manage. The paper highlights, as novelty, elements from behavioral finance in the economic interpretation of the results, following their explanation also from the human nature perspective.

Keywords: corporate governance, financial performance, CEO characteristics, board of directors' characteristics, panel data models

1. Introduction

Bernstein (1996) has managed to comprise in one volume the entire history of risk, seen as in times gone by and as in the modern age. This has shown that in the contemporary world in which the globalization, the Internet, and the technology have monopolized the entire world, the future has become for people more than a 'fantasy of the gods'. The financial markets and especially the capital markets discover better this idea by weighing, assessing, foreseeing, and anticipation, more or less exactly of the future, with the hope for a suddenly win. As in the biblical myths, the human nature and greed, under the auspices of hedging have led to the creation of the derivative financial instruments. Resulted initially from the wish to protect investors, the years 2000 lead to the excessive use of them, determined by a blinding greed impassive before the inevitable. Just like the heroes of the Greeks, the great actors from Wall Street have dared to challenge the gods, more precisely, the gods of the capital markets. If the mythological ones were merciless in anger striking sometimes an entire island, the risk started in 2007 by the subprime crisis, helped by the interdependency of markets, and has been ruthless with the entire world. The globalization has made possible not only for the United States to be hit, but also there have been hit, by the destructive wave of the explosion of property loans, Europe and Asia. Thus, the year 2007 joined the Great Crash from 1929 in the black list of the financial world. Countless companies have disappeared, being geared to this unstoppable maelstrom and the concept 'too big to fail' largely announced by the stock exchange has crashed easily. The most affected ones have been the simple people who have lost their house and jobs. As such, Kotler and Caslione (2009) emphasized that managers must try to be more flexible, robust, and resilient if

they want to survive in the new turbulent environment. Also, Turner (2009) points out that ‘today a bank could not in a crisis make a call on shareholders without aggravating the crisis’.

One of the main causes that have generated this financial crisis has been the inefficiency of corporate governance or the lack of attention on the rules imposed by it. The purpose followed in the present paper is that of analyzing the impact of corporate governance on the financial performance recorded by the biggest companies listed on the capital market from the United States of America, companies which are part mainly of Dow Jones and NASDAQ (the second largest stock market from the USA as level of market capitalization). We have chosen this market because it has a clear history of the events before and after the crisis, being one of the most translucent and regulated capital markets from the world. Thus, it can be followed in detail the influence of corporate governance and way it has functioned or not on the financial performance under the pressure of the financial crisis. Also, the analyzed companies are in the top of the most efficient American companies, whilst the importance of this paper consists in the attempt to identify the existence of a correlation between corporate governance and the financial strength of them. The novelty brought by the present paper is that it highlights the fact that the largest companies from the American capital market due their financial performance to management, to the business strategy chosen, but also to a certain extent to corporate governance. It is interesting to follow how are implemented the rules imposed by the Corporate Governance Codes and of what impact they have on the financial performance. The present work is focused on the principles of corporate governance on the financial performance of the companies investigated. In this way are examined companies from different domains, but similar as size, financial strength, history, and component of the same stock index.

Another aspect followed is the ‘dispersed ownership system’ characteristic USA and how it acts on corporate governance. This system is formed by strong securities markets, rigorous disclosure standards, and high market transparency, being a propitious environment for a high level of corporate governance. Other factors that differentiate the corporate governance from USA by other states are liberal economic paradigm, funding based on well-developed capital markets with high liquidity, as well as corporate philosophy in which managers aims to maximize shareholder wealth (Herrigel, 2008). Based on the report of The Brookings Institution (2015), advanced industries reveal a substantial economic anchor for the economy of USA and have led the post-recession employment recovery. Nevertheless, the competitiveness appears to be eroding, but The United States has the most dynamic cutting-edge industries worldwide, behind only energy-intensive Norway. In fact, innovation remains the only lasting source of advantage for firms in the advanced industry sector. The bond between corporate governance and capital markets is also important in the context of bid-ask spreads registered in USA markets. Heflin et al. (2005) empirically investigate the relationship between information disclosure quality and the bid-ask spreads and provide evidence that bid-ask spreads decrease as information quality increases. Even more, some evidence show that companies with a good corporate governance structures tend to have smaller bid-ask spreads. Oppenheimer (1984) examines the performance of Ben Graham’s portfolios and emphasizes that one of Graham’s maxims on investing was ‘defend your shareholder’s rights’. Moreover, Oppenheimer (1984) considers that Graham is one of the first proponents of corporate governance. Thus, studying the correlation between financial performance and corporate governance it is a focal point for investors wishing to purchase shares in companies empirically analyzed within current manuscript. Damodaran (2012) finds it difficult to quantify the quality of a company’s corporate governance in a valuation model because is no input to take in consideration. On the other hand, Damodaran (2012) believes that corporate governance can be incorporated in assessment of a company’s performance if it is included in the balance between value of the company run by the existing managers and value of the company run by an optimal management. At a high level of governance the stock should trade close to its intrinsic value in an efficient market, so in the context of capital markets, empirical studies of these links are of great interest for both investors and shareholders and not at least managers.

The rest of the paper is organized as follows. The second section discloses theoretical aspects of corporate governance in the related literature. The third section presents the hypotheses designed for the empirical research. Section four reveals the description of the selected sample and the employed variables, as well as the empirical methods, whereas empirical findings are shown in section five. The empirical results are compared with previous studies in section six. The last section concludes the paper.

2. Prior Research

USA, together with Great Britain, has the most numerous and ample Codes of Governance from the entire world in number of 16, respectively 44. Although both states have capital markets with history, only in the year 1992 they have introduced the Corporate Governance Codes in the UK and in 1997 in the USA. And yet, the financial crisis started exactly from these states. A cause could be the failure of corporate governance. Thus, it is a reason

in addition the analysis of the performance of top companies and their reaction to the devastating 'wave' started by the crisis. The subject has been analyzed by many specialists and the paper tries to identify new effects of corporate governance on the financial performance. In an ideal world, correct, rational, and honest, the corporate governance would not justify its existence, but the history of the capital markets includes numerous examples in which it is more than necessary. The accounting frauds, overestimated compensations, the abuses on the minority shareholders, and many other financial violations obliged later the creation of some Codes of Corporate Governance. Monks and Minow (2004) consider that only in 2002 the corporate governance has proved its importance after there had taken place 12 of the biggest bankruptcies from the history of USA, these being followed by losses of billions of dollars from the money of the shareholders, the increase in the number of unemployed persons, and many directors being arrested. Among the companies targeted we found Enron, Tyco, Adelphis, and WorldCom. Monks and Minow (2004) mention that after these events the corporate governance has been in the spotlight. Everybody wished it from NYSE and NASDAQ which imposed it to companies in order to list their shares, to the rating agencies which have not foreseen the disaster that was about to take place. Monks and Minow (2011) define corporate governance as a mean of reducing the agency cost and implicitly of the asymmetry of information. They consider it a way of preventing the agency risk which can affect the shareholders through the manager's decisions, but at the same time, the community. Moreover, corporate governance was defined as a method of control and inspection in order to maintain a favorable frame for creating value by companies. We consider that corporate governance is not a Cerberus at the gates of the company, but it is rather a guardian angel which guides the company to the right path-the correct way.

