

The relationship between board diversity and firm performance: the Italian evidence

Paola Schwizer

Full Professor in Banking and Finance
University of Parma

Maria-Gaia Soana

Ph.D. in Banking and Finance, University of Rome Tor Vergata
Fellow worker in Finance, Banking and Insurance, Faculty of Economics, University of Parma

Doriana Cucinelli

Ph.D. student in Banking and Finance, University of Rome Tor Vergata
Fellow worker in Finance, Banking and Insurance, Faculty of Economics, University of Parma

Abstract

This paper examines the relationship between board diversity, financial performance and risk. Board diversity is intended as the presence of female and foreign directors on corporate boards. We analyze a sample of Italian listed companies during the period 2006-2008. The results show no statistically significant relationship between the number of female directors on boards and firm performance. The same results emerge with regard to the link between gender diversity and firm risk. When we consider the presence of foreign directors, a negative relationship emerges between this variable and firm risk.

Keywords: Board of Directors; Gender Diversity; Nationality Diversity; Risk; Firm Performance

JEL Classification: G30; J16; L25

Although this paper was written jointly by the authors, sections 1 and 5 are attributable to Paola Schwizer, Section 2 to Doriana Cucinelli and Sections 3 and 4 to Maria-Gaia Soana.

1. Introduction

Many studies focus on corporate governance and its features in different countries (Becht et al., 2002; Hopt and Leyens, 2004; La Porta et al. 2000; Fields and Keys, 2003). In recent years, the topic of board composition and gender diversity has been thoroughly analyzed.

The term "board diversity" can have several meanings, linked to differences in board composition in terms of ethnicity, age, education, nationality and gender. In this study, we focus on board diversity exclusively in terms of gender and nationality. In particular, we analyze whether the presence on boards of female and foreign directors has an impact on firm performance and risk.

Over the last decade, many authors have investigated the relationship between board composition and firm performance (Kiel and Nicholson, 2003; Van Ees et al., 2003; Uadiale, 2010), but the role of women on boards was barely considered.

After the financial crisis, several governments started to issue new laws on board composition. For example Norway, Spanish and France created a law on the presence of women on listed firm boards. Italy followed suit. In June 2011 the Italian Parliament voted in favor of "gender quotas" in listed companies. Most of these legislative initiatives are based on the idea that the presence of women on boards could significantly affect the quality of the corporate governance system.

Another aspect that is destined to change is the composition of boards in term of directors' nationality. With the increase of cross country mergers and acquisitions, the quota of board members representing foreign shareholders is increasing in Italian companies as well.

In order to investigate the relationship between board diversity and firm performance and risk in the Italian market, we carried out some empirical analyses on a sample of Italian listed companies in the period 2006-2008. Our analysis is constructed on a multi-regression model based on panel data. This study contributes to previous literature from three aspects.

Firstly, this paper investigates the impact of board diversity on firm performance in Italy (to our knowledge, no previous studies exist on the Italian market). In the light of the recent law on "gender quotas", this study examines the state-of-the-art in board composition prior to the introduction of the new legislation.

Secondly, this is the first study on the topic to use price to book value as a proxy for financial performance. This ratio has been shown in literature to correlate strongly with Tobin's q, the theoretical standard for measuring intangible assets (Villalonga, 2004). For this reason, price to book value is useful for evaluating the contribution of diversity (considered as an intangible asset) on market performance.

Thirdly, despite the existence of previous studies especially focused on the link between ethnic diversity and firm performance, our research investigates the relationship between the presence of foreign directors and firm risk.

The paper is organized as follows. Section 2 provides a literature review on the change in board composition and the evidence of the women's presence on boards and discusses the main hypotheses. Section 3 shows the sample and the methodology employed in the empirical analyses, the results of which are reported in Section 4. The last part is dedicated to the presentation of our main conclusions.

2. Literature Review

The composition of boards of directors is a growing area of research. One of the most important variables in board composition is the presence, or otherwise, of female directors. This argument has received considerable attention in a number of countries, such as the United States, Canada, Norway, France and the United Kingdom.

