

Article

Women on Boards and Financial Performance: Evidence from a European Emerging Market

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Abstract: This paper examines the association between gender diversity on corporate boards and firm performance for a European emerging market, which lags behind in terms of both corporate governance quality and social cohesion indicators. In a sample of Romanian companies listed on BSE (Bucharest Stock Exchange) during 2012–2016, this study confirms previous concerns related to the endogeneity of gender diversity variables in firm performance regression analysis and shows that, on average, diversity has no significant impact on firm-performance. However, based on a sub-sample analysis, results show a robust association in the case of profit-firms and those listed on the Standard tier. As losses can be construed as a distortion factor and Standard tier companies are the smallest and less well governed on the market, the results could be taken to suggest that Romanian listed companies do benefit from increasing gender diversity in the boardrooms, which could complement their rather poor corporate governance practices. Overall, the paper concludes that, in the context of an emerging market, policies aimed at increasing gender diversity in the boards appear to be financially viable and even beneficial for the major part of listed companies, balancing successfully the social cohesion and economic components of sustainable development.

Keywords: gender; diversity; board of directors; financial performance; emerging markets; sustainable development

1. Introduction

The issue of equal opportunities for women and their role in sustainable economic development has become a topic of frequent discussion in the political environment—at a local level, as well as within international organizations. The United Nations adopted in September 2015 a resolution on the world sustainable development over the next 15 years in which gender equality is among the goals of global sustainable development [1]. This document shows there is a world-wide consensus that women participation at all levels of decision-making is one of the prerequisites for achieving global sustainable development.

Promoting gender diversity policies raises complex issues, particularly in the business sphere, where the need for their financial sustainability is more poignant. Increasing the number of women involved in managerial decisions should not penalize companies but preferably enhance their financial performance, which could materialize in corporate incentives rather than legal/political constraints. However, there is yet to be a consensus reached in the literature on the relationship between gender diversity in decision-making and corporate financial performance, as mixed results have been reported and methodological issues have been raised [2]. The circumstances are all the more problematic for emerging countries, which usually rank low in gender diversity-related statistics and for which the relationship with financial performance is far from being elucidated.

In this context, an interesting research setting is the European Union (EU), which proposed a directive in 2012 [3] to increase gender equality in the boards of listed companies, so that at least 40% of the non-executive directors of listed companies are women by the latest January 2020. Although the directive has been disputed and not yet approved, the European Commission (EC) continues to keep the topic on its agenda [4] and the questions on the economic consequences of such a decision remain ever so relevant. In the (EU), equality between women and men is defined as a fundamental right and principle within the EU Treaty [5] and the EU Charter of Fundamental Rights [6], and the EU strategy for equality between women and men also includes *equality in decision making* [7]. The European Commission pursues and encourages the promotion of a higher proportion of women in leadership positions to ensure a balanced ratio between women and men. Many EU member states have enacted regulations that require or recommend companies to apply gender diversity policies to boards of directors. Thus, some countries (e.g., Spain, France, Belgium, Italy, Germany) have enacted mandatory women's quota on the boards of listed companies [8] or on the boards of state-owned companies (e.g., Austria, Greece, Finland, Poland). Some countries (e.g., Austria, Belgium, Denmark, France, Germany, Italy, The Netherlands, Poland, Romania, Slovenia) have prescriptions in their corporate governance codes that recommend the implementation of good practices for gender diversity on the boards of directors, while others (e.g., Denmark) have disclosure requirements on boards gender diversity policies [9].

Although, over the last period, there have been various political and legislative actions (both at EU and member states level) on the issue, there is not yet a gender balance in what concerns leading decisions in economic, political and social life. The analysis of the presence of women in the different forms and leadership structures of European companies in the period 2010–2016 indicates their poor representation [10], yet in recent decades, women's involvement seems to have increased. EC monitoring [11] of women's presence in the leadership of listed companies highlighted the fact that men significantly outnumber women but there is a positive trend in the share of women on the board of directors. In 2003 women represented only 8.5%, in 2010 the share of women was 11.9%, 16.6% in 2013, 23.3% in 2016 [10] and the target expected for 2020 is 40% [11]. In countries such as France, Italy, the Netherlands, Great Britain, Germany and Denmark, the share of women was between 37.1% and 27% in 2016, rising above the European average, the most significant increases between 2010 and 2016 being registered by Italy, France, Belgium, Germany (countries that have imposed mandatory quotas). At the opposite end, there are countries such as Hungary, the Czech Republic, Cyprus, Romania, Malta with values ranging from 11.2% to 5% [11].

However, such smaller, less developed countries could benefit the most if gender diversity policies are imposed in the EU. Recent studies [2,12] that address methodological issues affecting previous research on the topic (e.g., the endogeneity of gender diversity variables) tend to indicate that increasing the number of women on boards is beneficial for smaller, less well governed firms, where weak corporate governance systems could be complemented by female directors' traits (e.g., tendency to avoid antagonism, dedication to monitoring etc.). Consequently, emerging markets (particularly those pertaining to the EU, where enforcement of mandatory quotas is to be expected) appear to be interesting research settings, as they are reported to possess poor corporate governance mechanisms.

In this context, this paper aims to explore the relationship between gender diversity and corporate performance within one of the EU emerging countries: Romania, which struggles to keep pace with the developed European member states in terms of governance and sustainable development indicators, having as a strategic objective reaching the current average level registered by EU countries on key sustainable development metrics by 2020 [13]. This research setting provides an opportunity to observe the extent to which results documented for developed markets [2,12] extend to emerging ones, which could be relevant for similar jurisdictions aiming to implement gender diversity policies.

The remainder of the paper is organized as follows. The second section reviews the literature and discusses the mixed results reported on the relationship between the gender diversity of the boards of directors and corporate performance. The third section describes the sample structure, variables

chosen and the model, whereas the fourth presents and discusses research result. Section 5 summarizes and concludes the research.

2. Literature Review

In the context of companies being required or encouraged to promote gender diversity on their boards [11], research exploring the linkage between gender diversity on the boards of directors and companies' performance began to proliferate. The arguments that support such a relationship are varied. Galbreath [14] shows that there is a literature suggesting that greater gender diversity in corporate boards would "raise the confidence of investors, who expect increasing accountability, transparency and moral duty from firms' directors" (p. 21). Some research also suggests that the presence of women on boards ensures that codes of ethics are more effectively enforced promoting ethical behaviour that provides protection against abusive use of investors' capital [14] (p. 21). From a different perspective, some studies provide empirical data showing that improving gender diversity of the boards could improve corporate governance as female directors can help mitigate fraud [15].