The corporate governance does not follow the asymmetry of information that appears in the relationship shareholder-manager, but it has the role of guardian of investors, suppliers of finances for companies, so that they will be remunerated correctly for the investment realized (Shleifer & Vishny, 1997). Lee et al. (2013) argues empirically the fact that through a well applied corporate governance it is reduced the information asymmetry between shareholders and managers. The agency theory in the context of corporate governance is mentioned also by Lambert (2001). Athanasoglou et al. (2008) find no evidence in support of the traditional structure-conduct-performance (SCP) hypothesis. Chang et al. (2008) prove that the mechanisms of corporate governance can mitigate agency problems between managers and shareholders, and thus can diminish agency cost. Haldane (2011b) describes the concept 'too big to fail' which has worked in the banks before the crisis of 2007, mentioning that those big companies with renown, considered to be part of the category mentioned, have seen corporate governance and the measures of risk control as being ridiculous. Haldane (2011b) also refers to another factor precursory to the crisis and that is 'myopia loop' which acted in the banking system of the USA. It manifests through the fact that the managers of those banks had taken decisions which had had apparently positive effects on short term, but which on long term affected the financial performance. Thus, managers were stimulated to increase this indicator 'adjusting' the financial accounting statements which lead to the appearance of the agency problem. The situation has been amplified also by the fact that the respective managers were remunerated according to ROE, fact that amplified taking some decisions more and more risky and with negative effects on long term. According to DeYoung et al. (2013), the CEOs of the banks have been stimulated through remunerations based on the yield came from the derivative instruments. Fahlenbrach and Stulz (2011) give as example of this type of managers that have risked everything on the leverage effect of ROE which had the role of overestimating the wins and implicitly of own remunerations in the period of the economic boom. Among them we find Dick Fuld (Lehman Brothers), James Cayne (Bear Stearns), Stan O'Neal (Merrill Lynch), and John Mack (Morgan Stanley) (Fahlenbrach & Stulz, 2011). In the Corporate Governance Code of USA published in 2012 it is provided that directors will be remunerated according to the performance of the company, but it should not be an excessive remuneration that will go beyond the limits of rational and also to be efficient from the fiscal point of view. In order to prevent such situations, Walker (2009) appeals to corporate governance and suggests an expertise of the board of companies by using performance grounds, but also a mandate from the Risk and Audit Committees. Walker (2009) says that the number of non-executive directors from the companies guilty for the crisis has been correct. The conclusion is that under the mirage of the exaggerated wins based on the leverage effect, the members of the board of the respective companies have simply put aside and ignored the corporate governance and the risks blinded by greed.

Linck et al. (2008) stated that board structure across corporation is consistent with the costs and benefits of the board's monitoring and advising roles. Hortsmeier (2011) highlighted that large Nominating Committees are associated with lower levels of outside director turnover. In another paper, Haldane (2011a) suggests as means of measuring a company by passing from ROE to ROA. The return on assets does not present the disadvantage of being overestimated by the leverage effect and does not limits to owner's equity. ROA includes in this way an overall image of the balance sheet and of the financial performance and is adjusted better at risk. The report of

Investor Responsibility Research Center Institute (IRRCi) realized in 2014 for companies part of S&P1500 shows that 63% from the remuneration of executive directors of these companies is based on the size of the company, the industry it is part of, and other such elements. From the directors analyzed, over 90% are remunerated from the accounting results obtained in less than three years. Thus, it is not surprised the impact of their decisions for the investments realized or the decisions concerning human capital for research and development which requires a longer time to see if they were either or not profitable. Only 12% from the value of is based on performance indicators as turnover, total shareholder return, net profit, and return on invested capital and are correlated with the expectations of increasing the value on long term. The new Code of Corporate Governance of United States of America from 2013 suggests as the remuneration of managers to be realized according to more performance indicators which shall reflect the company strategy on long term. To this principles is added the idea that the remuneration must be done if it creates value in the company at a minimum cost so that to be reflected by the concept of 'downside risk'. The Code provides that the performance indicator chosen in order to index the remunerations of the directors to be hard to manipulate as to avoid the situation prior to the crisis. At the same time it includes the idea that the directors must be rewarded also in shares of the company they manage as to align its own interests with the interests of the shareholders they represent and implicitly with the company interests. The value of the shares package they have the right to own should not exceed the maximum of six times the salary in the case of CEO. Kashyap et al. (2008) suggest a new vision on corporate governance. They consider that the financing and risk management decisions are resolutions of the board and of shareholders which decide according to the cost-benefit analysis and are not decisions taken by the financial department. In this way, through the resolutions taken by the directors of the companies guilty for the crisis of 2007 it can be considered that corporate governance has affected the financial performance of the respective companies.

Although it is a relative recently appearance in the economic and financial world through its implications, the corporate governance has managed to generate the interest of many scientists and personalities so that the related literature includes many works on this theme. In the present paper we have concentrated on the relationship between corporate governance and financial performance. Among the authors who had studied this problem we can enumerate Shleifer and Vishny (1997), La Porta et al. (1999), Drobetz et al. (2003). For the part of governance these include mainly characteristics of the board. Adams and Ferreira (2007) consider that the board has two attributions of monitoring and guidance of the direction the company is heading to. Boone et al. (2007) analyze this connection starting from two hypotheses regarding the board of a company. The first hypothesis starts from the idea that the board is inefficient and must be regulated in order to increase the financial performance of a company. The second hypothesis tested considers the board as part in the company, but which must be structured according to the characteristics of the company and of the business environment in which they activate for a higher performance. Moreover, Boone et al. (2007) conclude that for the companies analyzed the board has been adjusted in order to respond efficiently to the characteristics of the companies they had led not through a mechanic manner according to the Code, but dynamically through management strategies which took into account also the costs of monitoring managers. In this is way, their companies have become more productive and implicitly more competitive through the reduction of agency costs (Jensen & Meckling, 1976). Jensen (1993) argues that a proactive board has an important role and it actions when the company faces financial problems. Thus, the company has corporate governance which leads to an improvement of the financial performance.

Another direction from literature is that concerning the size of the board. Lipton and Lorsch (1992) sustain that a large size of the board presents more disadvantages than advantages, fact that affects the financial performance of the company. They consider that a number of 8-9 members are enough for a company to be efficient. Klein (1998) considers that a large board indicates the presence of a well-defined organizational structure. The idea of a negative correlation between the size of the board and the company performance is sustained also by Haniffa and Hudaib (2006), Hermalin and Weisbach (2003), and Yermack (1996). The positive correlation between the size of the board and financial performance is found in the studies of Adams and Mehran (2005), Dalton and Dalton (2005). Linck et al. (2008) show that a decrease of the size of the board for larger companies and an increase of the non-executive members occurred. This aspect can be put on the account of a better compliance with the provisions of the Corporate Governance Code.

Another aspect as regards corporate governance, intensively found in the related literature is the role of non-executive members (independent directors). Appreciated by Fama and Jensen (1983) on the ground that the non-executive members bring a new expertise which improves the performance of the company, this role is contradicted in recent works (Ozkan, 2006). Important studies concerning the independent board have been

performed also by Weisbach (1988). Al-Najjar (2014) says that prior literature analyzed the relationship between corporate governance and financial performance starting from three indicators: ROA (returns on assets), ROE (return on equity), and indicators of market analysis as market-to-book ratio. The author studies the performance of tourism companies depending on the size of the board and its independence, but also at the same time with the economic situation of the industry in which activate the respective companies. The results of the study show that the role of independent non-executive members is statistically significant on profitability indicators ROA, ROE, and on the market performance indicators. Lasfer (2006) provides support for a strong negative relationship between the level of managerial ownership and corporate governance factors, such as dividing the roles of the CEO and the Chairman, the proportion of non-executive directors, and the appointment of a non-executive director as a Chairman.