In recent years, several countries have imposed a broader presence of women in the boardrooms of listed companies. For example, in Norway, boards must have at least 40% of women; the same applies to France and Spain. This target should be achieved, by milestones, in about six years. In Italy, on 28 June 2011, the Italian Parliament voted in favor of the law on "gender quotas", according to which, by 2012, one fifth of board members must be represented by women.

Through this very innovative and far-reaching legislation, the Italian government aims at a general improvement in the quality of corporate governance subsequent to the financial crisis, based upon the idea that gender diverse boards allocate more effort to oversight and monitoring (Adams and Ferreira, 2008). Neither the Italian "Codice di Autodisciplina", issued by the Italian Stock Exchange, nor the supervisory provisions issued by Banca d'Italia tackled the question of gender diversity when they set quality requirements for board composition. But the European Commission, in its recent Green Paper - Corporate governance in financial institutions and remuneration policies (April 2011), assessed that "*promoting women to boards has one indisputably positive effect: it contributes to increasing the pool of talent available for a company's highest management and oversight functions*". This is major headway for women because for the first time the problem of board diversity is acknowledged at a European level.

Agency theory is the theoretical framework most often used by investors in finance and economics to understand the link between board characteristics and firm value. The arguments of Fama and Jensen (1983) are well known but, as a general statement, they propose a very important role for the board as a mechanism to control and monitor managers. The role of the board in an agency

framework is to resolve agency problems between managers and shareholders by setting compensation and replacing managers that do not create value for the shareholders.

In this theoretical framework, board characteristics such as size, independence and diversity can affect the value creation process. On one hand, diversity increases board independence because people with a different gender, ethnicity or cultural background might ask questions that would not have come from directors with more traditional backgrounds, bringing benefits in firm performance. On the other hand, a different perspective in decision-making and control may not necessarily lead to more effective monitoring because diverse board members may be marginalized. Hence, there could be a positive or negative relationship between board diversity and firm value. Carter et al. (2002) maintain that board diversity contributes to creating shareholder value: “*corporate diversity promotes better understanding of the marketplace, furthermore heterogeneity leads to the evaluation of more alternatives and more careful exploration of the consequences of these alternatives. Finally diversity promotes more effective global relationships*”. The authors find a positive relationship between the presence of women on boards and firm value, measured by Tobin’s Q, and Adams and Ferreira (2009) come to the same conclusion.

However other authors obtain different results: the presence of women on boards does not affect firm value, as measured by their proxy for Tobin’s Q (Camptel and Miniguez-Vera, 2007; Dobbin and Jung, 2011; Darmadi, 2011). A recent study conducted by Dobbing and Jung (2011) on 400 leading US companies between 1997 and 2005 highlights that an increase in the number of women on boards has no effect on subsequent profitability, but is followed by a significant decrease in stock value. The same results are reached by Marinova et al. (2010) in their research on the Dutch and Danish market in 2007.

Smith et al. (2005) highlight that the relationship between board diversity and firm value is ambiguous and depends both on the choice of performance variables and on the measurement of the proportion of women in management: Adams and Ferreira (2004) find a positive relationship between the proportion of women and ROE, but a negative relationship between female presence and ROA. More recent studies (Adams, Ferreira, 2009; Lückerrath-Rovers, 2010; Erhart et al., 2003; Ararat et al., 2010) demonstrate a positive relationship between board diversity and accounting performance (measured by balance sheet ratios such as ROA, ROE or ROI), but Minguez Vera et al. (2010), Darmadi (2011), Francoeur et al. (2007) find a negative relationship between the same variables.

In support of the existence of a positive relationship between board diversity and firm performance, one of the most important studies is the Catalyst investigation of 2007. In this study, based on

Fortune 500 companies, the researcher highlights that the companies with the highest performance, in terms of ROE, ROIC and ROS, are those with the greatest presence of women on boards.

