Gender Quota and Firm’s Performance: A Focus on Italian and Spanish Companies from EURO STOXX 50

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Received August 1, 2017; accepted October 6, 2017.

ABSTRACT

Gender diversity of management boards is a highly-debated issue worldwide. Aside from its ethical aspect, promoting equality and a greater inclusion is believed to have also positive effects on the financial performance of a company. National campaigns such as the “2020 Women on Boards” in the USA, or the “Women on the Board Pledge for Europe” at European level are just two examples of initiatives which aim at increasing the female percentage in management boards. In addition, some countries also adopted legal quotas to enhance the existence of diverse management boards. In this context, the present study focuses on the EURO STOXX 50 companies and the relationship between the gender composition of their boards and financial performance as measured by Earnings before Taxes (EBT). A special focus is laid on Italy and Spain, as both countries adopted legislative actions for increasing the proportion of women on boards.

KEYWORDS

Gender quota, firm performance, earnings before taxes (EBT), EURO STOXX 50 index, Italy, Spain.
1. Introduction

The underrepresentation of women in leadership positions is a fact and a challenge (European Commission, 2012, 2015; Pew Research Center, 2015; ILO, 2015; AAUW, 2016). Věra Jourová (2014), European justice, consumers and gender equality commissioner, notes for instance that “women are still overrepresented in lower paid sectors in the labour market and underrepresented in decision-making positions”. Klaus Schwab, founder and Executive Chairman of the World Economic Forum, rises attention on the changes of the labour market and states that “gender gaps are set to increase in some industries as jobs traditionally held by women become obsolete, while at the same time opportunities are emerging in wholly new domains” (World Economic Forum 2015, p. v).

According to the “Global Gender Gap Report” from 2015, only 59% of the gender gap in “economic participation and opportunity” have been closed by the total 145 countries covered by this report (World Economic Forum 2015, p. v). “Economic participation and opportunity” is a sub-index of the Global Gender Gap Index and it contains three components: the participation gap, the remuneration gap and the advancement gap. When the entire Global Gender Gap Index1 is considered in relation to the GDP per capita, Human Development Index, and the Global Competitiveness Index, the authors of the report highlight a strong correlation between gender equality and the economic performance of the countries under scrutiny (World Economic Forum 2015, p. 36). In the same time, though admitting that correlation does not imply causality, the World Economic Forum (2015, p. 36) argues that “empowering women means a more efficient use of a nation’s human capital endowment and that reducing gender inequality enhances productivity and economic growth”. Moreover, the “Global Gender Gap Report” bears a message to the policy-makers who should “give women the same rights, responsibilities and opportunities as men” (World Economic Forum 2015, p. 45).

The European Commission (2015) too considers that “not taking advantage of the skills of highly qualified women constitutes a waste of talent and a loss of economic growth potential” and it encouraged “credible self-regulation” by companies to improve gender balance on corporate boards. As the progress was slow, gender quotas appeared as a

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1 The Global Gender Gap Index was created in 2006 by the World Economic Forum and it analyses the gap between man and women with regard to four categories: “Economic Participation and Opportunity”, “Educational Attainment”, “Health and Survival” and “Political Empowerment”.

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necessary instrument to implement change: “The figures show that it is the legislative measures that result in substantial progress, especially if they are accompanied by sanctions” (European Commission, 2012, p. 13). Furthermore, the European Commission (2012, p. 7) stresses the economic importance of gender diversity in corporate boards, by quoting several studies which showed that a high percentage of women on board translates into strong financial results. Gender quotas can be regarded just as important as any other targets for managing business performance, as they set objectives with regard to gender composition, which in turn can translates into improved outcomes.

The present article pursues an empirical strategy and focuses on the 50 companies of the EURO STOXX 50 index; it analysis the relationship between their financial performance measured by their EBT and the composition of their management board by asking the question whether companies with a high gender quota achieve a higher profit. A special focus is laid on the two Southern European countries present in the EURO STOXX 50 index, Italy and Spain, as both countries introduced mandatory quotas for their listed companies. Moreover, the paper investigates also the existence of sectoral differences in female representation in management boards and financial performance.

