



DEPARTMENT OF ACCOUNTING AND FINANCE

**The Effect of Female Directors on the
Informativeness of Stock Prices.**

MASTER THESIS

CHRISTODOULOS GEORGIU

2023



University of Cyprus
Department of Accounting
and Finance

The Effect of Female Directors on the Informativeness of Stock Prices.

Master Thesis in Finance

Christodoulos Georgiou

Supervisor: Irene Karamanou

Abstract

During the current thesis, the effect of female directors on the informativeness of stock prices and specifically on the tendency to delay the release of bad news will be examined. The existing literature has been examined and it seems that there is evidence that the female presence on the board of directors has a positive effect on various financial and market characteristics. Based on this, we expect that female directors are associated with weaker market reaction to the release of bad news. For the analysis, we used daily data on announcements and forecasts and have only used the observations that have negative values, which reflect the bad news. Then, the effect of women directors will be examined over the bad news and will then proceed with the conclusions of this research. In contrast with the existing literature, it seems that we find in all models used for the purposes of the analysis that the presence of female directors in the boardroom has a negative effect, which suggests that in the presence of female directors, firms do not disclose their bad news timely enough.

Keywords: Female Directors, Stock Prices, Informativeness, Delay News, Bad News

Date: June 13, 2023

**ΤΜΗΜΑ ΛΟΓΙΣΤΙΚΗΣ
ΚΑΙ ΧΡΗΜΑΤΟΟΙΚΟΝΟΜΙΚΗΣ**

6 Ιουνίου 2023

Συντονιστή Μεταπτυχιακών Προγραμμάτων
Τμήματος Λογιστικής και Χρηματοοικονομικής

Β Ε Β Α Ι Ω Σ Η

Βεβαιούται ότι ο μεταπτυχιακός φοιτητής Χριστόδουλος Γεωργίου (Αρ. Ταυτότητας 949541) ολοκλήρωσε με επιτυχία την προφορική υποστήριξη της διπλωματικής του μελέτης σε εξέταση που έλαβε χώραν ενώπιον διμελούς εξεταστικής επιτροπής, στις 2 Ιουνίου 2023. Παρέδωσε την διπλωματική του μελέτη στις 13 Ιουνίου 2023.

Η εξεταστική επιτροπή,

Ειρήνη Καραμάνου
(Πρόεδρος, Σύμβουλος)

Μάριος Θεοδοσίου
(Σύμβουλος)

Acknowledgements

I would like to thank my supervisor, Professor Irene Karamanou of the Department of Accounting & Finance at the University of Cyprus, for her valuable input and guidance throughout the thesis process.

Last but not least, I would like to thank my friends and family for the stimulating discussions and support.

CHRISTODOULOS GEORGILOU

Contents

1. Introduction.....	6
2. Literature Review	9
2.1 Board Diversity	9
2.2 What affects information quality	12
2.3 Motivation and Main Hypothesis	14
3. Research Design	15
3.1 Dataset	15
3.2 Variables Description	15
3.3 Empirical Model	17
4. Descriptive Statistics, Diagnostic Checks and Model Design.....	18
4.1 Univariate analysis – Descriptive Statistics	18
4.2 Univariate analysis - Correlations	19
5. Empirical Results	20
6. Conclusions.....	22
7. Bibliography.....	23
Appendix.....	26
i. Table 1 – Variables Description:	26
ii. Table 2 – Descriptive Statistics:	26
iii. Table 3 - Correlations:	27
iv. Table 4 – Regression Results (Panel A and Panel B):	27

1. Introduction

The current research study will investigate the effect of female directors on the Informativeness of Stock Prices and specifically on the tendency to delay the release of bad news (Kothari, Shu and Wysocki, 2009). Board diversity has been a very popular subject the last few years and the literature has examined gender diversity on many aspects of corporate decision-making, in particular. Overall, the literature documents a positive effect of female representation on the board of directors and a number of financial and market characteristics.