In the light of these results, the empirical studies on the effect of board diversity on firm performance are inconclusive. One of the reasons for this conclusion may be due to the kind of methodology used. The different time series analyzed, the different data, types of company, countries and measurements of diversity and firm performance applied could be the cause of the different results obtained in the studies (Rhode et al., 2010).

Some authors verify the existence of a positive relationship between the presence of women on boards and board size (Carter et al., 2002), although Marinova et al. (2010) find an inverse correlation between board size and firm performance; Adams and Mehran (2004), considering a sample of 35 bank holding companies in the period 1997-1999, come to the same conclusion. They show a positive relationship between board size and the Tobin's Q of banks, but a negative relationship between board size and firm performance of non financial firms. In contrast with these results, Gulamhussen and Fonte Santa (2010), in a study on a sample of 461 large banks from OECD countries, find that banks with larger boards perform less and have lower asset quality than banks with smaller boardrooms. Authors also highlight that the presence of women in the audit committee leads to better performance and better asset quality, and this relation is statistically significant in terms of ROA, Tobin's Q, loan loss provision and impaired loan ratios, that represent only a part of the total variables analyzed in the study. There is also a positive relationship between performance (ROE) and the presence of female directors when the number of women in this committee increases.

Another important aspect considered in literature is the relationship between the presence of female directors on boards and the risks run by firms. Several scholars (Gulamhussen and Forte Santa, 2010; Minguéz-Vera and Maritin, 2010) find a negative correlation between the two variables: this result may be explained by the theory that women are more risk-averse than men and so if the presence of women on boards is high, firms tend to run fewer risks (Jianakoplos and Bernasek, 1998; Smith et al., 2006; Olsen and Currie, 1992). To confirm this result, Gul et al. (2010), on a sample of US firms observed in the period 2001-2002, find a significantly lower level of cost of capital in firms that have at least one female director on the board. This demonstrates that the capital market responds well to the presence of women in top management positions.

Many authors study board diversity also in terms of cultural diversity. Richard (2000) assesses a relationship between cultural diversity, firm strategy and performance. Although he finds a positive relationship between the two variables, the study concludes that this result needs to be interpreted in a broader context. Ruigrok et al. (2007) also study gender and nationality diversity. The authors

analyze a sample of 210 Swiss firms and investigate how nationality and gender diversity on boards interact with the independence and demographic characteristics of the other directors. The authors highlight that *“foreign directors tend to be more independent and women directors tend to be affiliated to firm management through family ties”*. Furthermore, the researchers find that women and foreign directors differ in terms of educational level and educational background. Marimuthu (2008) studies ethnic diversity, measured in terms of the number of foreign directors out of total directors, in a sample of Malaysian firms and he finds a positive relationship between the foreign directors and firm performance (measured by ROA). The researcher declares that his study has some limitations: one of these is that Malaysia is a multi-cultural country and therefore some directors considered as “domestic” actually represent different cultures.

In Italian boards the presence of women is currently very low. In 2009, there were about 160 listed firms without any women on the board, and there is a high number of companies with only one woman, although a study conducted by Assonime (2010) shows an increase over time in the presence of women on boards. The same picture more or less applies if we consider foreign directors.

In light of this situation, one of the most important problems may be explained by the theory of tokenism. According to the tokenism theory, *“the minorities in larger groups are subject to discriminating behavior and hence face barriers in influencing group decisions: this can happen when the percentage of women on the board is lower than 15%”* (Elstad and Ladegard, 2010). However, these authors, in a study on 458 women on Norwegian corporate boards, show that, even although in many cases the presence of women is very low, they are still able to influence the decisions of boards, because they have a *“high level of information sharing and a low level of self-censorship”*. For this reason, the authors maintain that tokenism is not acknowledged by women directors.

Another major problem observed in the Italian context, and frequently encountered in many other countries, is that several companies, even listed companies, are family firms, where the presence of women on boards can be often due to family ties (Minguez-Vera and Matin, 2010; ACCA Pakistan, 2010; Ararat et al., 2010). To avoid this problem, in this study we decided also to consider the percentage of independent female directors on boards.