The paper is structured as follows: in a first step, studies which dealt with the same topic are presented creating thus a frame for the present research. In a second step, the research methodology is described. The next section contains the findings. In the concluding section, the findings are discussed, the limitations of the present study are shown and ideas which could be investigated in future research are suggested.

2. Literature Review

Though there is a vast number of studies dedicated to assessing the impact of women’s presence in management board on the firm performance, the findings are often contradictory. If these findings were to be subjected to a classification, one could identify three categories: Some studies showed that gender diversity of the boards has a negative impact on firm performance (e.g. Cooper, Gimeno-Gascon and Woo, 1994; Carter and Rosa, 1998; Fasci and Valdez, 1998; Adams and Ferreira 2009; Ahern and Dittmar, 2012). Ahern and Dittmar (2012) for example analyse the situation of Norwegian companies after the introduction of gender quotas (according to the legislation, a 40 percent representation of women in the board of all the Norwegian public limited firms
was mandatory). The results of this legislative change were rather negative: “The quota led to younger and less experienced boards, increases in leverage and acquisitions, and deterioration of operating performance” (Ahern and Dittmar 2012, p. 137).

Other studies could not identify a significant impact of gender diversity on profitability (Du Rietz and Henrekson, 2000; Marco, 2012). Johnsen and McMahon (2005) for instance emphasize that “consistent statistically significant differences in financial performance and business growth do not exist between female and male owner-managed concerns once appropriate demographic and other relevant controlling influences are taken into account” (p. 115).

Finally, there is a third categories of studies which acknowledge that gender diversity in top management positively affects firm performance (Campbell and Vera, 2010; Dezsö and Ross, 2012, Kahn and Vieito, 2013; Post and Byron, 2015). A complex study was conducted by McKinsey & Company (2007) by selecting 89 European listed companies which distinguished themselves by a high number of women in top management positions. The analysed KPIs were: return on equity (ROI), operating result (EBIT) and the stock price growth. On all these KPIs the companies with a high number of women on board ranked better than the average in their sector (McKinsey & Company, p. 13-14).

Barta, Kleiner and Neumann (2012) looked at the relationship between board composition and the returns on equity (ROE) and earnings before interest and taxes (EBIT) of 180 publicly traded companies in France, Germany, United Kingdom and the USA. Their results indicated that companies with diverse boards have significantly higher earnings and returns on equity. Another exhaustive study, in which 2,360 companies from the Morgan Stanley Capital International All Country World Index (MSCI ACWI) were observed over a period of 6 years, was conducted by the Credit Suisse Research Institute (2012) and it reached similar conclusions with those of McKinsey & Company.

In line with these studies, the present research focuses on the companies of another index, namely the EURO STOXX 50, and aims at exploring whether there is a link between the EBT of these successful European companies and the number of women from their corporate boardrooms. A special focus will be placed on identifying also sectoral differences of women presence in corporate boards. With regard to the two countries here under scrutiny, Italy and Spain, it has to be noted that both countries have statutory quotas: Spain through its Equality Law from 2007 established that larger firms (firms with more than 250 employees) should adopt an Equality Plan which by 2015 should lead to a target
of 40% women on boards (Verge and Lombardo, 2015). Italy introduced a board gender quota in 2011 (Law 120/2011 or the “Golfo-Mosca” law) for publicly listed companies and for state-owned companies (in 2012) and this law stipulates that by 2015 the listed and state-owned companies should have 1/3 women on their boards of directors and statutory auditors (Ferrari et al. 2016).

3. Methodology
The EURO STOXX 50 Index was selected to represent the performance of the 50 largest companies among 19 super-sectors. It has to be mentioned here that the index composition is subjected to change yearly: stocks can be added and deleted on the basis of an annual review, the number of components remaining the same (50). EURO STOXX 50 is part of the STOXX blue-chip index family. Moreover, EURO STOXX 50 index is one of the most liquid indices for the Eurozone and serves for benchmarking purposes. The index is a controlling index which ensures stable and up-to-date figures. It represents the performance of only the largest and most liquid companies in a sector (STOXX, 2016).

