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**Working Paper**

## The Impact of Gender Composition of Boards on Firms Financial Performance in Poland

Institute of Economic Research Working Papers, No. 11/2017

**Provided in Cooperation with:**

Institute of Economic Research (IER), Toruń (Poland)

*Suggested Citation:* Maj, Jolanta; Bebenek, Piotr (2017) : The Impact of Gender Composition of Boards on Firms Financial Performance in Poland, Institute of Economic Research Working Papers, No. 11/2017, Institute of Economic Research (IER), Toruń

This Version is available at:

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Institute of Economic Research Working Papers

No. 11/2017

**The Impact of Gender Composition of Boards on Firms  
Financial Performance in Poland**

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**Article prepared and submitted for:**

**9<sup>th</sup> International Conference on Applied Economics Contemporary Issues in Economy, Institute of Economic Research, Polish Economic Society Branch in Toruń, Faculty of Economic Sciences and Management, Nicolaus Copernicus University, Toruń, Poland, 22-23 June 2017**

**Toruń, Poland 2017**

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## The Impact of Gender Composition of Boards on Firms Financial Performance in Poland

**JEL Classification:** *M14; M12*

**Keywords:** *gender diversity; corporate governance; board composition; firm performance; financial performance*

### Abstract

**Research background:** The so far conducted studies have not been able to answer the question of whether there is a relationship between gender composition of the board and the firms financial performance. Because of the tendency to legally regulate the gender balance of boards of directors as it was, among others, planned in the draft of the *EU Directive on improving the gender balance among non-executive directors of companies listed on stock exchanges*, which admittedly has been rejected, however, indicates the existence of certain trends among decision-makers, the issue of determining the relationship between gender composition of the boards and firms performance becomes an extremely important issue.

**Purpose of the article:** The paper aims to answer the question on the number of women in the highest organizational bodies in Polish enterprises and whether there is a relationship between the compositions of boards due to gender of their members and financial results achieved by the companies.

**Methodology/methods:** For the analysis companies listed on the Warsaw Stock Exchange were analyzed. Following indicators: debt ratio (DR), debt to equity ratio (D/R) and the long-term debt to total assets ratio were chosen. Using statistical analysis the financial indicators were juxtaposed with the number of women on boards.

**Findings & Value added:** The paper provides insight into the composition of boards in Polish companies listed on the Warsaw Stock Exchange due to gender. It shows that boards of these companies are highly masculine. Nevertheless the paper tries to show if there are any dependencies between the amount of women on boards and the financial performance of the companies.

## Introduction

Nowadays certain tendencies to regulate gender composition of boards of directors can be observed. One example can be the draft of the *EU Directive on improving the gender balance among non-executive directors of companies listed on stock exchanges*, which obligates certain organization to disclose non-financial and diversity information or good practices suggested by inter alia Warsaw Stock Exchange to disclose information on corporate governance and gender composition of the board (Maj, 2016). The directive admittedly has been rejected by several EU Member States and thus so far put on ice by the EU. According to Adams (2016) between 2008 and 2015 32 countries have implemented 42 policies regulating gender composition of boards. This shows that there are attempts being made to regulate gender composition of the boards and therefore that decision-makers believe that gender composition somehow influences the organizations functioning.

Some research suggests, that indeed, companies with women on boards perform better. Catalyst (2007) (2011) analyzed Fortune 500 firms regarding return on equity (ROE), return on sales (ROS) and return on invested capital (ROIC) and came to the conclusion that in general companies with more women on boards outperform those with less women on boards. Similar results were presented by McKinsey (2007) and Credit Suisse (2012). However, those research results were obtained by consulting companies and not in an academic research, therefore the results must be considered with caution. Nonetheless, also academics tried to determine, whether there is a relation between gender composition of the board and firms performance. Post and Byron (2015) came to the conclusion, that female representation on boards is positively connected with inter alia accounting returns and monitoring and strategy involvement. However, they also found, that the relationship between female representation on boards and market performance is not significant. Also Pletzer et al. (2015) came to the conclusion, that if no other factors are considered, the mere representation of women on boards does not correlate with firm financial performance. However Isidro and Sobral (2015) came to an opposite conclusion, that women representation on boards is positively connected to financial performance i.e. return on assets and return on sale.