Following the rationale, many studies showed that, on average, firms with female directors on boards perform better. For instance, for the period 2004–2008, a significant difference in performance was documented for Fortune 500 companies featuring at least three women on board [16]. Credit Suisse Research Institute [17] confirmed such results in 2012 based on a sample of 2360 companies included in the MSCI ACWI Index for 2005–2011. On the same note, companies with strong female leadership included in the MSCI World Index in September 2015 had both bigger annual average of financial returns (11.1% versus 7.4%) and price-to-book ratios (1.76 versus 1.56) compared to the rest of the indexed companies [18]. Companies with strong female leadership were construed as firms featuring at least three women on the board of directors, those in which the percentage of female directors exceeded the country average or those having a woman appointed CEO and at least one female director on board.

However, empirical studies investigating the actual link between gender diversity of the boards and companies' performance and which control for other factors that can account for different level of performance, present a more ambiguous picture.

On a sample of 638 American Fortune 1000 companies, after controlling for the size of the companies, sector and corporate governance characteristics, Carter et al. [19] found that there is a significant positive correlation between the presence of women on the boards of directors and the market performance of these companies expressed by Tobin's Q ratio. Erhart et al. [20] focused on the ethnic and gender diversity of the boards of 112 listed Fortune 500 companies for two years (1993 and 1998) and identified a significant positive association between the diversity of the boards of directors and their performance proxied by return on assets (ROA) and return on investment (ROI). Campbell and Minguez-Vera [21] found that for the period 1995–2000, for the 68 non-financial Spanish listed enterprises, gender diversity (proxied by the percentage of women on the board of directors) has a positive effect on financial performance (expressed by Tobin's Q). This finding allows the authors to conclude that Spanish investors do not penalize companies that increase their number of female directors on boards but also that greater gender diversity is likely to generate economic gains. On a sample of large Australian companies, Bonn [22] showed that the proportion of women on boards is positively associated with companies' performance, proxied by return on equity (ROE) and market-to-book value ratio. This conclusion is confirmed by Galbreath [14] on a sample of 151 Australian listed companies, who found that the presence of women on the boards of directors was positively correlated with ROE, ROA and market-to-book value of equity. Also, based on a sample of companies from Kong, South Korea, Malaysia and Singapore, Low et al. [23] state that the increase in the number of female directors has a positive effect on company performance as measured by ROE. Liu et al. [24] documents a positive correlation between gender diversity of the boards and the performance of listed companies in China, measured by return on sales (ROS) and ROA. Gender diversity is proxied both by the percentage of women and their number, the critical mass for a significant positive impact is found to be three or more female directors on board.

Garcia-Meca et al. [25] analysed the relationship between boards' gender diversity and bank performance on a sample of 159 banks from nine countries, for 2004–2010, showing that banks' performance is enhanced by gender diversity. They also show that, in contexts featuring weaker regulations and investor protection, the association between board diversity and banks' performance is less strong.

Based on a sample of US-banks listed during 1994–2006, Amore and Garofalo [26] explored the potential associations between banks' performance and stability and the gender of their executive directors under competitive pressure. The results suggest banks with female executives perform better under low competition but experience lower financial performance under increasing competition. However, under competitive pressure, female directors also seem to bring about superior bank stability, while male-leadership seems to exacerbate risk.

Other studies suggest that the link between the gender structure of the boards of directors and corporate performance is non-existent or even negative. For example, Farrell and Hersch [27] analysed 300 of the Fortune 500 and Service 500 companies for the period 1990–1999 and concluded that in companies with high return on assets (ROA), there are more women appointed on the boards of directors, yet their appointment has no significant influence on firms' performance. Olsen et al. [28] explored the impact of the Norwegian reform concerning the boards' gender diversity, concluding that for the period 2003–2007 its effect on companies' performance was negligible, as changes in ROA or ROS could not be attributed to the reform. Rose [29], after analysing a sample of Danish firms, notes that during the period 1998–2001 there is no significant link between companies' performance (proxied by Tobin Q) and the presence of women on the board of directors. Vu et al. [28] found similar results for a sample of 557 Vietnamese listed firms, the number of female directors having no significant impact on ROA or ROE.

Adams and Ferreira [2] raise methodological issues that could account for the positive association between gender diversity of the boards and financial performance reported in the literature, in particular the endogeneity of gender diversity variables. Endogeneity could be due to omitted variables, firm characteristics, or reverse causality (i.e., simultaneous causation between dependent and independent variables as, for instance, better performing companies could appoint more women on boards, while particular female directors' qualities could increase firm performance) [2,30,31]. Adams and Ferreira [2] argue that the positive relationship between firm performance and gender diversity in the boards, which is often taken for granted, does not pass any of their robustness tests dealing with the endogeneity issue. Based on a sample of 1,939 American listed companies, for the period 1998–2003, Adams and Ferreira [2] found that the appointment of women on boards of directors had actually a negative effect on ROE and Tobin's Q when robustness concerns had been addressed. However, they documented a positive impact on financial performance for companies with weak governance, explained by the fact that board which are more gender-diverse are also more committed to monitoring, providing empirical evidence that female members attend monitoring committees more frequently, compared to their male counter-parts. Adams and Ferreira [2] conclude that, for well-governed companies, introducing mandatory gender quotas could be harmful, as additional monitoring could be counterproductive, resulting in a negative impact on shareholders' value.

Recent studies seem more concerned with robustness issues and there are more reports on the lack of association between gender diversity on the boards of directors and financial performance. Results are, however, still mixed. For instance, Vafaei et al. [31] following Adams and Ferreira's [2] strategy of addressing methodological weaknesses in previous studies, document a significant positive impact of gender-diverse boards of directors on financial performance (proxied by ROA, ROE, Tobin's Q and the ratio of cash flow from operations to total assets) based on a sample of Australian top 500 companies listed during 2005–2011. Pasaribu [12], after controlling for endogeneity, provided for contrary results on a sample of non-financial companies listed on London Stock Exchange during 2004–2012. However, according to a size-based analysis, Pasaribu [12] found that the presence of female directors on boards is positively correlated with financial performance for small companies but not for large ones, which was explained, in a similar manner to Adams and Ferreira [2], based on over-monitoring problems experienced by large companies with strong governance after appointing

female directors but also based on the flexibility small companies have on appointing female directors. Green & Homroy [32] document a positive impact of gender-diversity of the boards on financial performance, after addressing endogeneity issues, for a sample of EuroTop 100 firms for the period 2004–2015, although the economic impact of performance gains is deemed modest.