The following study was conducted at the beginning of the year 2016. Due to the fact that most of the 2015 annual reports of the EURO STOXX 50 companies were not published at that point, it was decided to look at the index composition as it was at the end of the year 2014. Therefore, data was collected with regard to the 50 EURO STOXX companies, using on the one hand the information from the annual reports, and on the other hand information from financial websites. In order to examine how successful these companies are, the EBT was chosen as being a relevant KPI, taking thus into consideration the fact that companies may face different tax rates in different states. In other words, the lack of a harmonized taxation system across the Eurozone will not affect the results of this study, the EBT making possible a comparison of the EURO STOXX 50 companies at European level.
Figure 1. The 50 EURO STOXX companies as of 2014 (Source: own representation based on the information from: https://www.stoxx.com/index-details?symbol=SX5E)
4. Findings

Figure 1 offers an overview of the EURO STOXX 50 index, by providing relevant information with regard to the companies which are part of the index, their country of origin, the sector in which they are active, as well as women’s percentage on board, EBT and total number of employees. It can be observed that only companies from 7 Eurozone countries are part of the index. Moreover, in each country the EURO STOXX companies can be allocated to different sectors as presented in figure 2.

![Figure 2](https://www.stoxx.com/index-details?symbol=SX5E)

By looking at figure 2, it becomes clear for example that Finland has only one company in the EURO STOXX 50 index and this is active in the ‘Technology’ sector. By contrast, all German companies from the EURO STOXX 50 index are active in the ‘automobiles and parts’ sector. This does not mean that there are no companies in France which produce automobiles and parts, only that those companies are not part of the EURO STOXX 50 index. The French companies which are present in the EURO STOXX 50 index prevail especially in the following sectors: ‘Health Care’, ‘Construction’, ‘Media’ and ‘Real Estate’.

Figure 3 presents the most important sectors by total EBT of the EURO STOXX 50 companies. The companies which are active in the sector ‘Banks’ have together the highest EBT, followed by the companies active in the sector ‘Automobile & Parts’, ‘Insurance’, ‘Personal & Household Goods’ and ‘Oil & Gas’. One can see for instance
that the total EBT of the companies active in the banking sector is twice as high as the total EBT of the companies active in the ‘Oil & Gas’ sector.

Figure 3. Overview of the EBT (in millions) of the top 5 sectors companies of EURO STOXX 50 (Source: own representation based on retrieved data from http://www.finanzen.net/)

Out of the 50 companies which are part of the EURO STOXX 50 index, six companies are located in Spain and five companies are located in Italy (see figure 4). Both Italy and Spain have two companies active in the banking sector, while in the ‘Oil & Gas’ and ‘Utilities’ sectors, each country has one company active. However, in the ‘Insurance’ sector, only Italy is represented by the company Assicurazioni Generali, while Spain has one company active in the ‘Retail’ sector and one company in the ‘Telecommunication’ sector.

| Top 5 Sectors by total EBT of the EURO STOXX Companies in 2014 |
|--------------------------------------------------------------|
| Banks | 32,362.09 € |
| Automobiles & Parts | 28,134.00 € |
| Insurance | 21,449.00 € |
| Personal & Household Goods | 19,821.40 € |
| Oil & Gas | 15,134.23 € |

EBT in Millions

| Italy | Spain |
|-------|-------|
| Banks |  |
| Intesa Sanpaolo | Bco Bilbao Vizcaya Argentaria |
| Unicredit | Bco Santander |
| Utilities |  |
| Enel | Iberdrola |
| Oil and Gas |  |
| Eni | Repsol |
| Insurance |  |
| Assicurazioni Generali | - |
| Retail |  |
| - | Industria de Diseno Textil SA |
| Telecommunication |  |
| - | Telefonica |