Relevant to the size of the board, Al-Najjar (2014) has gathered results somewhat contradictory. Hillier and McColgan (2006) find that boards transform more readily in reply to changes in managerial control, equity issuance, and corporate performance, than changes in the firm-specific operating environment of corporations. Sierra et al. (2006) consider that a large board influences positively the financial performance of the company, but a smaller board has a better impact on the market indicators. The results are a proof that the corporate governance influences positively the financial performance of a company if it is sustained by the macroeconomic conditions of the area of activity. De Andres and Vallelado (2008) investigate the influence of the board on the performance of the companies from the banking system out of the USA and other countries, and discover also that a large board is reflected also in the growth of the financial performance (ROA, ROE, Tobin's Q) if it takes into account the structure of the shareholders. Chen (2010) provides evidence that both the effects of change in the state of economy and tourism growth are significant explanatory factors of occupancy rate, providing important information for government tourism policymakers and tourist hotel owners and managers.

Another interesting subject found in the literature that explores corporate governance is the women's share in management positions and in the structure of the board. Numerous studies have been performed on this topic; among them we can mention Kent and Moss (1994) or Ruderman et al. (2002). According to a report realized by GMI rankings (2012) for companies from the United States of America, part of S&P1500, only 12.6% from the members of the board were women. Dwyer et al. (2003) consider that the board diversity according to gender leads to an improvement of the financial performance especially at growing companies. Fischer et al. (1993), as well as Robb and Watson (2012), although they belong to different thinking directions (liberalism/feminist socialism announced by Black, in 1989), still sustain the idea that companies lead by women have nothing less from the point of view of financial performance, than those managed by men. However, Shrader et al. (1997) do not conclude any statistically significant relationship between the percentage of women in the upper echelons of management and firm performance. Adams and Ferreira (2009) consider that women are more likely to join monitoring committees of companies. Jianakoplos and Bernasek (1998) sustain the fact that women are more risk adverse than men. The idea is taken also by Khan and Vieito (2013) who have shown that companies with women CEO have taken less risky decisions and have had higher financial performance taking as proxy in model ROA. Carter et al. (2003) find a positive relationship between women's share on the board and the performance indicators ROA and ROE. Brett and Stroh (1999) consider that women in management positions have a better motivation and inspiration role for subordinates. There is considered that women have a different vision and can bring new ideas that will lead to a growth of the company value. Huse and Solberg (2006) notice the fact that women are less listened in taking decisions and that most of the times are accepted women on the board only as image and best practices exercise. The authors name these cases as 'tokenism' practices. Konrad and Kramer (2006) sustain that this practices can be eliminated if there are more than three women members on the board.

3. Hypotheses Development

The main purpose of the present paper is that of researching the relationship between corporate governance and financial performance for companies from the technologic sector listed on NASDAQ. Starting from the models found in the related literature, we have established the following hypotheses for the empirical research:

- **Hypothesis 1 (H₁):** The existence of a negative correlation between the number of non-executive members and the financial performance of the company (Erkens et al., 2012; Guest, 2008; Metrick & Ishii, 2002; Yermack, 1996; Hermalin & Weisbach, 1991);
- **Hypothesis 2 (H₂):** The existence of a positive correlation between the size of the board, measured through the number of directors, and the financial performance (Al-Najjar, 2014; Dalton & Dalton, 2005; Adams & Mehran, 2005);

- **Hypothesis 3 (H₃):** The existence of a positive correlation between the share of women on the board and the financial performance (Vintilă et al., 2014; Fidanoski et al., 2014);
- **Hypothesis 4 (H₄):** The existence of a positive correlation between the age of CEO and the financial performance (Bhagat & Bolton, 2008);
- **Hypothesis 5 (H₅):** The existence of a negative correlation between the tenure of the CEO and the financial performance (Berger et al., 2012; Horstmeyer, 2011; Dikolli et al., 2011; Boond et al., 2007);
- **Hypothesis 6 (H₆):** The existence of a positive correlation between the percentage of shares possessed by the CEO and the financial performance (Bhagat & Bolton, 2008);
- **Hypothesis 7 (H₇):** The existence of a positive correlation between the share of institutional investors on the board and the financial performance (Myners, 2001);
- **Hypothesis 8 (H₈):** The existence of a negative correlation between the duality of CEO and the financial performance (Erkens et al., 2012);
- **Hypothesis 9 (H₉):** The existence of a positive correlation between the CEO remuneration (salary, bonus, stock packages) and the financial performance (Bhat et al., 2006; Perry, 2000);
- **Hypothesis 10 (H₁₀):** The existence of a positive correlation between the presence of Risk Committee, among the Audit, Nomination, Remuneration Committees and the financial performance.

4. Data and Research Design

4.1 Sample Selection and Variables Description

As we have mentioned, our aim is to empirically investigate the influence factors from the area of corporate governance on the company financial performance. The purpose of the empirical analysis is that to notice if the firms listed on NASDAQ and part of Dow Jones, due their financial position exclusively to the activity performed or/and in a certain extent to corporate governance. Also, through this study it can be noticed how much do the most powerful American companies respect the Code and rules of corporate governance. The period analyzed covers the time interval 2000-2013, being comprised not only the initial period of using corporate governance, but also the period after the crisis of 2007 when the governance has become a necessity. The companies analyzed are in number of 51 being mainly part of the Dow Jones index, but also are traded on the NASDAQ market. Among the companies we underline Coca Cola, McDonald's, as well as Nike, which do not belong to the technology area, but which through their financial strength owned are similar to the companies from this area. However, course of actions are interdependent, so that we have preferred not to drop such corporations from the explored sample. There should be mentioned that we have excluded companies from the financial area such as Goldman Sachs, JP Morgan, and Visa. We have introduced for comparisons also smaller companies that are part from the same area of activity with the main American companies. Thus, we can analyze how corporate governance actions from the largest companies to the smaller one with the hope that there will appear differences or new signs which had not been analyzed in the previous studies.

The data have been taken and processed after the database of the Thomson Reuters Eikon platform. The database is formed not only from accounting documents, but also from documents which include the shareholders' structure and other information necessary for carrying out the corporate governance variables. We have used for the construction of some corporate variables the sites belonging to each company.

Table 1 describes the variables employed within current empirical research. The analysis has at base four dependent variables which represent the profitability and performance indicators (ROA, ROE, ROIC, Tobin's Q). In the studies analyzed we do not find ROIC, but it has been desired to be a novelty element that shows how the company invests the money. Attracting the resources borrowed without generating the growth of the operating results would generate a decrease of ROIC. It does not depend necessarily on the indebtedness degree so it does not influence directly the effective rate, but it is higher than the cost of capital (WACC) then the company has brought value added to investors. Tobin's Q is higher when the market is efficient and it shows if a company is attractive to investors. We have used it because it appears in numerous studies concerning the relationship between governance and performance and it is different to ROA/ROE because it is an indicator based on the market value.

As independent variables we have used corporate governance variables, found in many studies, as the board size (BS), the board independence (BI), the share of women on the board, salary and rewards received by the CEO, ownership of CEO, CEO age, and CEO tenure. We have used the dummy variables to show the structure of the committees existent at the level of the company and if the CEO is also Chairman in the company.