The ‘controversial’ relationship between gender diversity in boardrooms and companies’ performance is far from being confirmed in emerging markets, although, following Adams and Ferreira’s [2] rationale, such a relationship is to be expected, as weak corporate governance is documented for companies operating on these markets.

For the case of Romania, BERD Country Report [33] (based on a sample of ten largest listed companies) documented the immature state of corporate governance regulations and practices. On a scale from 1 to 5, the structure of the board area was rated ‘fair’ (score 3), with boards generally well-sized but featuring limited gender diversity and only a minority of listed companies having independent directors on their boards.

Similar results were reported on an earlier date by Feleaga et al. [34] on a sample of 15 companies listed on the Premium Tier, focusing on boards’ characteristics: and disclosure. The authors compared the results obtained in other countries and concluded that “most of the companies in the sample do not meet the governance code recommendations regarding the independence of directors and members of the audit committee” and their degree of transparency “is incomparably lower than that of other European firms” (p. 14).

These studies are conducted on small samples comprising larger and better performing companies listed on the Romanian stock market and it is reasonable to presume that the overall quality of corporate governance in Romania is even lower.

The relationship between gender diversity of the boards of directors and financial performance in Romania has been relatively under-researched. Most studies, especially non-academic papers, follow only the evolution of gender diversity in Romanian companies (e.g., [35–37]). There are only a few papers addressing the impact of boards’ gender diversity on corporate performance in Romania, however, they feature a rather simple methodology, such as univariate analysis based on Pearson correlation coefficient for one year and a small sample of firms: 28 Romanian banks for 2014 [38] and 60 listed companies in 2014 [39]. Deloitte [40] has a more sophisticated approach, analyzing the possible association between gender diversity on boards and performance of Romanian companies listed during 2009–2015, based on a logistic regression. However, the analysis lacks control variables used in the academic literature and does not take into account robustness issues reported in scientific journals (e.g., [2]). Consequently, although these studies tend to indicate a positive association, we believe further research is required for obtaining conclusive results. It is the purpose of this paper, to further investigate the issue, taking into account the methodological exigencies of the relevant academic literature, in order to provide a clearer picture on the gender diversity practices of Romanian listed companies and their impact on corporate sustainable development.

3. Research Methodology

The population for this study comprised all companies listed on the BSE in the last five years (2012–2016) on both the Premium and Standard tiers. The period was chosen in order to ensure comparability of financial data, Romanian listed companies being mandatorily required to apply International Financial Reporting Standards (IFRS) in individual accounts starting in 2012.

Out of the 388 firm-year observations, missing gender diversity and financial data reduced our population to 343 firm-year observations. The remaining sample contains 71.1% companies listed on the Standard tier and 23.9% loss-firms, with financial and manufacturing companies being the most represented (15.2% and 53.9% respectively), which is characteristic for BSE (Table 1). The sources of data include Thomson Financials database and BSE website for financial information, as well as listed companies’ websites for information on gender diversity. Cross-checks were performed to ensure data accuracy.

Table 1. Sample composition (panel data).

Firm-Year Observations	
Companies listed on the BSE (2012–2016)	388
Less missing gender diversity data	(36)
Less missing financial data	(9)
Total	343
Tier	
Premium	28.9%
Standard	71.1%
Performance	
Profit firms	76.1%
Loss firms	23.9%
Industry	
Accommodation and food service activities	5.8%
Construction	4.4%
Electricity, gas, steam and air conditioning supply	3.5%
Financial and insurance activities	15.2%
Human health and social work activities	0.3%
Manufacturing	53.9%
Mining and quarrying	4.7%
Professional, scientific and technical activities	0.9%
Transportation and storage	5.5%
Wholesale and retail trade	5.8%

Following previous literature (e.g., [31,41]), we have used both market-based and accounting-based measures of performance to enhance results reliability. The market-based variables we employ are market to book value of equity and Tobin's Q and they are expected to capture the perceptions of market participants on the present and future performance of the companies. We also use return on assets (ROA) as an accountancy-based variable, this type of variables being presumed to offer more 'objective' indication of the companies' recent past and present performance.

We also use two proxies for gender diversity: the proportion of female members on the board (DivProp) and a dummy variable depicting the presence of a female president of the board (DivPres). The interaction between the presence of a female president and the boards' gender composition was also explored.

A set of control variables was taken into account, as it was suggested ([21,31,42]) that the existent inconclusive evidence on the role played by gender diversity is due to the omission of other factors that can explain financial performance. We follow Vafaei et al. [31] and control for the size of the companies and of the boards of directors, firms' leverage and listing age. We also use assets in place as an inverse growth indicator. Board members' independence could not be taken into account due to the very small number of Romanian listed companies having independent members on board and accurately reporting on their corporate governance practices. Tukey's model with a 2.2 multiplier [43] was employed for outliers identification and data was winsorized by the nearest unsuspected value by year.

Given the relatively weak corporate governance systems in Romanian and the recent results documenting a positive impact of female directors on financial performance in such corporate environments, we posit that:

Hypothesis 1. *Financial performance is higher for Romanian listed companies featuring more gender diverse boards of directors.*

The hypothesis was tested based on the following regression model:

$$\begin{aligned}
 Performance_{ij} = & \alpha_0 + \alpha_1 x Diversity_{ij} + \alpha_2 x FirmSize_{ij} + \alpha_3 x BoardSize_{ij} \\
 & + \alpha_4 x ListingAge_{ij} + \alpha_5 x Leverage_{ij} + \alpha_6 x AssetsInPlace_{ij} \\
 & + \alpha_7 x IndustryDummy_{ij} + \alpha_8 x YearDummy_{ij} + \varepsilon_{ij}
 \end{aligned}
 \tag{1}$$

where:

Performance_{ij}—proxied by ROA_{ij}, MarketToBook_{ij} and Tobin's Q_{ij}:

ROA_{ij}—Ratio of net income to total assets;

MarketToBook_{ij}—Ratio of market capitalization to book value of equity;

Tobin's Q_{ij}—ratio between the sum of the market value of equity and book value of liabilities and the sum of the book value of equity and liabilities;

Diversity_{ij}—stands for different measures of gender diversity:

DivProp_{ij}—Proportion of female members on board;

DivPres_{ij}—Dummy variable equal to 1 if the company has a woman president of the board and 0 otherwise;

DivProp_{ij}*DivPres_{ij}—Combined effect of the proportion of female members on board and the company having a woman president of the board;

FirmSize_{ij}—Natural logarithm of the market capitalization;

BoardSize_{ij}—Natural logarithm of the number of board members;

ListingAge_{ij}—Natural logarithm of the company's listing age;

Leverage_{ij}—Ratio of debt to total assets;

AssetsInPlace_{ij}—Ratio of total inventory, property, plant and equipment to total assets;

YearsDummy and IndustryDummy—Dummy variables for years and industries to control for fixed effects.