For example, Bear et al. (2011) examined the impact that boardroom diversity and its gender composition have on the Corporate Social Responsibility and company's reputation. As per the authors, prior literature seems to show a positive effect of female directors on the CSR. The authors confirm the existing literature, and they show that the Corporate Social Responsibility ratings are positively affecting the firm's reputation and also mediated the relationship between the number of female directors on the board and the company's reputation.

Hafsi and Turgut (2013) seek to answer two main questions. Firstly, they want to clarify what "diversity" stands for in the strategic management literature and secondly, they try to determine the relationship between the diversity of the board of directors and the corporate social performance. In their results they state that, both gender and age have a significant effect on social performance where other measures as external directors do not. In conclusion, they show that variables that describe the diversity in boards (i.e. gender, age) seem to have a higher effect on the corporate social

performance, compared to variables that describe the diversity of boards (i.e. size, independence).

Furthermore, Jo and Harioto (2011) investigated the effects of internal and external corporate governance on social responsibility engagement and the firm value. For their research they used Corporate Social Responsibility measures from KLD, RiskMetrics and IBES (such as compensation, ownership, independence of the board etc). Their results showed that several corporate governance characteristics are positively related to CSR engagement. Moreover, it seems that CSR engagement is improving a company's value. Additionally, they suggest that out of internal and external governance and monitoring mechanisms used, security analysts have the most significant effect on a firm's value. Lastly, they conclude that managers should concentrate on CSR activities (such as diversity, quality of products, employee relations) within the company as they do have a significant effect on its value.

Liu, Wei and Xie (2013) used a dataset that consists of 2000 listed companies between 1999-2011. To measure performance, they used ROA and ROS and the results showed that, female directors are significantly affecting the company's performance in a positive way. Additionally, they stated that boards with three and more female members have a greater impact compared to those that have two or less female directors in them.

Research in general shows that board gender diversity has a positive impact on firm CSR activities, as shown by Jo and Harioto (2011), enhances earnings quality and reduces earnings management (Gull et al. (2017)), increases monitoring and improves corporate governance (Adams and Funk (2012)) and improves firm performance (Minguez-Vera (2007)). These effects have been attributed to female directors tend to

be more conservative compared to male directors and following a different way of thinking.

We build on the above literature to examine whether gender diversification reduces the delay in the release of bad news. We build on Kothari, Shu and Wysocki (2009) to argue that this tendency should be moderated by gender diversity. Our results are consistent with this expectation. Specifically, we find that female directors do not disclose their bad news timely enough, which contradicts with the existing literature which shows that women tend to be more conservative compared to men.

The current paper is followed by Section 2, where the existing literature will be examined, followed by Section 3 where the Research Design, sample and model used of the model will be presented. Moreover, at the next section, Section 4, there will be the descriptive statistics, diagnostic checks and model designed followed by Section 5 with the empirical results of the study. Lastly, on Section 6 are presented the Conclusions and Limitations of the paper. Furthermore, at the end of the current research paper, Bibliography and the Appendices can be found.

2. Literature Review

2.1 Board Diversity

As board diversity has been a “trend” the last few years in the corporate world, there is a plethora of studies that have examined the effect of boardroom’s diversity on firm’s performance, informativeness of stock prices etc.

On Adams and Funk (2012) examined through a survey, based on ten basic human values that are globally recognized, ran among directors the core values and risk attitudes among male and female directors. Their results indicate that there is difference on the above based on the gender of the director. Moreover, they show that women tend to be more kind but less power-oriented in comparison to male directors. Lastly, on their conclusions, they express the opinion that women directors should not lead the risk-averse part of the decision-making of a company as female directors tend to be more risk-loving and less traditional compared to men part of the board.