Therefore, due to the mixed evidence on whether gender composition influences firms financial performance but also due to the fact that organizations are searching for factors, which could give them competitive advantage without the necessity of using advanced technology (Bebenek, 2016) the authors of this paper decided to analyze, whether, based on the data proved by Polish companies, it can be determined if such a relation exists, which is the main objective of this paper.

## Method of the Research

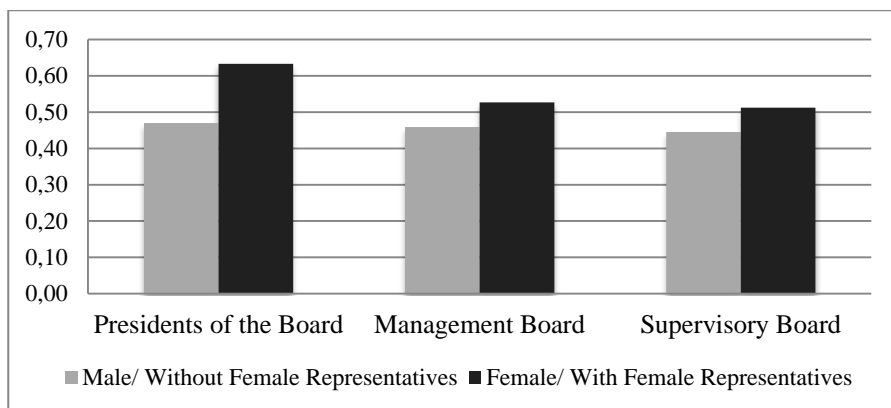
For the purpose of this paper 281 organizations listed on the Warsaw Stock Exchange were analyzed. Financial reports for 2015 taken under consideration. Not all organizations listed on the Warsaw Stock Exchange could be included as some of them until the day the reports were collected (February 1-10, 2017) did not disclose that information and others did not disclose information regarding their corporate governance and the composition of their board. The reports were analyzed towards three indicators: debt ratio (DR), debt to equity ratio (D/R) and the long-term debt to total assets ratio. The financial data was then juxtaposed with the number of women within the supervisory board, the management board and organizations, where women were presidents of the boards. The mentioned indicators were chosen, because they are an important part of organizations' financial performance. However they also imply important information regarding the openness and willingness to risk as well as information regarding the openness and willingness to investments and development of the organization itself. Therefore, when analyzing the data presented in the paper it must be taken under consideration, that a certain level of debt, especially long-term debt may be an indicator of the organizations' growth and not necessarily financial problems of the organization.

## Research Findings

The first general conclusion refers to the general number of men and women in the supervisory and management boards. In all 281 analysed organizations women were represented only in 91 management boards. More than one woman was present in only 150 supervisory boards. Only in 19 of the analysed companies women were presidents of the boards. Furthermore, even in the boards, where women were present, they still constituted a minority with 12% of all management board members and 14% of all supervisory board members. Therefore it is evident that women are underrepresented in the most important bodies of the organizations and therefore have a more limited access to power and decision-making.

The relation of the first indicator, the debt ratio to the gender composition of the boards was presented on the Figure 1.

**Figure 1.** Relation of DR to the gender composition of the management board, supervisory board and the gender of the president of the board.



Source: own calculations.

