# WOMEN ON CORPORATE BOARDS AND THE INCIDENCE OF RECEIVING A 'STRIKE' ON THE REMUNERATION REPORT

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#### **Abstract**

This paper examines the effect of one form of board diversity on the incidence of receiving a 'strike' (i.e., receiving 25 percent or more 'no' votes) on the remuneration report by ASX companies in Australia. More specifically, the research hypothesises that there is a negative association between women presence on corporate boards and the likelihood of receiving a 'strike' on remuneration reports. Using the Financial Review Business Intelligence's remuneration report voting database, this study constructs a matched-pair sample of 314 strike firms and 314 control firms from 2011 to 2013. After controlling for other 'strike' related factors, the results suggest a significant association between the presence of at least one woman on the board and a lower incidence of receiving a 'strike'. This finding contributes to the research by showing that the presence of female directors is likely to enhance the monitoring function of the board and thus lower the likelihood of receiving a 'strike' on the remuneration report.

Keywords: Gender Diversity, Women on Boards, 'Strike', Remuneration Report

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#### 1. Introduction

The benefits of having women present on corporate boards have been well documented (see, for example, Bilimoria and Wheeler, 2000; Fondas and Sassalos, 2000; Carter et al., 2003; Huse and Solberg, 2006). Erhardt et al. (2003) in their study of 127 large US companies find that female directors have a positive influence on the firms' financial performance, measured by return on assets and investment. A similar finding, but based on Spanish small and medium-size enterprises (SMEs), is reported in Martin-Ugedo and Minguez-Vera (2014). Higgs (2003) suggests that gender diversity improves board effectiveness, while Adams and Ferreira (2009) provide empirical evidence which shows that the presence of women on corporate boards has a significant impact on board governance (in the form of meeting attendance), and that CEO turnover is more sensitive to stock market performance in companies with more gender diverse boards.

The Australian Report of the Industry Task Force on Leadership and Management (Karpin, 1995) finds that a well-balanced board that includes women directors reduces the likelihood of corporate failure. Moreover, psychology and sociology literatures advocate that gender diversity in a group setting enhances group decision-making efficacy (Lee and Farh, 2004; Eisenhardt et al., 1997). More specifically, the presence of women at board level may create group heterogeneity, and prior literature

suggests that heterogeneous groups are more likely to generate a diverse set of solutions to tasks that may lead to higher quality decisions (Umans et al., 2008; Ely and Thomas, 2001; Jehn et al., 1999). Cook and Glass (2011) investigate the relationship between the appointments of women to boards and shareholder value and find that the announcement of women into board position may lead to positive returns on shareholder value. In a recent US study, Abbott et al., (2012) find that the presence of women on corporate boards enhances the overall board's mental independence and monitoring function.

Despite these benefits, the percentage of female directors in Australian companies has been low. Following the inclusion of a requirement for gender diversity in the ASX Corporate Governance Council's governance principles (2010)corporate recommendations, the number of women on ASX 200 corporate boards has gradually increased, from 10.7 percent in 2010 to 20 percent as at 31 March 2015 (the Australian Institute of Company Directors realtime data). With this increased presence of women on corporate boards over the past few years and the findings of existing literature (Abbot et al., 2012; Adams and Ferreira, 2009, amongst others), it is timely to investigate whether their presence has an effect on a recent Australian government initiative to curb excessive executive remuneration - the Corporations Amendment (Improving Accountability on Director and Executive Remuneration) Act 2011 (Remuneration Amendment Act, hereafter). The new

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legislation, widely referred to as the 'two strikes' rule, empowers shareholders to voice their concerns about excessive executive remuneration through dissent votes at the company's annual general meeting (AGM). If the company receives 25 percent or more dissent votes from shareholders on the remuneration report, it receives a 'strike', and two consecutive strikes (hence, 'two strikes') may potentially result in the board members being replaced (except the CEO).

As the issue of receiving dissent votes is related to shareholders' concerns on remuneration reports, gender diversity literature suggests that diverse boards are likely to deal better with these shareholders' concerns (see, for example, Biggins, 1999). Thus, this study seeks to test the association between the presence of female directors and the likelihood of receiving a 'strike' on the remuneration report.