Another interesting article from Gull et al. (2017), the authors have examined the relationship among female directors and a company’s earning management. At first, their results indicate a negative effect of women part of the boardroom and their magnitude of earnings management. As a second step, they have took in consideration statutory attributions and demographic characteristics of women directors and their results showed that the effect is indeed positive. Lastly, the authors conclude that female directors that are part of the boardroom should not be selected because of gender quotas but the decision should be based on the demographic and statutory attributes during the selection process.

Additionally, on Sun, Liu and Lan (2010) research paper, the authors have used a 525 firm-year observations between 2003 – 2005. Their results show that the gender on

independent audit committees have a small effect on the constrain of earnings management. On the other hand, Srinidhi, Gul and Tsui (2011) are examining if US companies that have gender-diverse boards seem to have a higher of quality earnings management. Eventually, their results have shown that their main hypothesis is confirmed.

Huang and Kisgen (2012) in their article, they are examining the corporate financial and investment decisions made by women executives compared to the ones made by male executives. Their results indicate that women executives are less likely to make acquisitions or issue debt compared to males. Also, investors seem to react more favorably towards significant corporate financial decisions taken by firms with female executives. Additionally, announcement returns seem to be higher regarding acquisitions and debt offerings in firms with female executives. These results indicate that men are overconfident relative to women as they are providing narrower earnings forecasts and are less likely to exercise options early.

Furthermore, Francis et al. (2015) in their paper are examining whether there are significant differences between male and female CFOs in the choice of accounting conservatism. Their results indicate that there is a positive relationship between female CFOs and accounting conservatism in firms with higher litigation risk, default risk, management turnover risk and systematic risk. They also examined the effect of risk aversion on accounting conservatism. They find that, women CFOs are less likely to choose equity-based compensation. Also, a male-to-female CFO transition seems to change firms' investment patterns from a more-intangible-assets approach to a more-tangible-assets one. Lastly, it seems that female CFOs tend to reduce dividend payouts.

Campbell and Minguez-Vera (2007) investigated the relationship between gender diversity in the board of directors and firm's financial performance in Spain. The authors find that the existence itself in the board of directors does not affect the firm's value. Though, they find that diverse-gender boards are affecting positively the firm's value. Hence, Spanish companies should prioritize the balance between men and women in corporate boards. Lastly, they also show that firm's value is not affecting the women's presence nor gender diversity in the board.

Chen, Leung and Goergen (2017), have investigated if women independent directors will be more likely to impose high dividend payouts. Their results indicate that companies with a higher proportion of female directors tend to have greater dividend payouts. Isidro and Sobral (2015) have investigated the effects, direct and indirect, of female directors on a company's value. Their results showed that there is no evidence that women presence on the board of directors have a significant effect on a company's value. On the other hand, they find that their presence has indirect effects as it positively affects financial performance, social and ethical compliance which are factors that are affecting the company's value. To conclude, as per their results, they suggest that a higher women representation on the board of directors, will indirectly affect a firm's value.

In addition to the above, Adams and Ferreira (2009) showed that female directors have a substantial and value-relevant effect on board structure. Also, their results indicate that gender-diverse boardrooms allocate more effort to monitoring as male directors seem to have more attendance problems compared to female, as per a sample of US firms they used in their research. Additionally, they also find that CEO turnover is closely associated with stock performance and the board of directors tend to receive more equity-based compensation in company's that have more gender-diverse

boardrooms. Lastly, they state that their results indicate a negative effect on a company's value, for well-governed firms due to the mandating gender quotas.

Moreover, Ahern and Dittmar (2012) in their article they examine the impact on firm valuation of gender quotas on board of directors. They find that, this constrain caused from the existence of the quotas, caused a significant drop in the stock price at the date of the announcement of the law and there was also a large decrease in Tobin's Q for the next years. Also, they find that, this limited pool of new women directors led to a younger and less experienced boardroom, hence increases in leverage and acquisitions and deterioration in operating performance.