Table 1. Description of the variables

Variables	Description
Financial Performance Variables - Dependent Variables	
ROA	Return on Assets computed as $Net\ Income/Total\ Assets$. ROA measures the efficiency of allocating capital in fixed assets and net current assets. It expresses the manager's capacity of managing the economic assets invested by the stakeholders in order to generate useful resources.
ROE	Return on Equity computed as $Net\ Income/Total\ Equity$. ROE shows the company performance from the shareholders perspective. It expresses the capacity of distributing the dividends and of increasing the reserves.
ROIC	Return on Invested Capital computed as $EBIT(1-\tau)/Total\ Equity + Total\ Long\ Term\ Debt$. ROIC does not depend on the indebtedness degree so it does not influence directly the effective rate only if it higher than the cost of capital than the company has brought value added to investors.
Q	Tobin's Q Ratio computed as $The\ market\ value\ of\ the\ company/Total\ assets$. Q shows the ratio between market value of assets (market capitalization+ debts) and the replacement cost.
Corporate Governance Variables - Explanatory Variables	
<i>Variables towards characteristics of the Board of Directors</i>	
BI	Board Independence . Shows the share of non-executive directors on the board.
BS	Board Size computed as $\ln(The\ total\ number\ of\ executive\ directors + Non-executive\ directors)$. BS shows the number of the directors on the board.
WB	Women on Board . It represents the share of female gender members in the total number of the board members.
RC	Risk Committee . It is a dummy variable equal to 1 if there is a Risk Committee and equal to 0 if there is not a Risk Committee together with the Audit, Nomination, and Remuneration Committees.
BC	Board Committee . It is a score/rating which takes values from 0 to 4, where the values express the number of Advisory Committees (Audit, Compensation, Governance, and Nomination).
<i>Variables towards Ownership Structure</i>	
IO	Institutional Ownership . Shows the percentage of stocks owned by the institutional investors in a certain company.
CEOH	CEO Holdings . Represents the percentage of stocks possessed by the CEO.
<i>Variables towards CEO Characteristics</i>	
CEOT	CEO Tenure . The number of years since the CEO is leading (tenure).
CEOA	CEO Age . The age of CEO.
CEOD	CEO Duality . Is a dummy variable equal to 1 if the CEO is Chairman of Board and 0 if he is not.
<i>Variables towards CEO Remuneration</i>	
CEOS	CEO Salary computed as $\ln(Basic\ Salary - Salary\ without\ compensation)$.
CEOB	CEO Bonus computed as $\ln(Bonus\ Salary - Bonuses\ and\ compensations)$.
CEOSA	CEO Stock Award computed as $\ln(Compensations\ in\ stocks)$.
Firm-Level Control Variables	
FS	Firm Size computed as $\ln(Total\ Assets)$. Represents the size of the company.
LEV	Leverage Ratio computed as $Total\ debt/Total\ Equity$. Shows the company capacity of performing long term obligations. The pecking order theory suggests that profitable companies have a smaller leverage. The leverage is a structure rate of capital (indebtedness ratio).

The institutional investors (IO) are important not only through the size, but also through their ownership and through the fact that they are a means of defending the minority stockholders. Being some of the members that participate and vote in the major decisions taken by the company it influences the impact of corporate governance and as a consequence they must be included in any econometric model that studies corporate governance (Black, 1998). Nesbitt (1994) shows that the returns of the stocks are growing at the companies in which large pension funds invest in. The return indicators calculated are influenced by many factors so that we

have used as independent variables of control the size of the company (FS) and LEV which show the company capacity to realize its long term obligations. Due to adverse selection, Myers (1984) stated that firms prefer internal to external finance. In fact, when outside funds are necessary, corporations choose debt to equity because of lower information costs associated with debt issues.

4.2 Empirical Specification

Al-Najjar (2014) considers that the panel data are not the most suitable for the econometric analysis because the corporate governance factors do not change considerably during the time. Al-Najjar (2014) has used in his study the modeling of cross sectional time series. Petersen (2009) argues that the standard errors are adjusted so that they eliminate the cases in which there correlated between companies along time, which would make them biased so to loose from precision. Coles et al. (2005) attract the interest that in the econometric estimation of the relationships between the corporate governance and the financial performance of the companies there can appear the endogeneity problem. Thus, the variables analyzed can be correlated between them and it is proposed the estimation method of type 2SLS (Two Stage Least Squares). We have developed two econometric models of panel data type which follow the influence of corporate governance factors (independent variable) on the financial performance (ROA, ROE, ROIC, Q) during the period 2000-2013. Each model includes 51 companies.

The specification of each econometric model is described below:

$$Performance_{it} = \alpha + \beta_1 \times FS_{it} + \beta_2 \times BI_{it} + \beta_3 \times WB_{it} + \beta_4 \times CEOD_{it} + \beta_5 \times CEOH_{it} + \beta_6 \times CEOA_{it} + \beta_7 \times CEOT_{it} + \beta_8 \times RC_{it} + \beta_9 \times BC_{it} + \beta_{10} \times BS_{it} + \beta_{11} \times LEV_{it} + e_{it} \quad (1)$$

$$Performance_{it} = \alpha + \beta_1 \times CEOS_{it} + \beta_2 \times CEOB_{it} + \beta_3 \times CEOSA_{it} + e_{it} \quad (2)$$

Where α is the intercept and represents the variance of the dependent variable when the independent variables are equal to 0. It quantifies the influence on financial performance of all the variables unlisted in the model through the independent variables already chosen.

The OLS estimation assumes that all observations have the same error variance and that errors are independent (are not autocorrelated). Unfortunately, in the panels' case these rules are not respected because we discuss about different variables (such as different companies) with different rules. In order to eliminate the impact of econometric elements that affect usually the results, heteroskedasticity, multicollinearity, autocorrelation of errors in estimating OLS, we have employed multivariate regression models with fixed effects (FE), the method of the generalized least squares (GLS), and the correction of standard errors for heteroskedasticity using White method. These options have the function to stabilize the model, to reduce the standard errors, and implicitly of increasing the confidence level associated to coefficients. The estimation of the GLS has the role of producing estimators of type Best Linear Unbiased Estimators (BLUE). BLUE is interpreted through the fact that the estimators α and β give real values for the model parameters and that they are the best unbiased linear estimator. Gujarati (2004) considers that the GLS estimation is used if there is heteroskedasticity in the data in order to eliminate. Also, Gujarati (2004) considers that the presence of heteroskedasticity can be checked intuitively in some cases and if are taken smaller, medium, and large companies it is more likely to exist. In the present paper we have mixed companies of different sizes in order to notice the impact of corporate governance and depending on the size of the company. There can be unique constant variables for each company that we have not introduced in the model. The economic reality says clearly that there exist such variables and in order to compensate their lack we can use fixed effects that allow a better estimation of the OLS. For the robustness of the estimation we must ensure that the fixed effects have the sense to be used and we can check this fact by using the redundant fixed effects-likelihood ratio. The fixed effects allow the intercept to modify from an observation to another as to catch those unique characteristics. A disadvantage would be that this method absorbs many degrees of freedom. If the p-value associated to the test is less than 5%, then we can use the fixed effects. Another way we can ensure that the fixed effects are good is to apply to an estimation with random effects the Hausman test which is of type chi-squared. If the p-value obtained is less than 5%, it indicates the fact that it must be renounced at the model with random effects in favor of the one with fixed effects.

5. Research Findings

5.1 Descriptive Statistics

Table 2 provides descriptive statistics and Table 3 shows the Pearson's correlation coefficients. For estimations we have used the soft Eviews 7. For the total number of 700 observations, we can notice that the board size varies between 12 and 32 members.