Italian literature on this topic is still rather scarce. There are few contributions on board diversity in Italian companies, mainly because the presence of female directors in boardrooms is lower than in other countries. Recently, a professional association – Valore D, donne al vertice per l’azienda di domani – studied the role of women in the Italian market, promoting different research projects on this issue. One of the most important is the study conducted by Cerved (2009) on all Italian firms,

listed or otherwise. The results highlight that, in Italy, the number of women in top positions is very low and usually women head up small firms; the presence of female directors is, however, lower in companies in crisis.

From this perspective, this paper tests four different hypotheses:

H₁: A positive relationship exists between gender diversity on boards and firm performance;

H₂: A negative relationship exists between gender diversity on boards and firm risk;

H₃: A positive relationship exists between the presence of foreign directors on boards and firm performance;

H₄: A negative relationship exists between the presence of foreign directors on boards and firm risk.

3. Sample and methodology

In this study we used a sample consisting of 246 companies listed on the Italian stock exchange in the period 2006-2008. With reference to these companies, we measured, through a panel data regression model, the ability of board diversity (measured in terms of ethnic and gender representation on boards) to affect firm performance and firm risk.

In contrast with previous literature, we proxy firm performance by means of price to book value. This ratio has been shown in literature to correlate strongly with Tobin's q, the theoretical standard for measuring intangible assets (Villalonga, 2004). For this reason price to book value is useful for evaluating the contribution made by gender diversity (considered as an intangible asset) to market performance. In addition to the independent and dependent variables, we used some control variables, according to previous literature (Adams and Ferreira, 2009; Lückerath-Rovers, 2010; Erhart et al., 2003; Ararat et al., 2010; Marimuthu, 2008).

The variables were selected for each of the companies in the sample, with reference to the years 2006 (163 observations), 2007 (244 observations), and 2008 (229 observations), for a total of 636 observations.

The first analysis we carried out focuses on the possible connection between board diversity and financial performance (1):

$$PBV_{i,t} = \alpha_1 + \beta_1 * FEM_COM_{i,t} + \beta_2 * FEM_BOARD_{i,t} + \beta_3 * FEM_IND_{i,t} + \beta_4 * MIN_BOARD_{i,t} + \beta_5 * SIZE_{i,t} + \beta_6 * RISK_{i,t} + \beta_7 * CASH_{i,t} + \beta_8 * ROE_{i,t} + \beta_9 * ROA_{i,t} + \beta_{10} * LEVERAGE_{i,t} +$$

$$+ \beta_{11} * DIV_{i,t} + \varepsilon \quad (1)$$

where $PBV_{i,t}$ is the price to book value for firm i in year t , t is the year 2006, 2007 or 2008, α_1 is a constant, $FEM_COM_{i,t}$ is the number of women in the audit committee for company i in year t , $FEM_BOARD_{i,t}$ is the percentage of women on the board of directors for company i in year t , $FEM_IND_{i,t}$ is the percentage of independent women on the board of directors for company i in year t , $MIN_BOARD_{i,t}$ is the percentage of foreign directors on the board for company i in year t , $SIZE_{i,t}$ is the natural logarithm of market capitalization for company i in year t , $RISK_{i,t}$ is the standard deviation of annual returns for company i in year t , $CASH_{i,t}$ is the ratio between liquidity and firm value for company i in year t , $ROE_{i,t}$ is the return on equity ratio for company i in year t , $ROA_{i,t}$ is the return on asset ratio for company i in year t , $LEVERAGE_{i,t}$ is the book debt to equity ratio for company i in year t , $DIV_{i,t}$ is the payout ratio for company i in year t .

Diversity representation was obtained from company corporate governance annual reports, while financial data were obtained from the Bloomberg database .