Figure 4. Overview of the Italian and Spanish companies in the EURO STOXX 50 Index (Source: own representation based on the information from: https://www.stoxx.com/index-details?symbol=SX5E)
It has to be pointed out that Italy and Spain contributes heavily to the most important sector of the EURO STOXX 50 index, as each county has two companies acting in the banking sector: Banco Bilbao Vizcaya Argentaria and Banco Santander in Spain, and Intesa Sanpaolo and Unicredit in Italy. If one looks at figure 5, which shows an overview with regard to the EBTs of both Italian and Spanish companies from the EURO STOXX 50 index, it can be easily observed that the EBT of Banco Santander (€ 10,436.00 millions) represents over 30% of the entire EBT of the banking sector as represented in figure 3. Moreover, the EBT of Banco Santander is actually the second highest EBT of all the EURO STOXX companies in 2014. The Italian company Eni contributes too with its EBT to almost one half of the entire EBT of the ‘Oil & Gas’ sector of the EURO STOXX 50 index.

![Figure 5. Overview of the EBTs (in millions) of the Italian and Spanish companies of EURO STOXX 50 (Source: own representation based on retrieved data from http://www.finanzen.net/)](image)

However, the country which has the highest number of companies (19) and as well the highest degree of sectoral diversification from the EURO STOXX 50 index is France. France too has for instance two companies active in the banking sector, but as it can be seen in figure 6, French companies are active in no less than fourteen sectors.
Figure 6. Overview of the sectors of French, Italian and Spanish companies of EURO STOXX 50 (Source: own representation based on retrieved data from http://www.finanzen.net/)

Figure 7 shows the most successful companies of the EURO STOXX 50 index in terms of EBT. Banco Santander (Spain) and Eni (Italy) are the only companies which could be included in a top ten companies by EBT, the top being dominated by German and French companies, as Germany and France have the highest number of companies included in this index.

Figure 7. Top ten EURO STOXX companies by EBT with figures of 2014 (Source: own representation – the EBTs of all the 50 companies were taken from http://www.finanzen.net/)
If by now the emphasis was on offering a broad insight on the EURO STOXX 50 companies, also presenting key figures such as the EBT, in the following section the focus will be on completing this insight by introducing also the information on gender quotas as found in the annual reports of the EURO STOXX 50 companies. In this respect, figure 8 shows the percentage of women in management position at country level.

![Percentage of women in the management board of EURO STOXX companies in 2014](image)

**Figure 8.** Percentage of women in the management board of EURO STOXX companies in 2014 in different countries (Source: own representation – the information with regard to the number of women on the management board was extracted from the 2014 annual reports of the respective companies)

Both Italy and Spain register a relatively high women quota in the management board of the companies included in EURO STOXX 50 index. Italy and France are actually the only two countries whose companies have a women quota which is higher than 25%. By contrast, the women quota in both Germany and Belgium is under 10%: 9% and respectively 7%. These numbers should be regarded in the context of each country’s legislation: France and Spain have a legislative quota regime of 40%, Italy and Belgium – 33%, the Netherlands – 30% (to expire in 2016), Germany – 30% (starting with 2016) while Finland has no quota in place (European Commission, 2015). However, Finland has only one company (Nokia) in EURO STOXX 50 index, and therefore, it can be regarded as less relevant for overall results.

Often, the sector pays an important role as there are sectors which are “traditionally” dominated by men. Adams and Kirchmaier (2016) show for example that the percentage of women on board is lower for companies active in the STEM (Science, Technology, Engineering and Maths) and finance sectors than in non-STEM sectors.
Figure 10 presents the first five sectors from the EURO STOXX 50 index in which women have the highest representation.

As it can be seen, there are 33% women in the management board of companies that are active in the ‘Personal & Household Goods’ sector and there are 27% women in the management board of companies active in the ‘Oil & Gas’ sector. ‘Health Care’ companies have a women quota of approximately 27%, ‘Insurance’ companies of almost 26%, and ‘Food & Beverage’ companies have a women quota of nearly 24%.