Table 2. Descriptive statistics

Variables	Minimum	Maximum	Mean	Median	Std. Dev.	No. Obs.
ROA	-0.67	0.47	0.12	0.12	0.11	700
ROE	-0.92	0.32	0.18	0.18	0.20	700
ROIC	-0.91	0.45	0.11	0.11	0.11	700
Q	-0.08	12.82	0.58	0.00	1.64	700
BI	0.00	0.77	0.03	0.00	0.12	700
BS	1.95	16.00	3.07	2.89	1.62	700
WB	0.00	0.42	0.01	0.00	0.06	700
RC	0.00	1.00	0.01	0.00	0.08	700
BC	0.00	4.00	3.49	4.00	0.93	700
IO	0.00	0.93	0.05	0.00	0.19	700
CEOH	0.00	0.67	0.07	0.00	0.29	700
CEOT	0.00	26.00	2.29	0.00	4.63	700
CEOA	46.00	76.00	22.18	0.00	27.77	700
CEOD	0.00	1.00	0.27	0.00	0.44	700
CEOS	8.85	20.05	13.17	13.51	2.63	700
CEOB	0.00	16.52	7.14	10.00	6.90	700
CEOSA	0.00	17.36	5.25	0.00	6.99	700
FS	4.18	20.50	14.96	16.43	4.14	700
LEV	-5.81	18.85	0.66	0.28	1.27	700

Source: Author's computations.

Table 3. The Pearson correlation matrix

Variables	1	2	3	4	5	6	7	8	9	10
1. ROA	1									
2. ROE	0.496	1								
3. ROIC	0.869	0.652	1							
4. Q	0.356	-0.069	0.245	1						
5. BI	-0.283	-0.086	-0.280	0.004	1					
6. BS	-0.225	-0.100	-0.218	0.073	0.146	1				
7. WB	0.137	0.164	0.204	-0.003	0.103	0.054	1			
8. RC	-0.201	0.013	-0.037	0.047	0.170	-0.025	0.178	1		
9. BC	0.016	-0.066	0.007	0.034	0.153	0.061	-0.180	0.062	1	
10. IO	-0.045	-0.211	-0.118	0.274	0.273	0.156	-0.179	0.097	0.562	1
11. CEOH	0.159	-0.095	0.015	0.026	0.042	-0.066	-0.096	-0.039	0.098	0.128
12. CEOT	-0.295	-0.278	-0.332	0.160	0.085	-0.135	-0.260	0.148	0.136	0.193
13. CEOA	-0.002	0.026	-0.030	-0.030	0.128	-0.247	0.034	0.080	-0.092	0.087
14. CEOD	-0.293	0.046	-0.212	-0.196	0.169	-0.190	0.106	0.217	-0.232	-0.182
15. CEOS	0.054	0.190	0.052	-0.194	-0.028	0.004	0.054	0.028	0.029	-0.179
16. CEOB	0.006	0.078	0.012	-0.133	0.179	-0.092	0.062	0.324	0.004	0.042
17. CEOSA	-0.013	0.102	-0.002	0.143	0.138	-0.123	0.250	0.249	-0.122	0.026
18. FS	0.013	0.397	0.118	-0.755	-0.092	-0.099	0.181	0.051	-0.004	-0.284
19. LEV	-0.170	0.187	-0.160	-0.091	-0.057	0.024	-0.085	0.560	0.052	0.018

Variables	11	12	13	14	15	16	17	18	19
11. CEOH	1								
12. CEOT	-0.034	1							
13. CEOA	0.123	0.329	1						
14. CEOD	0.137	0.125	0.355	1					
15. CEOS	-0.053	-0.037	-0.133	0.063	1				
16. CEOB	0.101	-0.094	0.265	0.347	-0.085	1			
17. CEOA	-0.168	0.252	0.302	0.360	-0.185	0.390	1		
18. FS	-0.120	-0.260	0.095	0.162	0.413	0.289	0.130	1	
19. LEV	-0.057	0.216	0.119	0.175	0.114	0.196	0.176	0.194	1

Source: Author's computations.

The CEO age varies between 46 and 76 years (stock symbol EPIQ) and the most time someone has had the position of CEO had been for 26 years (EPIQ). Interesting to follow is the share of the women in the total members of the board (WB). This share has a variation increased from 1.3% to 42% recorded by Procter & Gamble Company. The share of the institutional investors is important and it can be noticed that it varies from 0% to 93% for the company LamResearchCorp.

The correlation matrix is used usually for the econometric analysis of multicollinearity. As regards the interpretation of the values related to the correlation matrix, it can be noticed that there exists a powerful positive correlation (the correlation coefficient is close to 1 in some cases) between ROA, ROE, and ROIC. In fact, we notice an obvious correlation since all the indicators are calculated similarly, but these variables are not employed in the same regressions, so we can consider that they does not influence the empirical results. Another correlation, but not high, is found between CEOA and CEOT, fact expected since these variables are interrelated. Powerful negative correlations (value close to 1) do not exist.

5.2 Econometric Results

Model 1. We followed the impact between board of directors' characteristics, ownership structure, CEO characteristics, and financial performance. As we have mentioned in the previously sections, we have used in the estimation process the simple variant OLS, but also the generalized method of the least squares (GLS).

Table 4 discloses the output of redundant fixed effects tests and correlated random effects-Hausman test. As such, we have used as well fixed effects (FE) as a consequence of the results of the aforementioned tests which sustain the use of these effects.

Table 4. Redundant fixed effects tests and correlated random effects-Hausman test

Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.574138	(49,638)	0.0000
Cross-section Chi-square	320.955821	49	0.0000
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.414122	12	0.9918

Source: Author's computations.

An important characteristic is that related to dispersion. The smaller it is, the higher is the relevancy of this indicator and the trust we give in the statistical inference. The degree of confidence associated with the coefficients is given by their standard error (SE). The results obtained for Model 1 with the dependent variable ROA, present standard errors that sustain a high relative confidence degree which can be associated to the coefficients. Andrei and Bourbonnais (2008) recommends an inferior limit of the ratio significance interval of 0.15 which is being exceeded for all the estimation options. The models can be considered valid although the

values are low than 50%. The t-Student test must have an associated p-value less than 5% in order to be statistically significant. The probability associated to the F test is null so it can be accepted the validity of the model for a confidence interval of 95%. The consequences of ignoring the autocorrelation are similar with those of ignoring the heteroskedasticity. The coefficients estimated through OLS are unbiased, but they are not BLUE and thus are ineffective. It can be battled by estimating GLS.

Table 5 shows the estimations related to the first model when ROA was employed as independent variable and Table 6 summarizes the sign of the relationships reported in Table 5. A positive influence has been found in variables RC, FS, WB, CEOA, and CEOH. The presence of the Risk Committee, although it is rare, has been expected to have a positive influence on ROA, performance indicator which shows if the manager has the capacity to manage more efficient the company's assets. Through the presence of this committee are monitored the decisions that could influence the company performance and it prevents risky situations. The size of the company influences ROA, but it must be mentioned that the influence can be both positive, as well as and negative. Nicodème (2007) considers that a large company has greater political power and can negotiate in its own interest for reducing the effective tax rate of the income and as consequence a reduction of ROA. The political power (the larger company is the effective tax rate is smaller) is sustained also by the studies of Hsieh (2012), Porcano (1986).