The second analysis we carried out focuses on the possible linkage between board diversity and firm risk (2):

$$\begin{aligned} BETA_{i,t} = & \alpha_1 + \beta_1 * FEM_COM_{i,t} + \beta_2 * FEM_BOARD_{i,t} + \beta_3 * FEM_IND_{i,t} + \beta_4 * MIN_BOARD_{i,t} + \\ & + \beta_5 * SIZE_{i,t} + \beta_6 * RISK_{i,t} + \beta_7 * DIV_{i,t} + \beta_8 * PE_{i,t} + \beta_9 * PBV_{i,t} + \beta_{10} * ROE_{i,t} + \beta_{10} * ROA_{i,t} + \\ & + \beta_{11} * LEVERAGE_{i,t} + \varepsilon \end{aligned} \quad (2)$$

where $BETA_{i,t}$ is the systematic risk for firm i in year t , t is the year 2006, 2007 or 2008, α_1 is a constant, $FEM_COM_{i,t}$ is the number of women in the audit committee for company i in year t , $FEM_BOARD_{i,t}$ is the percentage of women on the board of directors for company i in year t , $FEM_IND_{i,t}$ is the percentage of independent women on the board of directors for company i in year t , $MIN_BOARD_{i,t}$ is the percentage of foreign directors on the board for company i in year t , $SIZE_{i,t}$ is the natural logarithm of market capitalization for company i in year t , $RISK_{i,t}$ is the standard deviation of annual returns for company i in year t , $DIV_{i,t}$ is the payout ratio for company i in year t , $PE_{i,t}$ is the price-earning for company i in year t , $PBV_{i,t}$ is the price to book value for firm i in year t , $ROE_{i,t}$ is the return on equity ratio for company i in year t , $ROA_{i,t}$ is the return on asset ratio for company i in year t , $LEVERAGE_{i,t}$ is the book debt to equity ratio for company i in year t .

All statistical analyses were performed using the software Gretl.

Table 1 summarizes the descriptive statistics of the variables used in the analysis of the sample. Table 1 shows the mean, median, minimum and maximum value, standard deviation, asymmetry, and kurtosis of the variables used in equations (1) and (2).

Table 1
Descriptive statistics

Variable	Mean	Median	Minimum	Maximum	Std.Dev.	Asymmetry	Kurtosis
FEM_COM	0.080	0.000	0.000	1.000	0.272	3.087	7.529
FEM_BOARD	5.22%	0.00%	0.00%	50.00%	0.075	1.775	4.389
FEM_IND	0.95%	0.00%	0.00%	25.00%	0.031	3.538	13.300
MIN_BOARD	4.06%	0.00%	0.00%	57.14%	0.092	2.693	7.295
SIZE	6.158	5.915	3.463	11.520	1.659	0.826	0.453
RISK	31.58%	29.02%	10.71%	153.82%	0.139	2.059	10.493
BETA	1.140	1.097	0.049	3.258	0.518	0.519	0.853
CASH	8.86%	5.13%	0.00%	77.83%	0.117	2.993	10.828
DIV	169.58%	30.58%	0.00%	281.14%	17.515	15.709	247.694
PE	35.938	17.769	1.509	200.000	49.052	2.544	5.348
PBV	2.713	1.964	0.393	20.000	2.770	3.755	17.705
ROE	8.60%	9.56%	-100.00%	79.44%	0.176	-2.245	13.659
ROA	7.30%	5.99%	-100.00%	100.00%	0.145	1.018	20.128
LEVERAGE	162.77%	83.20%	0.00%	1.418.25%	2.265	2.898	9.888

Table 1 presents the descriptive statistics of the variables used in the analysis: the number of women in the audit committee (FEM_COM), percentage of women on the board of directors (FEM_BOARD), percentage of independent women on the board of directors (FEM_IND), percentage of foreign directors on the board (MIN_BOARD), natural logarithm of market capitalization (SIZE), standard deviation of annual returns (RISK), systematic risk (BETA), ratio between liquidity and firm value (CASH), payout ratio (DIV), price-

earnings ratio (PE), price to book value (PBV), return on equity ratio (ROE), return on asset ratio (ROA) and book debt to equity ratio (LEVERAGE).

Before proceeding with the empirical study, we check the correlation between the independent variables used in the survey. Our analysis of these correlations seems to support the hypothesis that each independent variable has its own particular informative value in the ability to explain beta and price to book value (Table 2).