Lastly, on Gul, Srinidhi and Ng (2011) used a sample of initially 12,435 firm-year observations of boardroom's characteristics, including gender, and is examined between 2001 – 2006. They excluded firms that are operating in the utilities and financial sectors and after removing observations with bank control variables, they end up with 5,489 observations. Lastly, the authors find that there is a positive relationship between gender-diverse boards and the stock price informativeness and this is achieved by increasing voluntary disclosures in larger firms and also increasing incentives for private information collection in smaller firms.

2.2 What affects information quality

The literature has long identified that incentives prompt managers to delay the release of bad news but more timely release good news.

The accounting literature examining the factors affecting the quality of a firm's information environment. Information asymmetry increases the costs borne by investors when transacting in a company's stock. This adverse selection will typically reduce the willingness of investors to transact in the stock, reducing, in turn, its liquidity

(Copeland and Galai 1983; Kyle 1985; Glosten and Milgrom 1985). In contrast, a commitment to enhanced disclosure reduces information asymmetry, decreasing the discount required by investors to hold the stock, lowering, in turn, the firm's cost of capital (Diamond and Verrecchia 1991). But although managers may face incentives to improve the information environment agency theory suggests that this tendency may be asymmetric in the sense that their personal incentives may prompt them to timely release good news but delay the disclosure of bad news.

Although some situations may encourage managers to share negative news as soon as possible, they may have also reasons to hold back. One reason might be that they have concerns about their career and future prospects. This, would cause them to take a gamble and delay sharing the bad news, hoping that potential positive events will overshadow the negative news. These concerns may include the impact that disclosure could have on their compensation in the short term, as in the long run. (Nagar (1999), Nagar, Nanda and Wysocki (2003)). The long run effects on a manager's career can be e.g. promotion, employment opportunities both inside and outside the company, dismissal, losing pension benefits and losing the directorship. Hermalin and Weisbach (2007) established a structured model that correlates managers' career anxiety to disclosures and hypothesized that "owners aim to evaluate the CEO's competency based on the information at hand and replace them if they fall short of expectations". Their findings suggest that the most effective disclosure strategy is not entirely being transparent, particularly when it comes to negative information. Verrecchia (2001) supports this notion in his investigation of the literature on disclosure. Besides the career-related drawbacks, managers also face other costs, such as less bonus pay, less stock options and reduction on wealth due to the decline in stock prices, following the disclosure of bad news. Managers, often

feel motivated to keep bad news to themselves and hope things will get better before they have to share the bad information. This is supported by a survey conducted by Graham, Harvey and Rajgopal in 2005, which showed that some CFOs admit to delaying the release of bad news in the hopes that they won't have to share it if the company's situation improves by the time the news become public.

Along this line of thinking McNichols and O'Brien (1997) build on this idea to argue that analysts responding to the needs of the firms they follow tend to delay the release of bad news by actually not timely releasing an unfavorable recommendation.

Kothari et al. (2009) examine this issue more directly by examining the market reaction to the disclosure of bad news. They show that the market reaction to the release of good news is weaker than to bad news. They interpret these results, as consistent with positive news, being disclosed earlier where bad news will get hold until it is inevitable to release them to the investors.

2.3 Motivation and Main Hypothesis

In this paper we combine the literature on the positive effect of gender diversity and the firm's tendency to delay the release of bad news. We posit that the delay in disclosing bad news is moderated with the presence of female directors in the boardroom. We employ the design in Kothari et al. (2009) and expect that in the presence of female directors, the announcement of negative earnings elicits a less negative market reaction:

Main Hypothesis: "The presence of female directors in the boardroom is associated with weaker market reaction to the release of bad news".

3. Research Design

3.1 Dataset

For the execution of the current study, the initial sample consists of 6,359 US Companies and the analysis is taking place for the period of 2010 – 2018. The surprise history was collected from IBES where the announce dates between the study's sample were collected along with the actual values and the consensus forecast. We used that to calculate the magnitude of the news and kept only those with negative values. Initially, the dataset consisted of 39,630 observations but the selection of only those observations with negative values resulted in 16,335 observations. Of these, 14,046 observations had price information to compute the market return on the announcement.