Table 5. OLS estimations of board of directors' characteristics, ownership structure, and CEO characteristics on ROA

Variables	ROA (FE)		ROA (FE GLS)		ROA (GLS)		ROA (FE White)	
	β	SE	β	SE	β	SE	β	SE
RC	0.01	0.05	0.02	0.02	0.112* (2.660)	0.04	0.01	0.02
CEOT	0.00	0.00	0.00	0.00	-0.002* (-2.945)	0.00	0.00	0.00
FS	0.00	0.01	-0.014* (-3.059)	0.00	0.001* (2.094)	0.00	0.00	0.01
BC	-0.01	0.02	-0.01	0.01	-0.004* (-2.191)	0.00	-0.012* (-3.213)	0.00
WB	0.08	0.13	0.04	0.07	0.03	0.08	0.078* (2.208)	0.04
BI	-0.14	0.10	0.01	0.05	-0.07	0.08	-0.135* (-2.924)	0.05
BS	0.00	0.02	-0.034* (-2.773)	0.01	0.00	0.00	0.00	0.02
CEOA	0.001* (3.690)	0.00	0.000* (2.913)	0.00	0.000* (6.785)	0.00	0.001* (2.189)	0.00
CEOD	-0.067* (-3.797)	0.02	-0.028* (-3.190)	0.01	-0.063* (-8.535)	0.01	-0.067* (-2.537)	0.03
CEOH	0.02	0.01	0.02	0.02	-0.01	0.01	0.017* (2.200)	0.01
IO	0.03	0.06	-0.02	0.03	0.03	0.05	0.03	0.03
LEV	-0.01	0.00	0.00	0.00	-0.011* (-6.155)	0.00	-0.01	0.00
C	0.18	0.14	0.455* (5.388)	0.08	0.104* (5.951)	0.02	0.18	0.15
Rsq	0.680		0.680		0.209		0.407	
Adj Rsq	0.650		0.650		0.195		0.351	
Fstat	22.239		22.239		15.144		7.185	

Note. * Significant at the 5-percent level. SE depicts the Standard Error of the Regression. The t-statistic for each statistically significant coefficient is reported in parentheses. Description of the variables is provided in Table 1. Source: Author's computations.

Table 6. The sign of the influence exerted by board of directors' characteristics, ownership structure, and CEO characteristics on ROA

Performance variables	RC	CEOT	FS	BC	WB	BI	BS
ROA	+	-	- / +	-	+	-	-
Performance variables	CEOA	CEOD	CEOH	IO	LEV	C	
ROA	+	-	+		-	+	

Zimmerman (1983) considers vice versa that a larger company is taxed more by the state and in this way it takes place a reduction of net income, implicitly of ROA. The variable WB has a positive influence on ROA. The reason is that women being more balanced, have a greater risk aversion than men, and take less risky financial decisions. Women have the capacity to come up with new ideas and new concepts of using more effectively company's assets and in this way it can be explained why WB has a positive influence on ROA. The CEO age also has a positive impact on ROA, the explanation being of human nature. An older age represents in fact a greater professional experience. CEO ownership influences positively financial performance, also from human considerations. The more they own in the company, the more motivated they are to take the correct decisions for the company being in stake their own interest. A negative impact is had by CEOT, CEOD, BI, BC, BS, and LEV. The corporate governance variables that have a negative impact can be explained through the cost perspective that is reflected on the company. More monitoring committees, more members of the board inclusively those independent, assume costs which must be supported by the company. The costs lead implicitly to a reduction of the net income which will influence inevitably also the financial performance of the company through reduced performance indicators. CEOT has a negative impact explained through the fact that a CEO which holds a position for too many years becomes too sure of its position and can take riskier decisions which can affect the financial performance reflected through ROA. The variable CEOD is related to the same idea of greater power that we consider a CEO has and which can influence negatively his financial decisions. LEV has a negative impact although Modigliani-Miller (1958) have shown that an indebted company is more valuable, financially the debts assume a cost that is reflected on net income, and implicitly on ROA.

Table 7 discloses the estimations related to the first model when ROE was considered as independent variable.

Table 7. OLS estimations of board of directors' characteristics, ownership structure, and CEO characteristics on ROE

Variables	ROE (FE)		ROE (FE GLS)		ROE (GLS)		ROE (FE White)	
	β	SE	β	SE	β	SE	β	SE
RC	-0.17	0.10	-0.03	0.04	-0.02	0.06	-0.17	0.14
CEOT	0.00	0.00	0.00	0.00	-0.003* (-2.829)	0.00	0.00	0.00
FS	0.02	0.01	0.00	0.01	0.009* (9.446)	0.00	0.02	0.01
BC	-0.02	0.04	-0.01	0.01	0.00	0.00	-0.024* (-3.052)	0.01
WB	0.36	0.24	0.14	0.11	0.07	0.12	0.356* (2.584)	0.14
BI	-0.04	0.18	0.04	0.10	0.08	0.12	-0.04	0.08
BS	-0.073* (-2.287)	0.03	-0.094* (-4.520)	0.02	0.009* (2.224)	0.00	-0.07	0.05
CEOA	0.001* (2.517)	0.00	0.001* (3.959)	0.00	0.001* (5.648)	0.00	0.001* (2.383)	0.00
CEOD	-0.075* (-2.266)	0.03	-0.049* (-4.230)	0.01	-0.065* (-7.349)	0.01	-0.075* (-2.412)	0.03

CEOH	0.018* (0.719)	0.03	0.01	0.01	0.01	0.01	0.02	0.01
IO	-0.10	0.10	-0.06	0.05	-0.06	0.07	-0.10	0.06
LEV	0.057* (6.238)	0.01	0.01	0.01	0.023* (5.295)	0.00	0.06	0.04
C	0.15	0.26	0.449* (3.759)	0.12	0.00	0.02	0.15	0.20
Rsqr	0.42		0.65		0.31		0.42	
Adj Rsqr	0.36		0.62		0.30		0.36	
Fstat	7.43		19.35		25.48		7.43	

Note. * Significant at the 5-percent level. SE depicts the Standard Error of the Regression. The t-statistic for each statistically significant coefficient is reported in parentheses. Description of the variables is provided in Table 1. Source: Author's computations.

Neither for the ROE variable as neither for the other performance variables, the estimation did not provide a coefficient of determination (Rsqr) to validate the model for simple OLS case without effects or GLS weight. We have applied the Hausman test also for the independent variable ROA and p-value associated to the test is equal to 0.1116, which sustains the possibility of using the fixed effects. The coefficient of determination is higher than in the case of ROA reaching even 65%. The probability associated to the F test is null so it can be accepted the validity of the model for a confidence interval of 95%. The values specific to Durbin Watson are also high in comparison with ROA model, but they maintain low.

Table 8 summarizes the situation of the significations of the influences of corporate governance variables on the financial performance represented by ROE.

Table 8. The sign of the influence exerted by board of directors' characteristics, ownership structure, and CEO characteristics on ROE

Performance variables	RC	CEOT	FS	BC	WB	BI	BS
ROE		-	+	-	+		- / +
Performance variables	CEOA	CEOD	CEOH	IO	LEV	C	
ROE	+	-	+		+	+	

Source: Author's processing.

It can be noticed that the situation is identical to ROA, both return indicators being calculated similarly and having a similar financial value. There are also differences from ROA as it would be LEV which this time has a positive influence. The explanation is of behavioral nature and it represents the fact that ROE highlights the company performance from the stockholders' perspective. The stockholders prefer a higher indebtedness degree, thus the financing pressure is transferred to creditors. Another difference is found in the size of the board which has both meanings. A larger board, in addition to the remuneration of the members, can also have advantages through the fact that the most important company decisions can be analyzed and discussed in more detail. In this way it can be chosen the best option that can bring a value added to the company and implicitly to ROE which is a financial profitability indicator. Also for the variable ROIC it is admitted the use of fixed effects through the exploitation of the Hausman test which presents a probability of 70.67% over the limit of 5% admissible in order to reject the fixed effects. From the significance point of view, ROIC follows the same pattern as the variable ROA being identical for the dependent variables. The only difference is CEOH which for ROIC is not statistically significant.

Table 9 shows the estimations related to the first model when ROIC was employed as independent variable.

Table 10 exhibits the estimations related to the first model when Q was employed as independent variable. Unlike the other three, this one is valid without the fixed effects or the GLS weight. The coefficient of determination is higher than the first three OLS estimations even reaching the value of 83% which sustains the validity of the models. The probability associated to the F test also sustains the validity of the models analyzed.