With the exception of the ‘Oil and Gas’ sector, all the other sectors are consumer oriented sectors. Similar findings were presented also in a report by Kamonjoh (2014, p. 7): the ‘Household & Personal Products’ sector had the highest percentage of women on the boards of the 500 S&P companies and was followed in a top five by other consumer oriented sectors.

Finally, the next figure (figure 10) presents the first three sectors which have the highest women quota per country.
It can be stated that the women quota is high especially in traditional branches such as Banks’, ‘Utilities’ and ‘Insurance’ and lower in new technology branches such as ‘Telecommunication’ or ‘Industrial Goods & Services’. This result is significant over all countries. When the situation in Italy and Spain is analysed, one can see that the ‘Utilities’ sector has the highest women quota in both countries, followed by the ‘Insurance’ sector (in Italy) and the banking sector (in Spain), while the ‘Oil & Gas’ sector has the third highest women quota in both Italy and Spain. The Spanish retail company “Industria de Diseno Textil SA” made it also in top 3 with regard to gender quota.

In order to bring together the former analyzed EBT and the calculated women quota a correlation analysis was run (see figure 11). For Spain only a weak positive correlation ($r=0.3$) was found between the EBT and quota of women on the management board.
A similar result was registered also when running a correlation analysis for the Italian EURO STOXX companies, the difference being that in this case a negative correlation ($r=-0.5$) was found. As it can be seen in figure 12, as the gender quota of women on management board increases, the EBTs of the respective companies decrease.
Even at the level of the entire EURO STOXX 50 index, only a very weak correlation ($r=0.06$) between the gender quota and the EBT of the companies could be evidenced (see figure 13).

![Figure 13](image.png)

**Figure 13.** A weak correlation between the EBT and the women quota in Management Boards (Source: own representation – the information with regard to the number of women on the management board was extracted from the 2014 annual reports of the respective companies)

Therefore, the hypothesis of this study could not be verified; the relationship between the gender quota and a company’s EBT is very weak, be it for the entire EURO STOXX 50 index, be it for the two countries here under scrutiny: Italy and Spain.

### 5. Discussion of Results and Conclusions

The present study followed an empirical strategy with the aim of determining the correlation between the gender composition of the management boards of the EURO STOXX 50 index and the firms’ financial performance as measured by their EBT. The results did not indicate that those companies which have the highest percentage of women on board also achieve the highest EBT. Even when a country comparison was made, Spain and Italy being among the countries which have adopted legislative actions for increasing the proportion of women on boards, the hypothesis could not be supported.
However, there are some shortcomings which could be addressed in a future research: for example, the effects of legislative change (compulsory quota) should be considered over a longer period of time. Other variables could be also added to the study, such as the total number of females in the workforce of a company, or a comparison between companies active in the same sectors and acting under the same rules and regulations could be pursued. What can be certainly stated at the end of this paper is that, there is a trend toward greater gender diversity on boardrooms, women are rising into leadership roles and gender quota can help in measuring internal organizational changes.
REFERENCES

AAUW (2016). Barriers and Bias. The Status of Women in Leadership. Available at: http://www.ncgs.org/Pdfs/Resources/barriers-and-bias.pdf. (Accessed on 13 June 2017).

Adams, R.B. and Ferreira, D. (2009). Women on the Boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309.

Adams, R.B. and Kirchmaier, T. (2016). Women on Boards in Finance and STEM Industries. *American Economic Review*, 106(5), 277-281.

Ahern, K.R. and Dittmar, A.K. (2012). The changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation. *The quarterly Journal of Economics*, 127(1) 137-197.

Barta, T., Kleiner, M. and Neumann, T. (2012). Is there a payoff from top-team diversity? *McKinsey Quarterly*.

Campbell, K. and Vera, A.V. (2010). Female Board Appointments and Board Valuation: Short and Long-term Effects. *Journal of Management and Governance*, 14(1), 37-59.

Carter, S., & Rosa, P. (1998). The financing of male and female owned businesses. *Entrepreneurship and Regional Development*, 10(3), 225–241.