Table 2
Table of correlations

	FEM_ COM	FEM_ BOARD	FEM_ IND	MIN_ BOARD	SIZE	RISK	CASH	DIV	PE	ROE	ROA	LEVERAGE
FEM_COM	1											
FEM_BOARD	0.3707	1										
FEM_IND	0.5193	0.2755	1									
MIN_BOARD	0.0582	-0.0693	0.1228	1								
SIZE	-0.0100	-0.1484	0.0956	0.2385	1							
RISK	0.0157	-0.0074	-0.0133	-0.0078	-0.3207	1						
CASH	0.0555	0.0529	0.0010	-0.0638	-0.1453	0.1113	1					
DIV	-0.0209	0.1475	-0.0197	-0.0318	-0.0349	-0.0316	0.1276	1				
PE	-0.0046	-0.0053	0.0312	-0.0081	-0.2495	0.1674	0.0143	0.2456	1			
ROE	0.0048	-0.0064	-0.0204	0.0700	0.2853	-0.1701	0.0098	-0.0952	-0.4397	1		
ROA	0.0005	0.1071	-0.0514	0.0044	0.1591	-0.1011	0.0628	0.4359	-0.1369	0.5875	1	
LEVERAGE	0.0187	-0.0577	0.0429	0.0346	0.1840	-0.0202	-0.2241	-0.0401	-0.1171	-0.1513	-0.1874	1

Table 2 shows the correlations between the independent variables considered in the regressions: number of women in the audit committee (FEM_COM), percentage of women on the board of directors (FEM_BOARD), percentage of independent women on the board of directors (FEM_IND), percentage of foreign directors on the board (MIN_BOARD), natural logarithm of market capitalization (SIZE), standard deviation of annual returns (RISK), ratio between liquidity and firm value (CASH), payout ratio (DIV), price-earnings ratio (PE), return on equity ratio (ROE), return on asset ratio (ROA) and book debt to equity ratio (LEVERAGE). The significance of the coefficients was calculated at the level of 95%.

4. Results

Equations (1) and (2) were estimated by means of an OLS panel data regression model.

Table 3 presents the results of equation (1), carried out in order to verify the relationship between board diversity and financial performance.

Table 3
PBV regression

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
Const	1.59703***	0.550261	2.9023	0.00390
FEM_COM	0.601107	0.406155	1.4800	0.13964
FEM_BOARD	-0.632632	1.56064	-0.4054	0.68542
FEM_IND	-5.47628	3.68041	-1.4880	0.13753
MIN_BOARD	1.25587	0.978832	1.2830	0.20020
SIZE	-0.155414**	0.0627295	-2.4775	0.01363
RISK	1.59961*	0.824947	1.9390	0.05318
CASH	-3.77073***	0.949822	-3.9699	0.00008
ROE	8.52391***	1.11454	7.6479	<0.00001
ROA	3.6942***	1.26904	2.9110	0.00380
LEVERAGE	0.17053***	0.0491713	3.4681	0.00058
DIV	-0.0011837	0.00790915	-0.1497	0.88110
R-squared		0.319060		
Adjusted R-squared		0.300924		

Table 3 presents the results of the regression on the relationship between board diversity and financial performance. The sample is composed of 636 observations. One, two, or three asterisks represent the significance of the coefficients, i.e., the rejection of the hypothesis of nullity of the coefficient, with a level of probability of 10%, 5%, and 1%, respectively.

The adjusted R-squared for the regression is 0.301, which indicates that the equation is reliable. All the control variables (except for payout ratio) are significant at the 1%, 5% and 10% level. In particular, companies with high financial performance prove to be smaller in size but to have higher profitability, as suggested by previous studies (Adams and Ferreira, 2009; Dobbin and Jung, 2011;

Carter et al., 2007), higher leverage and higher standard deviation in accordance with Gul et al. (2011), but in contrast with some previous literature (Campbell and Minguez-Vera, 2007; Ararat et al., 2010).