4. Results and Discussion

Descriptive statistics are presented in Table 2. The board size ranges from a minimum of 1 to a maximum of 11 members, with a mean of 5.04. Within the boards, the proportion of female members ranges from zero to a maximum of 67% and a mean of 16%, 4 female directors being the largest number of women on board. The newest companies in our samples are those recently listed (1 year old) and the oldest ones are those enduring from the communist era, which were listed directly after 1990, when the BSE was reopened (22 years old). The average listing age of the companies included in our sample is 11.26 years.

Table 3 describes the gender structure of the boards for companies listed at BSE across time and types of firms. The presence of women on boards appears stable throughout the period investigated with around half of the companies featuring all-male board of directors, the more gender diverse boards having only one or two female members on board.

Table 2. Descriptive Statistics.

Variables	N	Minimum	Maximum	Mean	Median	Std. Deviation
ROA	387	−1.47	2.78	0.01	0.02	0.20
Market to Book Value	384	−8.43	25.84	0.65	0.55	1.65
Tobin's Q	384	0.12	4.24	0.94	0.80	0.57
Percentage of women on board	356	0	0.67	0.16	0	0.20
Number of women on board	356	0	4	0.77	0	1.67
Board Size	352	1	11	5.04	5.00	1.70
Firm Age	388	1	22	11.26	11.00	6.12
Leverage	387	0.00	1.56	0.19	0.08	0.26
Total Assets (RON, millions)	387	11.49	5,1816.43	2637.05	208.54	8490.88
Ln (Assets)	387	2.44	10.86	5.70	5.34	1.82
Market Capitalization (RON, millions)	384	1.64	26,611.31	943.24	56.53	3049.62
Ln (Market Capitalization)	384	0.24	10.19	3.72	3.52	2.31
Assets in Place	387	0.00	1.02	0.53	0.59	0.28
Valid N (listwise)	343					

Table 3. Gender diversity in the boardrooms across time and types of companies.

Sample characteristics	N	Proportion of Companies with Women President of the Board	Proportion of Board Female Members to Total Board Members	Percentage of Companies with No Female Members on Board	Percentage of Companies with One Female Member on Board	Percentage of Companies with Two Female Members on Board	Percentage of Companies with Three or More Female Members on Board
Year							
2012	65	3.1%	13.9%	50.8%	30.8%	16.9%	1.5%
2013	69	7.2%	16.4%	46.4%	31.9%	14.5%	7.2%
2014	69	8.7%	15.0%	49.3%	30.4%	15.9%	4.4%
2015	70	5.7%	16.0%	50.0%	27.1%	17.1%	5.8%
2016	70	7.1%	15.3%	52.9%	22.9%	18.5%	5.7%
Tier							
Premium	99	9.1%	14.8%	43.4%	25.3%	23.2%	8.1%
Standard	244	5.3%	15.7%	52.5%	29.9%	13.9%	3.7%
Performance							
Profit firms	261	6.9%	14.9%	50.2%	27.6%	18.0%	4.2%
Loss firms	82	4.9%	16.8%	48.8%	31.7%	12.2%	7.3%
Industry							
Accommodation and food service activities	20	5%	22.9%	50.0%	20.0%	15%	15%
Construction	15	26.7%	23.0%	46.7%	20.0%	26.7%	6.7%
Electricity, gas, steam and air conditioning supply	12	33.3%	20.5%	25.0%	16.7%	58.3%	0.0%
Financial and insurance activities	52	0.0%	9.1%	57.7%	26.9%	13.5%	1.9%
Human health and social work activities	1	14.3%	0%	0%	100%	0.0%	0.0%
Manufacturing	185	4.9%	15.4%	55.1%	25.4%	15.1%	4.3%
Mining and quarrying	16	18.8%	14.2%	50.0%	25%	12.5%	13.0%
Professional, scientific and technical activities	3	0.0%	29.4%	0.0%	66.7%	0.0%	33.3%
Transportation and storage	19	5.3%	14.0%	52.6%	15.8%	26.3%	5.3%
Wholesale and retail trade	20	0.0%	22.5%	5.0%	90.0%	5.0%	0%

There is also no material difference in terms of gender diversity between companies listed on the Standard or Premium tier, or profit or loss firms (untabulated comparisons of the means for DivProp, *t* test—tier: 0.450, *p* = 0.653; profit/loss: 0.670, *p* = 0.503). However, there seem to be significant differences across industries, the most notable one being registered for the financial sector, financial and insurance companies having one of the lowest numbers of female directors on board (9.1%) with 57.7% of firms having all-male boards. Similar results were reported for other European countries (e.g., Germany [44]) Financial entities have also no women acting as president of the board of directors, a feature shared with the wholesale and retail trade industry. However, the latter industry has rather good gender diversity measures with 22.5% female members on boards and only 5% of the companies having all-male boards of directors. Other companies that seem to score well on gender diversity measures are operating in the electricity and gas sector, where women are more likely to be appointed presidents of the boards (33.3%) and claim membership in the boards of directors (20.5% of board members are women and only 25% of the companies have no women on boards).

Table 4 presents the comparison of the means for companies with or without women on boards of directors. Based on the *t*-test results, it appears that there are no great differences between the groups with the exception of size and one performance measure (i.e., market to book value). Contrary to previous results (e.g., [31]), Romanian listed companies with women on boards are smaller (in terms of assets: RON 1691.54 million and market capitalization: RON 640.27) compared with companies featuring all-male boards of directors (assets: RON 4158.66 million: and market capitalization: RON 1442.11). However, they seem to perform better in market estimations, the market to book value for companies featuring more gender diverse boards of directors having a mean value of 0.77 compared to 0.52 registered for companies with no female members on board.

Table 4. Comparison of the means.

Variables	Average	Average	<i>t</i> Test
	Companies without Female Members on Board	Companies with Female Members on Board	
ROA	0.02	0.01	0.59
MarketToBook	0.52	0.77	−2.19 **
Tobin's Q	0.85	0.88	−0.80
Board Size	4.95	5.12	−0.90
Firm Listing Age	11.37	10.54	1.25
Leverage	0.18	0.14	1.69 *
Total Assets (RON, millions)	4158.66	1691.54	2.56 **
Market Capitalization (RON, millions)	1442.11	640.27	2.32 **
Assets in Place	0.53	0.52	0.35

Significance levels: **** 0.001, *** 0.01, ** 0.05, * 0.1.