A serious problem that must be examined is the lower value of the Durbin Watson coefficient which is lower than the rest of the independent variables showing the autocorrelation presence. Thus, for the model with Tobin's Q the interpretation of the results must be questionable taking into account the autocorrelation.

Table 11 synthesizes the influence signs of the board of directors' characteristics, ownership structure, and CEO characteristics on all performance proxies. The empty spaces represent the variables that have not been significant for a statistical level of significance of 5%. For the variable Q which is calculated differently of the other variables it is noticed that it is kept the same significance at the first three performance variables, the difference being given by the fact that five variables are not statistically significant for this model. Because it is an indicator based on the market value (stock capitalization) it catches also the perception of the potential investors on the company. Surprisingly, the FS has a negative impact. The explanation could be given by the fact that a large company reaches maturity and that investors want growth possibilities that the company cannot have. The presence of the Audit, Compensation, Governance, and Nomination Committees also have a negative impact, contrary to the expectations. The board independence has a negative impact; the explanation could be given by the fact that too many non-executive members, even if they monitor the company, in a large number they become useless and can be seen as redundant costs. The size of the board has a positive influence on Tobin's Q on the economic consideration that more members are an indicator of better organization and more minds to reflect on the financial decisions taken. The CEOA is positive in all the cases analyzed and is predictable because the age is an indicator of the CEO experience. The CEOD is negative in all the case being expected that in a certain moment the USA Corporate Governance Code does not allow that the CEO has too many functions in the same company. The CEOH is positive for ROA and ROE and is a normal result since the CEO by owning stocks in the company becomes also stockholder and is in this way interested also in the managers' profitability (ROA) and in that of the stockholders (ROE). LEV is a control indicator which represents the indebtedness degree which is on the taste of stockholders (positive influence on the ROE), but is not appreciated by the managers (negative influence on ROA) being a way of controlling the stockholders in the agency problems.

Table 9. OLS estimations of board of directors' characteristics, ownership structure, and CEO characteristics on ROIC

Variables	ROIC (FE)		ROIC (FE GLS)		ROIC (GLS)		ROIC (FE White)	
	β	SE	β	SE	β	SE	β	SE
RC	0.05	0.06	0.00	0.02	0.089* (2.783)	0.03	0.055* (2.533)	0.02
CEOT	0.00	0.00	0.00	0.00	-0.002* (-3.661)	0.00	0.00	0.00
FS	0.00	0.01	-0.013* (-2.451)	0.01	0.003* (3.671)	0.00	0.00	0.01
BC	-0.01	0.02	-0.01	0.01	-0.003* (-1.955)	0.00	-0.011* (-2.789)	0.00
WB	0.08	0.14	0.04	0.07	-0.02	0.07	0.077* (2.455)	0.03
BI	-0.10	0.11	0.01	0.05	-0.10	0.07	-0.096* (-2.052)	0.05
BS	0.00	0.02	-0.033* (-2.580)	0.01	0.00	0.00	0.00	0.02
CEOA	0.001* (3.090)	0.00	0.000* (3.212)	0.00	0.000* (7.218)	0.00	0.001* (2.030)	0.00
CEOD	-0.059* (-3.062)	0.02	-0.030* (-3.321)	0.01	-0.066* (-9.061)	0.01	-0.059* (-2.193)	0.03
CEOH	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01
IO	0.00	0.06	-0.02	0.03	0.06	0.04	0.00	0.02

LEV	-0.01	0.01	0.00	0.00	-0.012* (-7.398)	0.00	-0.01	0.00
C	0.14	0.15	0.413* (4.787)	0.09	0.076* (4.576)	0.02	0.14	0.15
Rsqr	0.36		0.67		0.30		0.36	
Adj Rsqr	0.30		0.64		0.28		0.30	
Fstat	5.86		21.53		24.10		5.89	

Note. * Significant at the 5-percent level. SE depicts the Standard Error of the Regression. The t-statistic for each statistically significant coefficient is reported in parentheses. Description of the variables is provided in Table 1. Source: Author's computations.

Table 10. OLS estimations of board of directors' characteristics, ownership structure, and CEO characteristics on Q

Variables	Q		Q (FE)		Q (FE GLS)		Q (GLS)		Q (FE White)	
	β	SE	β	SE	β	SE	β	SE	β	SE
RC	-0.16	0.66	0.11	0.47	-0.01	0.03	-0.01	0.18	0.11	0.14
CEOT	-0.01	0.01	-0.01	0.02	0.00	0.00	0.01	0.00	-0.01	0.02
FS	-0.272* (-21.932)	0.01	-0.372* (-5.287)	0.07	-0.01	0.01	-0.094* (-16.366)	0.01	-0.372* (-3.027)	0.12
BC	-0.07	0.05	0.02	0.19	0.00	0.01	-0.025* (-3.288)	0.01	0.02	0.02
WB	2.10	1.61	0.32	1.13	0.00	0.08	0.04	0.30	0.32	0.29
BI	-1.09	1.25	-0.95	0.87	0.00	0.07	0.18	0.29	-0.950* (-2.254)	0.42
BS	0.139* (4.997)	0.03	0.29	0.15	0.00	0.02	0.213* (11.172)	0.02	0.29	0.36
CEOA	0.011* (3.602)	0.00	0.006* (2.346)	0.00	0.00	0.00	0.001* (2.125)	0.00	0.01	0.00
CEOD	-0.621* (-3.779)	0.16	-0.10	0.16	0.00	0.01	-0.05	0.03	-0.10	0.15
CEOH	-0.12	0.17	0.02	0.12	0.00	0.01	0.04	0.05	0.02	0.03
IO	0.03	0.70	0.33	0.50	0.00	0.04	-0.13	0.18	0.33	0.18
LEV	0.139* (3.456)	0.04	-0.01	0.04	0.00	0.00	0.017* (2.107)	0.01	-0.01	0.01
C	4.363* (0.000)	0.28	5.121* (4.057)	1.26	0.646* (5.277)	0.12	1.062* (8.918)	0.12	5.121* (5.642)	0.91
Rsqr	0.49		0.79		0.83		0.36		0.79	
Adj Rsqr	0.49		0.77		0.82		0.34		0.77	
Fstat	56.11		39.32		52.00		31.57		39.32	

Note. * Significant at the 5-percent level. SE depicts the Standard Error of the Regression. The t-statistic for each statistically significant coefficient is reported in parentheses. Description of the variables is provided in Table 1. Source: Author's computations.

Table 11. The sign of the influence exerted by board of directors' characteristics, ownership structure, and CEO characteristics on all performance variables

Performance variables	RC	CEOT	FS	BC	WB	BI	BS
ROA	+	-	- / +	-	+	-	-
ROE		-	+	-	+		- / +
ROIC	+	-	- / +	-	+	-	-
Q			-	-		-	+
Performance variables	CEOA	CEOD	CEOH	IO	LEV	C	
ROA	+	-	+		-	+	
ROE	+	-	+		+	+	
ROIC	+	-			-	+	
Q	+	-			+	+	

Model 2. We followed the impact between the CEO remunerations and financial performance. The remuneration can be of salary nature, bonuses, or stock packages at the respective company (Table 1).

Table 12 shows the estimations related to the second model when ROA was employed as independent variable. It is noticed that the dependent variables are not statistically significant for a significance level of 5%.

Table 12. OLS estimations of CEO Remuneration on ROA

Variables	ROA (FE)		ROA (FE GLS)	
	β	Prob.	β	Prob.
CEOS	-0.001	0.640	0.000	0.943
CEOB	0.001	0.246	0.000	0.722
CEOSA	0.001	0.206	0.000	0.133
C	0.121*	0.000	0.118*	0.000
Rsq		0.39		0.75
Adj Rsq		0.34		0.72
Fstat		7.88		36.43

Note.* Significant at the 5-percent level. Description of the variables is provided in Table 1. Source: Author's computations.