Cooper, A.C., Gimeno-Gascon, F.J., Woo, C.Y., (1994). Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing* 9 (5), 371-395.

Credit Suisse Research Institute, (2012). Gender Diversity and Corporate Performance. Available at: https://publications.credit-suisse.com/tasks/render/file/index.cfm?fileid=88EC32A9-83E8-EB92-9D5A40FF69E66808 (Accessed on 02 September 2016).

Dezsö, C.L. and Ross, G. D., (2012). Does Female Representation in Top Management Improve Firm Performance? A Panel Data Investigation. *Strategic Management Journal*, 33(9), 1072-1089.

Du Rietz, A. and Henrekson, M. (2000). Testing the Female Underperformance Hypothesis. *Small Business Economics*, 14(1), 1-10.

European Commission (2012). Women in economic decision-making in the EU: Progress report. Luxembourg: Publications Office of the European Union.

European Commission (2015). Gender Balance on Corporate Boards. Europe is Cracking the Glass Ceiling. Available at: http://ec.europa.eu/justice/gender-equality/files/womenonboards/factsheet_women_on_boards_web_2015-10_en.pdf. (Accessed on 07 September 2016).
Fasci, M.A., Valdez, J., (1998). A performance contrast of male- and female-owned small accounting practices. *Journal of Small Business Management* 36 (3), 1–7.

Ferrari, G, Ferraro, V., Profeta, P. and Pronzato, C. (2016). Gender Quotas: Challenging the Boards, Performance, and the Stock Market. IZA DP No. 10239. Available at: http://ftp.iza.org/dp10239.pdf. (Accessed 14 June 2017).

ILO (2015). Women in Business and Management. Gaining Momentum. Available at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_334882.pdf. (Accessed on 13 June 2017).

Jourová, V. (2014). EU Gender Equality Legislation Key to Breaking the Glass Ceiling. Available at: https://www.theparliamentmagazine.eu/articles/opinion/eu-gender-equality-legislation-key-breaking-glass-ceiling. (Accessed 13 June 2017).

Johnsen, G., McMahon, R., (2005). Owner-manager gender, financial performance and business growth amongst SMEs from Australia’s business longitudinal survey. *International Small Business Journal* 23 (2), 115–142.

Kamonjoh, E. (2014). Gender Diversity on Boards. A Review of Global Trends. Available at: https://www.issgovernance.com/file/publications/2014-iss-global-board-diversity-report.pdf. (Accessed on 07 September 2016).

Khan, W.A. and Vieito, J.P. (2013). CEO Gender and Firm Performance. *Journal of Economics and Business*, 67, 55-66.

Marco, R. (2012). Gender and economic performance: Evidence from the Spanish hotel industry. *International Journal of Hospitality Management*, 31(3), 981-989.

McKinsey&Company, (2007). Women Matter: Gender Diversity, a Corporate Performance Driver. Available at: http://www.raeng.org.uk/publications/other/women-matter-oct-2007 (Accessed on 02 September 2016).

Pew Research Center, (2015). Women and Leadership. Public Says Women are Equally Qualified, but Barriers Persist. Available at: http://www.pewsocialtrends.org/2015/01/14/women-and-leadership/. (Accessed on 13 June 2017).

Post, C. and Byron, K. (2015). “Women on Boards and Firm Financial Performance. A MetaAnalysis”. *Academy of Management Journal*, Vol. 58 (5), 1546-1571.

Verge, T. and Lombardo, E. (2015). The differential approach to gender quotas in Spain: regulated politics and self-regulated corporate boards. EUI Working Paper LAW 2015/24. Available at: http://campus.eui.eu/bitstream/handle/1814/35807/LAW_2015_24.pdf?sequence=1&isAllowed=y. (Accessed 14 June 2017).

World Economic Forum (2015). The Global Gender Gap Report. Available at: http://www3.weforum.org/docs/GGGR2015/cover.pdf. (Accessed 14 June 2017).