Regression analysis is performed in three steps. First Panel OLS regressions are run for each of the four dependent variables and then year and industry dummies are included to control for fixed effects. In the third stage, we test for endogeneity of the gender diversity variables across all models (both before and after controlling for fixed effects) and perform second stage regressions (2SLS) in the case of endogenous variables. Overall, some of the performance measures appear to be significantly correlated with some of the gender diversity variables, especially after controlling for fixed effects (DivProp correlated with MarketToBook; DivPres and DivProp*DivPres correlated with ROA, MarketToBook and Tobin's Q). However, after further controlling for endogeneity, the association is rendered insignificant. To economize on space, we report results only for two measures of financial performance: one accountancy-based (ROA) and one market-based (MarketToBook).

Table 5 shows the regression estimates for the models including the first proposed measure of gender diversity: proportion of women on boards (DivProp). Contrary to our expectations, statistical evidence only supports a positive correlation between board diversity and a measure of firm performance: market to book value of equity. For Romanian listed companies, women on

boards do not appear to have a significant contribution in driving accounting performance, yet more diverse boards seem to have a positive impact on the subjective perspective of the market participants. These results could be explained by the role played by women on boards, as one of the essential roles of the boards is to mitigate conflict between shareholders and managers ([2,45]) and women's proclivity to avoid and attenuate conflict could be expected to increase shareholder value. Women on boards could also be perceived as a sign of good corporate governance and thus positively impact market's expectations for companies' future performance.

Table 5. Proportion of women on boards and firm performance.

Independent Variables	Dependent Variable: ROA			Dependent Variable: Market to Book		
	Panel OLS	Panel OLS Fixed Effects	Panel OLS	Panel 2SLS Second Stage	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects
Intercept	0.015 [0.807]	−0.014 [−0.641]	0.821 *** [50.471]	10.080 *** [50.175]	0.482 *** [20.697]	0.573 *** [20.610]
DivProp	0.003 [0.187]	0.002 [0.151]	0.206 * [10.692]	−0.625 [−10.394]	0.233 ** [10.996]	−0.037 [−0.094]
Board Size	−0.013 [−1.180]	0.003 [0.283]	0.001 [0.011]	−0.033 [−0.352]	0.080 [0.921]	0.075 [0.843]
Firm Age	0.002 [.486]	−0.001 [−.339]	−0.082 *** [−2.795]	−0.090 *** [−2.837]	−0.100 *** [−3.471]	−0.101 *** [−3.467]
Leverage	−0.115 *** [−7.421]	−0.113 *** [−7.649]	−0.641 *** [−5.078]	−0.766 *** [−5.127]	−0.763 *** [−6.083]	−0.805 *** [−5.786]
Firm Size	0.010 *** [5.224]	0.011 *** [5.930]	0.063 *** [4.105]	0.053 *** [3.068]	0.086 *** [5.469]	0.082 *** [4.954]
Assets in Place	−0.006 [−0.573]	−0.098 *** [−5.970]	−0.400 *** [−4.468]	0.377 *** [−3.913]	−0.570 *** [−4.092]	−0.581 *** [−4.112]
N	343	343	343	343	343	343
F statistic	21.796 ***	12.935 ***	23.545 ***	20.575 ***	11.347 ***	10.956 ***
R ²	0.280	0.432	0.296	0.269	0.365	0.392
Adjusted R ²	0.267	0.399	0.283	0.256	0.400	0.356

Significance levels: **** 0.001, *** 0.01, ** 0.05, * 0.1; [t statistic in parenthesis].

However, these results are not yet conclusive as endogeneity has been previously documented to affect the relationship between board diversity and firm performance (e.g., [2,31]). We employ the Durbin-Wu Hausman test to explore whether gender diversity variable is endogenous. To perform the test, in our original regression models we replaced DivProp with the residuals extracted from regressing DivProp against the control variables. Untabulated results show that the coefficient on DivProp residuals is significant for market to book value models (both before and after controlling for fixed effects), which indicates that these models' original results are unreliable.

To address the issue, previous literature (e.g., [2,30,31]) used instrumental variables (IV) and second stage regressions (2SLS). A valid IV has to be correlated with the endogenous explanatory variable but should have no independent effect on the dependent variable. An IV will allow for uncovering the actual effect of boards diversity on companies' performance, however they are difficult to find ([2,30,46]) as they are usually governance variables already contained within performance regressions models (e.g., size of the company or of the board).

Adams and Ferreira [2] (p. 306) constructed their IVs based on the idea that the lack of connections accounts for the absence of women on boards and observed the "networks that occur because directors sit on multiple boards." A similar rationale has been subsequently applied by Vafaei et al. [31]. For the purpose of this paper, we adopted a different approach, focusing on the type and structure of ownership. We assume women are more likely to be appointed as members of the boards in the case of state owned companies and companies controlled by one or a small number of non-institutional investors, based on ideological grounds or personal or familial ties, respectively. Our proposed IV, Ownership, is strongly correlated with all our gender diversity measures at 0.1% in the first stage and

not correlated with either ROA or Market to Book Value. It is also not endogenous in the explanatory equation, conditional on the other control variables.

Table 5 reports results for the second stage regression analysis, which includes predicted values for board diversity extracted from regressing DivProp against the IV and the control variables. Results obtained in the 2SLS refute our hypothesis, the correlation being no longer significant or even positive.

Among control variables, Leverage is negatively correlated with performance across all models. According to the theory and empirical evidence [47], both positive and negative effects of leverage could be expected. On the one hand, leverage indicates financial distress, which could be costly either in terms of direct expenses (e.g., legal and financial advisory fees) but mostly in terms of indirect costs such as suboptimal investments or unprofitable assets sales and the management's distraction from the core business activities [48–50]. On the other hand, debt could also have a disciplinary role, the scarcity of financial resources orienting firms towards efficiency [51–53]. For companies listed on the Romanian stock market, it seems that the cost of financial distress prevails, leveraged companies performing poorly.

There is also a significant positive association between the size of the companies and both accountancy and market-based measures of performance, which was previously reported for Romanian listed companies (e.g., [54]). Generally, size is positively correlated with performance, although smaller companies were reported to be better performers in other contexts (e.g., Australia [31] or UK [55]). Market participants seem also to appreciate companies recently listed on BSE, listing age being negatively correlated with market-based performance. Assets in place operate as expected as an inverse growth indicator, being negatively correlated with performance across all models.