Moreover, from MSCI GMI Ratings, we exported the percentage of female directors for the companies in our sample between 2010 – 2018. Furthermore, from Compustat, we collected the Total Assets which will be used to take into account the Size of the firms we are investigating in the current analysis. Control variables are measured at the end of the fiscal year prior to the announcement.

3.2 Variables Description

For the purposes of the analysis of this study, we defined that:

- Magnitude of the earning surprise (MAGN) has been calculated as below:

$$\frac{Actual\ Value_t - Consensus\ Forecast_t}{|Consensus\ Forecast_t|}$$

- Total Assets were transformed into the Natural Logarithm, LTA.
- Calculated the product of Magnitude and Female % of Directors, FEM_MAGN.
This will be used to examine the Kothari effect and to check whether it is decreasing in the presence of female directors.

The dependent variable of the current study is Cumulative Abnormal Return (CAR). The CAR has been calculated using Event by WRDS and we used the Official Tickers and Announce Date and have exported the Cumulative Abnormal Returns.

- CAR is calculated:

$$CAR_{i,t} = \sum_{t=t_1}^{t_2} AR_{it}$$

- where, Abnormal Return (AR) is the difference of the actual return and the expected return in period t:

$$AR_{i,t} = R_{i,t} - E[R_{i,t}]$$

CAR was calculated based on the Market Model. To do that, we used EPS as the event. The estimation parameters used are as follows: Estimation Windows is 100 days, Minimum Number of Valid Returns is 60, Number of trading days is 10, Event Window starts -1 day and Event Window ends +1 day.

The description of the variables used can be found under Appendices, Table 1.

3.3 Empirical Model

In this stage of the study, the empirical model used for its analysis is as follows. For the purposes of the analysis, we are using Panel Data Estimation regression and CAR is the depended variable. The independent variables are the Magnitude of Stock Prices, the Female % of Directors, the Total Assets and Product of Female % and Magnitude.

To test if the presence of female directors weakens the market reaction to negative earnings as evidence of the more timely (gradual) release of bad news, we run the following model:

i =Company ID

t =Year

$$CAR_{i,t} = \beta_0 + \beta_1 * MAGN_{i,t} + \beta_2 * FEM_P_{i,t} + \beta_3 * LTA_{i,t} + e \quad (1)$$

In the above equation, a positive β_2 will be consistent with our expectation. To test if the effect of female directors on the timely release of negative news increases with the magnitude of the news, we run the following model:

$$CAR_{i,t} = \beta_0 + \beta_1 * MAGN_{i,t} + \beta_2 * FEM_P_{i,t} + \beta_3 * FEM_MAGN_{i,t} + \beta_4 * LTA_{i,t} + e \quad (2)$$

In this specification, a positive β_3 will indicate that the greater the magnitude of bad news, the greater the effect of female directors on its more timely release.

4. Descriptive Statistics, Diagnostic Checks and Model Design

For the purposes of the regression analyses, we used three datasets: the original sample, the sample with winsorized variables and one where observations with large values were deleted.

1. Created **Dataset 1** where it includes the Outliers, no changes have been made.
2. Created **Dataset 2** where we eliminated the Outliers. To do that, we used the 99 quantile of MAGN and it was -9.43. Any value under MAGN that was less than -9.43 was removed from the dataset.
3. Created **Dataset 3** where we have winsorized the Outliers. To do that, we used the 99 quantile of MAGN and it was -9.43. Any value under MAGN that was less than -9.43 was replaced with -9.43 in the dataset.

4.1 Univariate analysis – Descriptive Statistics

The Descriptive Statistics Table can be found under Appendices, Table 2. This table was run using the third dataset of the current study. It shows the total number of observations per variable, the mean and median, the standard deviation, the minimum and maximum values. Furthermore, it shows the quantiles. Note that by construction, the value of MAGN is negative as for this study we only retained observations with negative earnings. The percentage of female directors on board has a mean value of 12% with the 75th percentile at 18.2%.