Table 13 shows the estimations related to the second model when ROE was employed as independent variable. It is noticed that only the CEOSA has been statistically significant for the 5-percent level, having the positive influence on the financial performance through the ROE indicator. The result is not surprising being obvious the positive influence of the remunerations on the performance indicators. It is predictable as the salary and the bonuses not to be significant since they are established even by the CEO together with the rest of the board members.

Table 13. OLS estimations of CEO Remuneration on ROE

Variables	ROE (FE)		ROE (FE GLS)	
	β	SE	β	SE
CEOS	0.001	0.002	0.002	0.004
CEOB	0.000	0.000	0.000	0.002
CEOSA	0.002*	0.000	0.003*	0.001
	(2.495)		(2.500)	
C	0.158*	0.020	0.148*	0.048
	(7.747)		(3.117)	

Rsq	0.37	0.67
Adj Rsq	0.32	0.64
Fstat	7.32	25.03

Note. * Significant at the 5-percent level. SE depicts the Standard Error of the Regression. The t-statistic for each statistically significant coefficient is reported in parentheses. Description of the variables is provided in Table 1. Source: Author's computations.

Unlike ROA, where it has not been significant the CEO reward with stock packages as variable is significant in the ROE model. This fact is expected, ROE being the return of the stockholders and through the reward in stocks the CEO becomes automatically stockholder. In this way he is motivated to increase the financial performance measured as ROE because at its own turn it will benefit of dividends and of exchange rates increases of the stocks with which he is rewarded.

Table 14 points out the estimations related to the second model when Q was employed as independent variable. It is noticed that they have been statistically significant for a significance interval of 5% the variables CEOSA and CEOB. Paradoxically, for the model with independent variable Q, the CEOSA has a negative influence on financial performance. An explanation could be that Tobin's Q reflects the investors' perception and that these ones can consider the CEO remuneration with stocks as an action through which he has greater power in the company.

Table 14. OLS estimations of CEO Remuneration on Q

Variables	Q (FE)		Q (FE GLS)	
	β	SE	β	SE
CEOS	-0.011	0.017	-0.001	0.000
CEOB	0.033 * (4.661)	0.007	0.000	0.001
CEOSA	-0.019 * (-3.538)	0.005	0.000	0.001
C	0.588 * (2.651)	0.222	0.589 * (79.868)	0.007
Rsq	0.79		0.81	
Adj Rsq	0.77		0.80	
Fstat	46.36		54.69	

Note. * Significant at the 5-percent level. SE depicts the Standard Error of the Regression. The t-statistic for each statistically significant coefficient is reported in parentheses. Description of the variables is provided in Table 1. Source: Author's computations.

6. Comparisons with Previous Studies

We have obtained a negative correlation between financial performance and the board independence (BI). Similar results are found also in the studies of Bhagat and Black (2000) which have used as proxy variable for performance Tobin's Q for NASDAQ companies; Hermalin and Weisbach (1991); Yermack (1996); Metrick and Ishii (2002). The negative correlation is also found in the studies of Guest (2008) which uses as proxy variables for performance both ROA and Tobin's Q for analyzing the United States of America and Great Britain. Negative correlation for USA has also identified Erkens et al. (2012). MacAvoy and Millstein (1999) have found better performance for companies that have an active and independent management. The positive correlation between non-executive members and financial performance has been found by the studies of Dahya and McConnell (2007), Bhagat and Bolton (2008), and Al-Najjar (2014) which used as proxy for performance both ROA and ROE.

We obtained both positive correlation and negative correlation between the size of the board (BS) and the financial performance. The similar results for negative correlation have been obtained also by Eisenberg et al. (1998), Haniffa and Hudaib (2006), Hermalin and Weisbach (2003), Yermack (1996), Guest (2008) who have

used as proxy variable for performance Tobin's Q and ROA. The negative correlation has been also found by Cheng (2008), Adusei (2011), Chang and Dutta (2012). The positive correlation has been identified by Adams and Mehran (2005), Dalton and Dalton (2005), Al-Najjar (2014).

We have obtained positive correlation between financial performance and the share of women on the board (WB). Similar results have also obtained Vintilă et al. (2014). Fidanoski et al. (2014) have found a negative correlation between the share of women and financial performance indicators as ROA and ROE. We have obtained a positive correlation between financial performance and the CEO age (CEOA). Researches with similar results had been realized by Bhagat and Bolton (2008).

We have obtained a negative correlation between financial performance and CEO tenure (CEOT). Similar results are found also in the papers of Boone et al. (2007), Dikolli et al. (2011), Horstmeyer (2011), and Berger et al. (2012). Boone et al. (2007) have analyzed also the American market and in addition to the variables recorded they have included also the CEO stock possessions that had a negative impact on corporate governance factors acting on their financial performance. Among this we can enumerate positive and negative contradictory experiences between the size of the board, the size of the company, the indebtedness degree and the financial performance. These differences vary according to the quantification variable of the management performance (ROA, ROE, and Q) each representing the interests of different stakeholders: stockholders, managers, investors. For the rest of representative variables of corporate governance we have concluded that the presence of the Risk Committee in addition to Audit Committee, the share of women on the board, the CEO age, as well as the fact that the CEO holds stocks of the company it emphasize a positive impact on financial performance.

7. Concluding Remarks

After the events from 2007 the financial world and CEOs of the companies have realized that they must give a higher importance to corporate governance and its implications. Numerous studies had been performed on this theme, but these are concentrated on the financial institutions. In the present paper we have wished to analyze how and if corporate governance influences companies part of the NASDAQ index. The study includes the period 2000-2013 on 50 companies and it shows that a great number of corporate governance factors action on the financial performance of them. Among them we can enumerate positive and negative contradictory correlations between the board size, the company size, the indebtedness degree, and the financial performance. These differences vary in accordance with the quantification variable of the management performance (ROA, ROE, Q); each represents the different stakeholder's interests: stockholders, managers, investors. For the rest of the representative variables of corporate governance we have obtained that the presence of the Risk Committee with Audit Committee, the share of women on the boards, CEO age, and the fact that the CEO holds stocks of the company they manage result in a positive correlation on the financial performance.

On the contrary, the tenure, the CEO duality, as well as the share of non-executive members (independent) on the board have a positive influence on financial performance. From the proxy variables of financial performance, Tobin's Q was the least influenced by the corporate governance variables and explanation being that it represents the perception of the investors on the capital market, investors who are not in direct contact with these elements. For any of the models analyzed, the share of the institutional investors has not been statistically significant. We have analyzed also the impact of the forms of CEO reward on financial performance and we have obtained, as it has been expected, a positive correlation on ROE and Tobin's Q. From the reward in the forms of salary, bonuses, and rewards in company stocks, the last two have been significant, the results being difficult to interpret. ROA has not been statistically significant for any of the reward forms and for Tobin's Q, the CEO reward through stocks has a negative correlation the explanation referring to the fact that the investors want to be represented by a manager who has more power. In this way they can ensure that there will not appear agency problems.

Although we have obtained an influence from the corporate governance variables on the financial performance of the largest companies part of the Dow Jones and NASDAQ, mainly from the technology area, it must be mentioned that the size of the estimation coefficients is relatively lower. Thus, the purpose of the paper, of identifying if the financial performance of the most important American companies is due to a certain extent to corporate governance, has not been totally reached, the influence of governance being presently lower. Regarding the history of companies we can state that their performance is sustained in a great measure by elements of corporate finance. As future research directions, our aim is to include several industries.

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