The lack of a positive correlation between women on boards and firm performance could be explained by the low number of female directors on the boards of Romanian companies which could minimize their influence in the decision-making process. Therefore, our analyses will also explore whether women acting as presidents of the boards could enforce feminine values and impact financial performance.

Table 6 reports results for the regression models including gender diversity measured by DivPres. As it can be observed, one of the accounting-based measures of performance (ROA) becomes significantly correlated with board diversity after controlling for fixed effects, which suggests confirmation for our original assumption, that is, women acting as president of the board having a positive impact on economic performance. The correlation between the new gender diversity measure and market to book value remains positive, however the significance of the association increases, which indicates that the market appreciates better companies with female board presidents. The control variables, generally, exhibit the same direction of association and significance.

We further test for the endogeneity of the gender diversity variable to ensure results validity. Based on the Durbin-Wu Hausman test, DivPres was found to be endogenous across all models which previously revealed a significant positive association with firm performance. 2SLS regressions analysis shows that the association is not significant or even positive.

To further our analyses, we explore whether a concentration of women's values (ethos) can have a positive impact on company performance, that is, we measure board diversity by the interaction between the proportion of women on boards and the boards having female presidents. Yet, we obtain similar results (Table 7). The combined effect of the gender diversity variables on both market-based and accounting-based measures of performance appears to be significant in the first phases of our analysis. However, these results are no longer valid after we control for endogeneity.

Consequently, we could not provide empirical evidence to confirm the hypothesis of this study, as we could not document that Romanian listed companies featuring more gender diverse boards of directors perform better. The results are in line with those reported previously (e.g., [2,12]), which also showed that a significant positive association between gender diversity on the boards of directors and firm performance is not robust. However, the aforementioned studies did document a significant relationship for subsamples of their population: companies with weak corporate governance [2]

and small companies assumed to be poorly governed [12] and to have more flexibility in assigning female directors on the boards. Following the same rationale, we investigate the validity of our hypothesis across types of companies (profit/loss-companies, premium/standard tier listed firms, financial/nonfinancial companies).

Table 6. Female president of the board and firm performance.

Independent Variables	Dependent Variable: ROA			Dependent Variable: Market to Book			
	Panel OLS	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects	Panel OLS	Panel 2SLS Second Stage	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects
Intercept	0.016 [0.880]	−0.021 [−0.993]	0.008 [0.282]	0.884 *** [6.081]	0.889 *** [5.689]	0.533 ** [2.188]	0.819 ** [1.974]
DivPres	0.008 [0.709]	0.026 ** [2.309]	−0.070 [−1.182]	0.138 [1.432]	−0.560 [−1.383]	0.278 *** [2.675]	−0.198 [−0.355]
Board Size	−0.012 [−10.109]	0.006 [0.582]	−0.006 [−0.418]	0.006 [0.072]	−0.0633 [−0.620]	0.101 [0.984]	0.024 [0.169]
Firm Age	0.001 [0.404]	−0.002 [−0.603]	0.001 [0.293]	−0.089 *** [−2.990]	−0.0666 * [−1.945]	−0.113 *** [−3.456]	−0.099 *** [−2.659]
Leverage	−0.114 *** [−7.411]	−0.109 *** [−7.433]	−0.126 *** [−6.565]	−0.652 *** [−5.186]	−0.751 *** [−5.142]	−0.744 *** [−4.842]	−0.827 *** [−4.448]
Firm Size	0.010 *** [5.122]	0.011 *** [5.861]	0.012 *** [5.535]	0.058 *** [3.769]	0.070 *** [3.925]	0.075 *** [4.232]	0.079 *** [4.167]
Assets in Place	−0.008 [−.679]	−0.104 *** [−6.302]	−0.083 *** [−3.743]	−0.417 *** [−4.581]	−0.305 *** [−2.626]	−0.686 *** [−4.180]	−0.572 *** [−2.665]
N	343	343	343	343	343	293	293
F statistic	21.904 ***	13.427 ***	10.788 ***	23.354 ***	20.241 ***	8.620 ***	7.677 ***
R ²	0.281	0.441	0.388	0.294	0.265	0.388	0.361
Adjusted R ²	0.268	0.408	0.352	0.282	0.252	0.343	0.314

Significance levels: **** 0.001, *** 0.01, ** 0.05, * 0.1; [t statistic in parenthesis]

Table 7. Boardrooms governed by women and firm performance.

Independent Variables	Dependent Variable: ROA			Dependent Variable: Market to Book			
	Panel OLS	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects	Panel OLS	Panel 2SLS Second Stage	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects
Intercept	0.015 [0.866]	−0.019 [−0.918]	0.004 [0.139]	0.878 *** [6.071]	0.902 *** [5.643]	0.553 ** [2.316]	0.785 ** [2.293]
DivPres*DivProp	0.022 [0.905]	0.054 ** [2.326]	−0.146 [−1.180]	0.468 ** [2.322]	−1.242 [−1.355]	0.670 *** [3.210]	−0.384 [−0.354]
Board Size	−0.011 [−1.064]	0.007 [.644]	−0.007 [−.518]	0.019 [.221]	−0.079 [−.723]	0.116 [1.129]	0.021 [0.149]
Firm Age	0.001 [0.384]	−0.002 [−0.597]	0.001 [0.281]	−0.091 *** [−3.096]	−0.066 * [−1.859]	−0.114 *** [−3.515]	−0.100 *** [−2.698]
Leverage	−0.114 *** [−7.386]	−0.109 *** [−7.420]	−0.126 *** [−6.509]	−0.639 *** [−5.104]	−0.759 *** [−5.012]	−0.728 *** [−4.755]	−0.830 *** [−4.364]
Firm Size	0.010 *** [5.101]	0.011 *** [5.849]	0.011 *** [5.520] **	0.056 *** [3.686]	0.071 *** [3.840]	0.074 *** [4.186]	0.080 *** [4.119]
Assets in Place	−0.008 [−0.723]	−0.105 *** [−6.345]	−0.080 [−3.323]	−0.433 *** [−4.772]	−0.293 ** [−2.366]	−0.722 *** [−4.389]	−0.561 ** [−2.377]
N	343	343	343	343	343	293	293
F statistic	21.977 ***	13.434 ***	10.753 ***	24.139 ***	19.442 ***	8.870 ***	7.645 ***
R ²	0.282	0.441	0.387	0.301	0.258	0.395	0.360
Adjusted R ²	0.269	0.409	0.351	0.289	0.244	0.350	0.313

Significance levels: **** 0.001, *** 0.01, ** 0.05, * 0.1; [t statistic in parenthesis]

Reiterating previous tests on subsamples, we were able to identify significant and positive associations between gender diversity of the boards (measured by all proposed variables) and firm performance (measured by one market-based measure of performance: Tobin's Q) for profit-firms (Table 8a) and those listed on the standard-tier (Table 8b). The direction and significance of the association persists even after we control for endogeneity across all models.