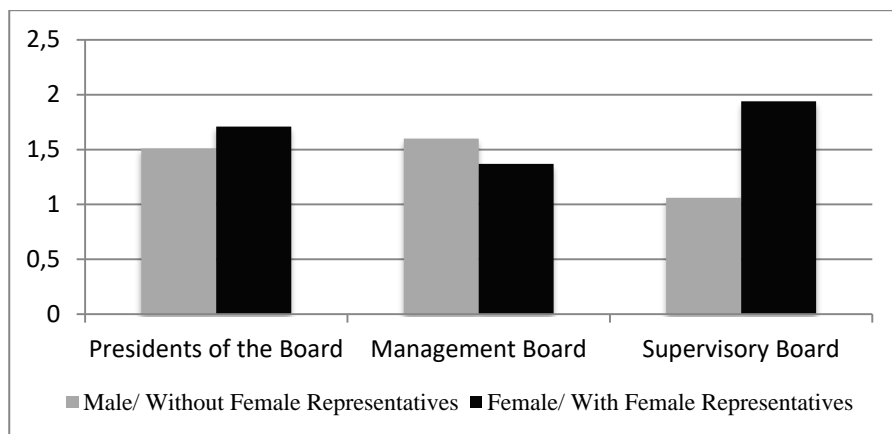
The analysis of the relation of the gender composition of the most important bodies of the organization to the debt ratio (DR) shows, that the indicator is slightly higher in organizations where women are represented in the management and supervisory bodies as well as in those organizations where women are presidents of the boards. However, especially regarding the organizations with female presidents, the low number of such organizations makes it difficult to draw convincing conclusions. Because with the DR, the higher the indicator, the higher the companies' debt and in consequence the higher the costs of servicing the loan, the conclusion can be made, that organizations with women on boards tend to have a slightly higher debt and therefore manage capital worse. Organizations with a female president of the board have an average DR of 0.63 and organizations with a male president of the board have an average DR of 0.47. The average value of DR in organizations with women on management boards is 0.53 and without women is 0.46. In organizations with female representatives on supervisory boards the average DR is 0.51 and in organizations without female representatives it was 0.45. However, in order to determine whether the presence of women on boards led to the higher debt or whether women joined the boards with an already higher DR, further analysis, including a wider time frame, would have to be conducted. As the DR indicator is also strongly connected with the sector the organization is active in, it should also be checked in which industries the organizations with female representation on boards are active in.

The DR may also be analyzed based on the number of women within management and supervisory boards. In organizations with three women on management boards, the average DR was 0.94. In organizations with two women it was 1.26 and in organizations with one woman it was 0.37. In

organizations with four women on a supervisory board the average DR was 0,35. In organizations with three women it was 0,6. In organizations with two women on a supervisory board the average DR was 0,4 while in organizations with one woman it was 0,55. It is therefore hard to indicate a dependency.

The second chosen indicator was the debt to equity ratio. Its' relation to the gender composition of the boards was presented on the Figure 2.

**Figure 2.** Relation of D/R to the gender composition of the management board, supervisory board and the gender of the president of the board.



Source: own calculations.

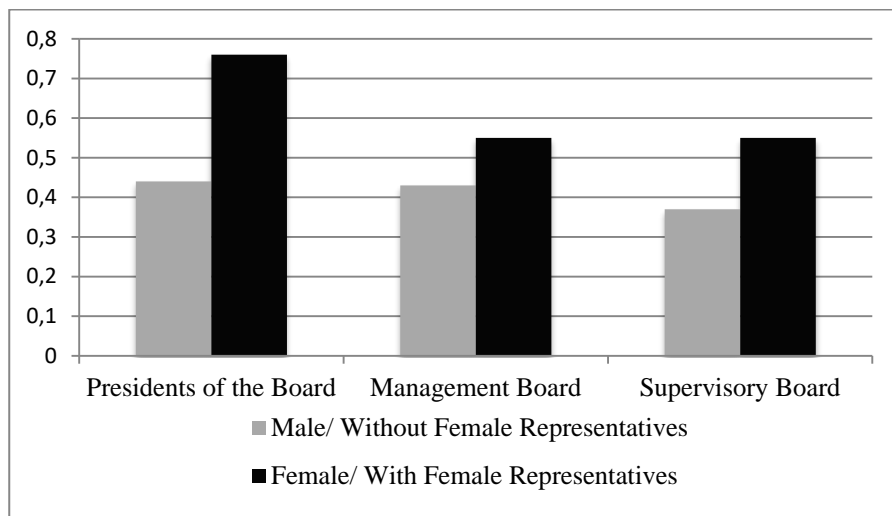
As the value of the debt to equity ratio (D/R) indicator should estimate around 1,0 to 3,0 all of the analyzed organizations, the ones with and without female representation fall within the optimum compartments. Organizations with female representation on management boards record a slightly lower D/R. The average value of the D/R indicator for organizations with female presidents of the boards is 1,71 and for organizations with male presidents is 1,51. The average value of the D/R indicator for organizations with female representatives on management boards is 1,37 and for organizations with only male board members the D/R is 1,6. The highest difference can be observed in relation to the gender composition of the supervisory board. In organization with female representation the D/R is 1,94 and in organizations without female representatives the D/R is 1,06. The debt to equity ratio may suggest a higher willingness and openness to risk. This is not necessary a negative situation, as it may suggest a greater openness for innovation and development. However, if the risk and therefore also the