Board diversity shows no statistically significant link with financial performance. This result is consistent with the findings on the relationship between board diversity and economic-financial performance previously discussed (Franconeur et al., 2007; Marinova et al., 2010; Dobbin e Jung, 2011; Rose, 2007). Moreover, the presence of foreign directors on boards shows no statistically significant relationship with financial performance, in contrast with Richard (2000) and Marimuthu (2008).

In light of these results, hypotheses 1 and 2 are rejected.

Table 4 presents the results of equation (2), carried out in order to verify the relationship between board diversity and enterprise risk.

Table 4
BETA regression

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
Const	-0.5071***	0.121614	-4.1698	0.00004
FEM_COM	-0.102364	0.0866422	-1.1815	0.23822
FEM_BOARD	0.195726	0.350675	0.5581	0.57710
FEM_IND	0.394298	0.765988	0.5148	0.60705
MIN_BOARD	-0.416187*	0.223905	-1.8588	0.06390
SIZE	0.125717***	0.013725	9.1597	<0.00001
RISK	2.48481***	0.204887	12.1277	<0.00001
DIV	-0.00214389	0.00172065	-1.2460	0.21361
PE	0.000463328	0.00062	0.7473	0.45538
PBV	-0.0121211	0.0149062	-0.8132	0.41668
ROE	0.50084	0.313212	1.5990	0.11071
ROA	0.473956*	0.275383	1.7211	0.08612
LEVERAGE	0.0389664***	0.010762	3.6207	0.00034
R-squared		0.419392		
Adjusted R-squared		0.399485		

Table 4 presents the results of the regression on the relationship between board diversity and enterprise risk. The sample is composed of 636 observations. One, two, or three asterisks represent the significance of the coefficients, i.e., the rejection of the hypothesis of nullity of the coefficient, with a level of probability of 10%, 5%, and 1%, respectively.

These results show no statistically significant relationship between the presence of women on the board and firm risk. This evidence is in contrast with several studies that identify a negative relationship between number of women directors and firm risk (Gulamhussen and Forte Santa, 2010; Minguez-Vera and Maritin, 2010). Also in this case, this result can be explained by the low presence of females in top positions in Italian firms.

In light of these results, hypothesis 3 is rejected.

The results in Table 4 show that the percentage of foreign directors on the board has a significant negative relationship with firm risk. It means that companies with a high presence of foreign directors show lower systematic risk. For this reason, hypothesis 4 is accepted.

The adjusted R-squared for the regression is 0.399, which indicates that the equation is reliable. Some of the control variables (firm size, standard deviation, return on asset and leverage) show a statistically significant link with beta, as in Dobbing and Jung (2011).

5. Conclusions

This study analyses the relationship between board diversity, firm performance and risk. Board diversity is represented by the presence of both women and foreign directors on boards.

The basic research rationale comes from the new legislation issued by the Italian Government in 2011, according to which by the year 2012 at least one-fifth of the boards of listed companies shall be composed of women. Moreover, we considered that board composition, in terms of skills, attitudes and cultural models can positively affect the quality of the decision-making process in the boardroom and enhance the monitoring capability of the board. In this paper we add to the existing literature by investigating gender diversity on Italian boards and the impact of board members' nationality on risk and performance.

We analyzed a sample of Italian listed companies. Notwithstanding the findings of previous literature, our results show no statistically significant relationship between the presence of female directors and firm performance and risk. Such evidence can be explained considering that in Italy the number of women directors is still lower than in other European countries (and we consider this to be the main limitation of our study), but this is probably destined to change after the recent

legislation on the subject of gender quotas. For this reason, the ambiguity existing regarding the benefits of board gender diversity should not affect the ongoing trend.

In this context, it would be interesting to analyze the relationship between these variables when the number of women on boards has grown.

With regard to the other aspect of board diversity, the presence of foreign directors has no impact on firm performance, but a significant impact on firm risk. This can be explained by the different background and education that directors have accrued from different realities, confirming the relevance of a heterogeneous skill mix in boards of directors, that can bring benefits to stakeholders and to the stability of the whole domestic financial system.

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