Particularly in the capital markets field, losses are often excluded from analysis, as they are construed as transient components of earnings, which could be generated by factors exogenous to the

business rather than by managerial decisions [56]. Furthermore, amounts recorded as losses could be overestimated (i.e., big bath accounting), which could distort results. Once loss-firms are eliminated from our sample (Table 8a), gender diversity is robustly correlated with performance as measured by Tobin's Q. This suggests that there is empirical data to support our conjecture, that is, Romanian companies do benefit from increasing gender diversity on boards of directors, as a complement to poor corporate governance systems, which was documented especially in terms of investor relations [33]. Female directors on board are presumed to attenuate conflict between shareholders and managers ([2,45]) and thus positively impact firms' market performance.

Table 8. Gender diversity of the boards and firm performance: evidence for Profit-firms and Standard-tier listed companies.

(a) Profit-Firms		Dependent Variable: Tobin's Q				
Independent Variables	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects
Intercept	0.574 *** [4.206]	0.158 [0.848]	0.636 *** [4.730]	0.534 *** [3.322]	0.629 *** [4.744]	0.551 *** [3.615]
DivProp	0.330 *** [3.501]	0.686 ** [2.123]				
DivPres			0.220 *** [3.012]	0.680 ** [2.087]		
DivPres*DivProp					0.579 *** [3.959]	1.378 ** [2.152]
Board Size	0.077 [1.060]	0.100 [1.310]	0.090 [1.225]	0.168* [1.753]	0.110 [1.498]	0.187* [1.906]
Firm Age	−0.014 [−0.585]	−0.008 [−0.337]	−0.023 [−0.987]	−0.033 [−1.262]	−0.024 [−1.054]	−0.032 [−1.287]
Leverage	0.030 [0.222]	0.176 [1.220]	0.005 [0.035]	0.049 [0.330]	0.017 [0.124]	0.062 [0.426]
Firm Size	0.093 [6.500]	0.088 *** [5.965]	0.091 *** [6.356]	0.094 *** [6.018]	0.091 *** [6.397]	0.091 *** [6.084]
Assets in Place	−0.456 *** [−4.440]	−0.632 *** [−5.617]	−0.485 *** [−4.658]	−0.563 *** [−4.526]	−0.521 *** [−5.025]	−0.622 *** [−4.604]
N	262	262	262	262	262	262
F statistic	9.773 ***	9.567 ***	9.473 ***	7.944 ***	10.095 ***	8.447 ***
R ²	0.405	0.415	0.398	0.356	0.413	0.370
Adjusted R ²	0.364	0.371	0.356	0.311	0.372	0.327
(b) Standard-Tier		Dependent Variable: Tobin's Q				
Intercept	0.399 *** [2.884]	0.254 [1.454]	0.452 *** [3.326]	0.408 *** [2.714]	0.451 *** [3.345]	0.418 *** [2.831]
DivProp	0.204 ** [2.272]	0.649 ** [2.085]				
DivPres			0.179 * [1.924]	0.775 ** [2.013]		
DivPres*DivProp					0.469 *** [2.817]	1.501 ** [2.043]
Board Size	−0.147 ** [−2.124]	−0.126 * [−1.706]	−0.129 * [−1.837]	−0.041 [−0.435]	−0.116 [−1.653]	−0.027 [−0.279]
Firm Age	0.004 [0.179]	0.001 [0.042]	−0.003 [−0.123]	−0.032 [−1.000]	−0.007 [−0.277]	−0.034 [−1.056]
Leverage	0.752 *** [8.365]	0.809 *** [7.924]	0.741 *** [8.251]	0.791 *** [7.718]	0.752 *** [8.436]	0.809 *** [7.769]
Firm Size	0.117 *** [7.644]	0.127 *** [7.262]	0.111 *** [7.294]	0.107 *** [6.392]	0.110 *** [7.301]	0.105 *** [6.355]
Assets in Place	−0.332 *** [−3.058]	−0.316 *** [−2.751]	−0.370 *** [−3.365]	−0.474 *** [−3.486]	−0.400 *** [−3.634]	−0.532 *** [−3.546]
N	244	244	244	244	244	244
F statistic	13.788 ***	12.408 ***	13.616 ***	11.574 ***	14.113 ***	11.914 ***
R ²	0.509	0.483	0.506	0.465	0.515	0.473
Adjusted R ²	0.472	0.444	0.469	0.425	0.478	0.433

Significance levels: **** 0.001, *** 0.01, ** 0.05, * 0.1; [t statistic in parenthesis].

A further confirmation of this rationale is indicated by the significant results obtained in the case of Standard-tier companies, which are smaller than those listed on the Premium tier and susceptible of having weaker corporate governance. For the sub-sample of Standard-tier listed companies the

association between gender diversity of the boards and Tobin's Q is significant even if loss-firms are not eliminated (Table 8b).

If loss-firms are further eliminated from the Standard tier listed companies, in addition to Tobin's Q (Table 9b), one accounting-based measure of performance (ROA) becomes marginally correlated with all our measures of gender diversity in the boardrooms, both before and after we control for endogeneity (Table 9a). This suggests that, the commitment to monitoring documented for gender-diverse boards of directors [2] could help smaller Romanian listed companies in improving their profitability, provided that they are not under severe economic duress.

Table 9. Gender diversity of the boards and firm performance: evidence for profitable firms listed on the Standard tier.