debt to equity ratio is too high it may lead to serious financial problems for the organization.

The D/R may also be analyzed based on the number of women within management and supervisory boards. In organizations with three women on management boards, the average D/R was 7,54. There are however only 3 such organizations. In organizations with two women it was 1,93 and in organizations with one woman it was 1,01. In organizations with four women on a supervisory board the average D/R was 0,6. In organizations with three women it was 1,84. In organizations with two women on a supervisory board the average D/R was 2,13 while in organizations with one woman it was 1,93. Similarly to the DR it is also hard to indicate a dependency in the case of D/R.

The third indicator analyzed is the long-term debt to total assets ratio. The relations between this indicator and the gender composition of the gender composition of the most important bodies of the organization is presented on Figure 3.

**Figure 3.** Relation of long-term debt to total assets ratio to the gender composition of the management board, supervisory board and the gender of the president of the board.



Source: own calculations.

In all three situations, the long-term debt to total assets ratio is higher in organizations where women are represented in the boards as well as are presidents of the board. In organizations with female presidents the average



ratio was 0,76 and in organizations with male presidents the ratio was 0,44. In organizations with female representatives on management boards average the long-term debt to total assets ratio was 0,55 and in organizations without female representatives it was 0,43. In organizations with female representatives on supervisory boards average the long-term debt to total assets ratio was also 0,55 and in organizations without female representatives it was 0,37. Assuming that this ratio should not be higher than 1, neither the organizations with female representatives on boards nor the ones without are in liquidity threat. The long-term debt may be a result of bank loans aimed at investments. Therefore, if they are at reasonable level, they may be a positive indicator of development, growth and reasonable investments undertaken by the organizations.

Also the long-term debt to total assets ratio may be analyzed based on the number of women within management and supervisory boards. In organizations with three women on management boards, the average long-term debt to total assets ratio was 3,82. In organizations with two women it was 0,93 and in organizations with one woman it was 0,34. In organizations with four women on a supervisory board the average long-term debt to total assets ratio was 0,24. In organizations with three women it was 0,27. In organizations with two women on a supervisory board the average long-term debt to total assets ratio was 1,18 while in organizations with one woman it was 0,24. It is therefore hard to indicate a dependency.

## **Conclusions**

The presented analysis of the distribution of the debt ratio (DR), debt to equity ratio (D/R) and the long-term debt to total assets ratio among organizations with female representatives on boards shows that in general organizations with female representatives on boards tend to have higher ratios. This may not necessarily be a negative trend because, as it was already suggested above, it may be a sign of organizational development and investments undertaken by the organization. Therefore organizations with minimal debt related ratios might be organizations, which struggle with stagnation.

The paper presents only a small part of the organizations financial statement and financial performance. In order to get the full picture on how gender composition of the board affects the organizations financial performance other financial indicator should be analyzed. Furthermore, it would be beneficial to analyze how the indicator changed over time and juxtapose it with changes of the gender composition of the board. As suggested, it would have to be checked, in which point and which financial situation women joined the organizations boards or became president of the board.

Furthermore a cross industry analysis would also be of interest, as many financial indicators differ significantly across different industries. Also a conduction of more advanced statistical analysis would be beneficial.

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