4.2 Univariate analysis - Correlations

An important stage of the diagnostic checks is the check of how correlated the variables are, used in the dataset.

Table 3 in the appendix shows the correlation results. The analysis shows no significant correlation between the independent variables of the model and the dependent variable. The dependent variable of the model, CAR, is negatively correlated with MAGN and FEM_P where it is positively correlated with LTA. Furthermore, MAGN is positively correlated with FEM_P and LTA. Lastly, FEM_P is positively correlated with LTA.

5. Empirical Results

For the empirical results, we will be using the datasets as described above. We show results based on three different models: with outliers, eliminated outliers and winsorized. Panel A of table 4 shows the results of equation (1) and Panel B those of equation (2) that also includes the interaction FEM*MAGN.

As expected MAGN is negatively associated with CAR in two of the three models shown in Panel A of table 4, but the coefficient is only significant in model three (that is based on the original sample). Importantly, results show that for all three samples used, the percentage of female directors on the Board, FEM_P, is actually negatively associated with CAR. This result is not consistent with our expectation as it suggests that in the presence of female directors firms tend to delay the announcement of bad news more. Finally, larger firms seem to release bad news more timely as evidenced by the positive coefficient. This is consistent with evidence in the literature showing that bigger firms also have better information environments.

Specifically, our results suggest that a 1% decrease in the magnitude of the earnings surprise, is associated with a decrease in CAR by -0.1% for Model 1 and -0.09% for Model 3. Similarly, a 1% increase in the female directors percentage in the boardroom decreases CAR by approximately -0.02% in all models.

In Appendices, Table 4, Panel B includes all the abovementioned models and the respective independent variables. The difference between Panel A is that now we are including the interaction variable for Female % and Magnitude. Moreover, from the results we can also observe the statistical significance of each independent variable.

In Panel B of table 4, we show results when the model is extended to include the interaction between female directors and the magnitude of the earnings surprise.

Consistent with the evidence in Panel A, more negative news (evidenced by a more negative MAGN) is associated with more negative market reaction. FEM_P continues to be negatively correlated with market reaction in all three models. The interaction between FEM_P and MAGN, FEM*MAGN, although positive, is not significant in any of the models. Finally, in all three models, LTA has a positive effect on CAR.

To understand the economic significance of results, we note that a 1% decrease in Negative Magnitude decreases CAR by -0.17% under Model 1 and -0.19% under Model 3. FEM_P has a negative effect in CAR under all three models used, and it seems that 1% increase in the female presence on the boardroom decreases CAR by -0.2% under all three models, similarly, to Panel A.

6. Conclusions

The main aim of the current study is to examine the effect of female presence in the board of directors, in bad news. In contrast with the existing literature, it seems that we find in all models used for the purposes of the analysis that the presence of female directors in the boardroom has a negative effect on CAR which suggests that in the presence of female directors, firms do not disclose their bad news timely enough. This result is counter to our expectations that were based on the research showing that women tend to be more traditional, conservative and less risk-averse compared to men and hence, should be more likely to disclose more. This result may be affected by endogeneity issues, as it is likely that female directors also affect firm performance. Future research should re-examine this issue correcting for this possibility.