<i>Profitable Firms Listed on the Standard Tier</i>						
(a) Dependent Variable: ROA						
Independent Variables:	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects	Panel OLS Fixed Effects	Panel 2SLS Second Stage Fixed Effects
Intercept	0.037 ** [1.985]	0.019 [0.861]	0.042 ** [2.292]	0.037 ** [1.972]	0.041 ** [2.288]	0.037 ** [2.001]
DivProp	0.024 ** [2.100]	0.083 * [1.934]				
DivPres			0.019 * [1.807]	0.062 * [1.934]		
DivPres*DivProp					0.045 ** [2.443]	0.118 * [1.934]
Board Size	−0.010 [−1.053]	−0.005 [−0.451]	−0.009 [−0.914]	−0.001 [−0.077]	−0.007 [−0.786]	0.000 [0.007]
Firm Age	−0.003 [−0.927]	−0.003 [−1.134]	−0.004 [−1.195]	−0.006 [−1.771]	−0.004 * [−1.315]	−0.006 * [−1.774]
Leverage	−0.030 **** [−4.280]	−0.064 **** [−3.860]	−0.071 **** [−4.385]	−0.071 **** [−4.338]	−0.070 **** [−4.361]	−0.068 [−4.183]
Firm Size	0.011 **** [4.942]	0.013 **** [5.126]	0.011 **** [4.788]	0.011 **** [4.882]	0.011 **** [4.804]	0.011 **** [4.800]
Assets in Place	−0.100 **** [−7.087]	−0.098 **** [−6.965]	−0.104 **** [−7.278]	−0.111 **** [−7.316]	−0.107 **** [−7.497]	−0.118 **** [−7.029]
N	179	179	179	179	179	179
F statistic	10.086 ****	10.004 ****	9.947 ****	10.004 ****	10.275 ****	10.004 ****
R ²	0.499	0.497	0.496	0.497	0.504	0.497
Adjusted R ²	0.450	0.447	0.446	0.447	0.455	0.447
(b) Dependent Variable: Tobin's Q						
Intercept	0.278 ** [2.005]	0.008 [0.046]	0.375 *** [2.649]	0.288 ** [2.026]	0.369 *** [2.678]	0.295 ** [2.080]
DivProp	0.425 **** [4.868]	1.322 **** [4.053]				
DivPres			0.262 **** [3.277]	0.990 **** [4.053]		
DivPres*DivProp					0.626 **** [4.445]	1.888 **** [4.053]
Board Size	−0.128 * [−1.832]	−0.047 [−0.608]	−0.119 [−1.624]	0.012 [0.148]	−0.102 [−1.428]	0.027 [0.319]
Firm Age	−0.013 [−0.585]	−0.024 [−1.012]	−0.025 [−1.041]	−0.071 ** [−2.565]	−0.029 [−1.256]	−0.071 ** [−2.573]
Leverage	−0.048 [−0.392]	0.032 [0.249]	−0.081 [−0.639]	−0.067 [−0.537]	−0.068 [−0.550]	−0.032 [−0.254]
Firm Size	0.177 **** [10.244]	0.194 **** [10.429]	0.171 **** [9.550]	0.175 **** [9.901]	0.170 **** [9.753]	0.171 **** [9.727]
Assets in Place	−0.568 **** [−5.381]	−0.548 **** [−5.077]	−0.625 **** [−5.661]	−0.756 **** [−6.500]	−0.671 **** [−6.169]	−0.858 **** [−6.704]
N	179	179	179	179	179	179
F statistic	15.859 ****	14.843 ****	14.047 ****	14.843 ****	15.309 ****	14.843 ****
R ²	0.610	0.594	0.581	0.594	0.602	0.594
Adjusted R ²	0.572	0.554	0.540	0.554	0.563	0.554

Significance levels: **** 0.001, *** 0.01, ** 0.05, * 0.1; [t statistic in parenthesis].

Based on our sub-sample analysis, it appears that there is empirical evidence to confirm our hypothesis: financial performance is higher for Romanian listed companies featuring more gender

diverse boards of directors. However, the results are not valid for the entire population of companies listed on BSE, as there is no data to suggest that more female directors on boards could be beneficial for bigger, presumably, well-governed Romanian quoted companies, or for the worst performers on the market, although their presence is not documented to be detrimental either.

5. Conclusions

In recent years, it has been acknowledged that sustainable development involves a social cohesion component, in which equal involvement of women at all levels of decision-making plays an important role. The success of social inclusion policies, such as mandating gender quotas for the board of directors, entails their financial sustainability, and, preferably, a positive economic outcome that would constitute motivation for shareholders and companies.

However, research on the impact of female directors in the boardrooms on financial performance produced mixed results and there are recent concerns that evidence suggesting a significant, positive impact are strained due to methodological issues (e.g., the endogeneity of the gender diversity variables). Nonetheless, latest studies that address such concerns, still document a positive association between gender diversity of the boards and performance but mainly for smaller, poorly governed companies, where women proclivity to avoid and attenuate conflict and commitment to monitoring could complement weak corporate governance systems. These results are encouraging for emerging markets, which are reported to feature poor corporate governance mechanisms and where increasing quotas of female directors could be beneficial.

In this context, this paper aimed at providing empirical evidence on the impact of gender diversity of the boards and firm performance for an EU emerging market, Romania, which lags behind other developed member states in terms of social cohesion indicators. Based on a sample of companies listed on the Romanian stock market during 2012–2016, this study confirms previous results, exposing methodological problems and showing that, although firm performance seems to be positively correlated with gender diversity of the boards, the association is not robust and cease to be significant after endogeneity is controlled for. However, based on a sub-sample analysis we could identify a robust association between gender diversity of the board and Tobin's Q for profit-firms and those listed on the Standard tier. As losses can be construed as a distortion factor, the results could be taken to suggest that Romanian listed companies do benefit from increasing gender diversity in the boardroom, which could supplement their rather poor corporate governance practices, particularly in the investor relations domain. This rationale is further confirmed by the similar results obtained in the case of Standard tier companies, which are smaller than the ones listed on the Premium tier and presumably less well governed. If the sample of Standard tier companies is further reduced to profitable firms, in addition to Tobin's Q, an accounting-based measure of performance (ROA) becomes marginally correlated with gender diversity of the boards. Our results do not suggest that increasing the numbers of female directors on boards could be beneficial for bigger, presumably, well-governed Romanian quoted companies, or for the worst performers on the market, although their presence is not documented to be detrimental either.

Overall, although based on a population with meagre representation of women on boards, our results are largely convergent with those obtained by Adams and Ferreira [2], particularly in terms of providing empirical evidence supporting the idea that firms with weak corporate governance can benefit from increasing gender diversity in the board of directors. However, unlike previous results, this study does not show that raising the number of female directors on boards penalizes, on average, listed companies' financial performance, especially of the large, well-governed ones. Consequently, in the context of an emerging market, policies aimed at increasing gender diversity of the boards appear to be financially viable and even beneficial for the major part of listed companies, balancing successfully the social cohesion and economic components of sustainable development.

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