7. Bibliography

- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of financial economics*, 94(2), 291-309.
- Adams, R. B., & Funk, P. (2012). Beyond the glass ceiling: Does gender matter?. *Management science*, 58(2), 219-235.
- Ahern, K. R., & 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.
- Aouadi, A., & Marsat, S. (2018). Do ESG controversies matter for firm value? Evidence from international data. *Journal of Business Ethics*, 151, 1027-1047.
- Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of business ethics*, 97, 207-221.
- Beji, R., Yousfi, O., Loukil, N., & Omri, A. (2021). Board diversity and corporate social responsibility: Empirical evidence from France. *Journal of Business Ethics*, 173, 133-155.
- Ben-Amar, W., Francoeur, C., Hafsi, T., & Labelle, R. (2013). What makes better boards? A closer look at diversity and ownership. *British Journal of Management*, 24(1), 85-101.
- Bernardi, R. A., & Threadgill, V. H. (2011). Women directors and corporate social responsibility. *EJBO: Electronic Journal of Business Ethics and Organizational Studies*.
- Buchanan, B., Cao, C. X., & Chen, C. (2018). Corporate social responsibility, firm value, and influential institutional ownership. *Journal of Corporate Finance*, 52, 73-95.
- Campbell, K., & Mínguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of business ethics*, 83, 435-451.
- Chen, J., Leung, W. S., & Goergen, M. (2017). The impact of board gender composition on dividend payouts. *Journal of Corporate finance*, 43, 86-105.
- Clementino, E., & Perkins, R. (2021). How do companies respond to environmental, social and governance (ESG) ratings? Evidence from Italy. *Journal of Business Ethics*, 171, 379-397.
- Dowling, M., & Aribi, Z. A. (2013). Female directors and UK company acquisitiveness. *International Review of Financial Analysis*, 29, 79-86.
- Duque-Grisales, E., & Aguilera-Caracuel, J. (2021). Environmental, social and governance (ESG) scores and financial performance of multinationals: Moderating effects of geographic international diversification and financial slack. *Journal of Business Ethics*, 168(2), 315-334.

Duyvejonck, B. (2021). 'One of the Guys': Women Leaders and Tokenism in Male-Dominated Environments.

Francis, B., Hasan, I., Park, J. C., & Wu, Q. (2015). Gender differences in financial reporting decision making: Evidence from accounting conservatism. *Contemporary Accounting Research*, 32(3), 1285-1318.

Gillan, S. L., Koch, A., & Starks, L. T. (2021). Firms and social responsibility: A review of ESG and CSR research in corporate finance. *Journal of Corporate Finance*, 66, 101889.

Gull, A. A., Nekhili, M., Nagati, H., & Chtioui, T. (2018). Beyond gender diversity: How specific attributes of female directors affect earnings management. *The British Accounting Review*, 50(3), 255-274.

Gul, F. A., Srinidhi, B., & Ng, A. C. (2011). Does board gender diversity improve the informativeness of stock prices?. *Journal of accounting and Economics*, 51(3), 314-338.

Hafsi, T., & Turgut, G. (2013). Boardroom diversity and its effect on social performance: Conceptualization and empirical evidence. *Journal of business ethics*, 112, 463-479.

Ho, S. S., Li, A. Y., Tam, K., & Zhang, F. (2015). CEO gender, ethical leadership, and accounting conservatism. *Journal of Business Ethics*, 127, 351-370.

Huang, J., & Kisgen, D. J. (2013). Gender and corporate finance: Are male executives overconfident relative to female executives?. *Journal of financial Economics*, 108(3), 822-839.

Isidro, H., & Sobral, M. (2015). The effects of women on corporate boards on firm value, financial performance, and ethical and social compliance. *Journal of business ethics*, 132, 1-19.

Jo, H., & Harjoto, M. A. (2011). Corporate governance and firm value: The impact of corporate social responsibility. *Journal of business ethics*, 103, 351-383.

Kothari, S. P., Shu, S., & Wysocki, P. D. (2009). Do managers withhold bad news?. *Journal of Accounting research*, 47(1), 241-276.

Labelle, R., Makni Gargouri, R., & Francoeur, C. (2010). Ethics, diversity management, and financial reporting quality. *Journal of business ethics*, 93, 335-353.

Levi, M., Li, K., & Zhang, F. (2014). Director gender and mergers and acquisitions. *Journal of Corporate Finance*, 28, 185-200.

Liu, Y., Wei, Z., & Xie, F. (2014). Do women directors improve firm performance in China?. *Journal of corporate finance*, 28, 169-184.

Lückerath-Rovers, M. (2013). Women on boards and firm performance. *Journal of Management & Governance*, 17, 491-509.

Rao, K., & Tilt, C. (2016). Board composition and corporate social responsibility: The role of diversity, gender, strategy and decision making. *Journal of business ethics*, 138, 327-347.

Srinidhi, B. I. N., Gul, F. A., & Tsui, J. (2011). Female directors and earnings quality. *Contemporary accounting research*, 28(5), 1610-1644.

Sun, J., Liu, G., & Lan, G. (2011). Does female directorship on independent audit committees constrain earnings management?. *Journal of Business Ethics*, 99, 369-382.

CHRISTODOULOS GEORGILOU

Appendix

i. *Table 1 – Variables Description:*

<u>Variable</u>	<u>Definition</u>
Dependent Variable:	
Y = Cumulative Abnormal Return (CAR)	It is the sum of the difference between Actual Returns and Expected Returns.
Independent Variables:	
Magnitude of Stock Prices (MAGN)	The difference of Actual Return and Consensus Forecast over the absolute value of the Consensus Forecast.
Female % of Directors (FEM_P)	The female percentage of directors.
Total Assets (LTA)	Natural Logarithm of the Total Assets of the Firm.
(FEM_MAGN)	Product of Female % and Magnitude of Returns.

ii. *Table 2 – Descriptive Statistics:
Using the Winsorized model (dataset 3):*

	CAR	MAGN	FEM_P	LTA
N	14,046	16,335	8,038	10,775
Mean	-0.0194	-0.4463	0.1179	3.0851
Min	-0.8523	-9.4323	0	-1.1079
Max	1.9292	0	1	6.5116
STD	0.0865	1.2699	0.1079	1.0033
p1	-0.2704	-9.4323	0	0.7779
p25	-0.0547	-0.2763	0	2.4170
p50	-0.0142	-0.0751	0.1111	3.1025
p75	0.0195	-0.0214	0.1818	3.7129
p99	0.2097	-0.0007	0.4000	5.5940

iii. *Table 3 - Correlations:*
Using the Winsorized model (dataset 3):

	CAR	MAGN	FEM_P	LTA
CAR	1.0000			
MAGN	-0.0099 (0.0859)	1.0000		
FEM_P	-0.0143 (0.4320)	0.0521 (0.0000)	1.0000	
LTA	0.0424 (0.0005)	0.0655 (0.0000)	0.2666 (0.0000)	1.0000

iv. *Table 4 – Regression Results (Panel A and Panel B):*

Panel A			
	Dataset 1: Winsorized	Dataset 2: Eliminated Outliers	Dataset 3: With Outliers
	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
Intercept	-0.034737 (0.000)	-0.0339523 (0.000)	-0.0347761 (0.000)
MAGN	-0.001022 (0.340)	0.0005408 (0.715)	-0.0009123 (0.098)
FEM_P	-0.0195529 (0.033)	-0.019424 (0.035)	-0.0195402 (0.033)
LTA	0.0048093 (0.000)	0.0046428 (0.000)	0.0048158 (0.000)
Adj. R	0.0022	0.0020	0.0025
# Obs	6,639	6,609	6,639

Panel B			
	Dataset 1: Winsorized	Dataset 2: Eliminated Outliers	Dataset 3: With Outliers
	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
Intercept	-0.0349214 (0.000)	-0.0340418 (0.000)	-0.0351267 (0.000)
MAGN	-0.0016672 (0.284)	0.0000736 (0.972)	-0.0019645 (0.042)
FEM_P	-0.0181069 (0.058)	-0.0184729 (0.056)	-0.0169952 (0.070)
FEM*MAGN	0.0062678 (0.568)	0.0047393 (0.751)	0.0102594 (0.185)
LTA	0.0048112 (0.000)	0.0046352 (0.000)	0.0048274 (0.000)
Adj. R	0.0021	0.0019	0.0026
# Obs	6,639	6,609	6,639