To achieve this research objective, the study uses a sample of 314 firms that received a 'strike' from years 2011 to 2013. Following Monem and Ng (2013) and Faghani et al., (2015), the present study constructs a sample of control firms matched in terms of the Global Industry Classification Standard (GICS) using the economic sector classifications, operating revenue, and fiscal year-end for each sample year. Abbott Consistent with et al's (2012)recommendation on the treatment of case/control design, a conditional logistic regression analysis is used to test the hypothesis. Our finding suggests that woman's presence on corporate boards is associated with a lower incidence of receiving a 'strike' on the remuneration report.

Existing 'say on pay' literature has traditionally focused on the pay-performance link (Clarkson et al., 2011; Ferri and Maber, 2013; Monem and Ng, 2013). This research contributes to the literature by showing that an observable measure of board diversity (i.e., the presence of women on corporate boards) is negatively associated with the likelihood of receiving a 'strike' on the remuneration report. The study is consistent with Abbott et al's (2012) assertion that the presence of women on corporate boards enhances mental independence and heterogeneity of a board. Thus, more diverse boards may facilitate communication and exchange of better solutions/outcomes that may not be available in homogeneous boards (Ely and Thomas, 2001). Our result is also aligned with Carter et al's (2003) finding which shows that diverse boards are more likely to be activist boards.

This study also contributes to the gender diversity literature. Unlike existing literature which focuses on the impact of female directors on firm financial performance and other related issues (See, for example, Carter et al., 2003; Erhardt et al., 2003; Abbot et al., 2012), this study investigates the relationship between women on corporate boards and the likelihood of receiving a 'strike' on the remuneration report. The result of the study is consistent with prior studies which show that the presence of women on boards enhances shareholders'

confidence on decision making ability of the board (Ryan and Haslam, 2005; Furtado and Rozeff, 1987).

The remainder of the paper is organised as follows. The next section provides a brief background on the "two strikes" rule. Section 3 reviews relevant literature and develops the hypothesis of this study. Section 4 describes the research methodology. This is followed by the analysis of results in senction 5. A robustness check is presented in Section 6. Section 7 draws some conclusion from the study.

# 2. Background on the 'two strikes' rule

Executive remuneration has been a topic of considerable debate in recent years. A perceived inability of corporate boards to set executive compensation effectively has triggered governments of many advanced countries to undertake regulatory reforms in order to curb excessive executive pay (Chalmers et al., 2006). Since 1998, the Australian Government has embarked on a comprehensive program of corporate law reforms aimed at improving corporate governance practices and transparency. With the introduction of the Company Law Review Act 1998 (CLARA98), companies were required to disclose information on details of the options granted as part of the remuneration of directors and the five most highly remunerated officers (Section 300 of the Corporations Act). Following the collapse of HIH (Australia's second largest insurance company) in 2001, Australian regulators undertook further reforms strengthen corporate governance practices. Corporate Law Economic Reform Program (Audit Reform & Corporate Disclosure) Bill (or CLERP 9 Bill) was passed on 4 December 2003 and became law as of July 1 2004. The Act requires listed companies to disclose to shareholders the details of directors' and executives' salaries and bonuses in a clearly identified and audited remuneration report. A non-binding shareholder vote on the remuneration report was also introduced. The non-binding nature of the shareholder approval means that a majority 'no' will not prohibit the directors from implementing the proposed remuneration policy outlined in the remuneration report. In other words, the votes under the legislation were simply 'advisory' only.

Following the onslaught of the recent global financial crisis, the Australian government introduced the Remuneration Amendment Act with a view to further improving the accountability of executive pay. Unlike the previous non-binding shareholder votes, this Act has specific and predictable outcomes (Monem and Ng, 2013). Under the new legislation, if the company's remuneration report receives 25 percent or more 'no' votes from shareholders, the company will receive 'first strike', and the board is required in the subsequent remuneration report to explain how shareholder concerns are addressed. If during the following year, the company's

remuneration report also receives 25 percent or more 'no' votes then the company will receive a 'second strike'. When a 'second strike' occurs, the shareholders will vote to decide whether all the directors (except the CEO) need to go through the reelection process. This latest reform aims at strengthening corporate governance in terms of how corporate boards set executives compensation and engage with shareholders (Productivity Commission, 2009).

# 3. Prior literature and hypothesis development

MacMillan (2012) suggests that the remuneration report should not create a conflict of interest among shareholders. Rather, a well-designed remuneration structure and its effective disclosure facilitate alignment of interest of shareholders. Since the 'twostrike rule' is a relatively new regulation, the literature in this area is scant. To the best of our knowledge, to date, the only empirical, archival study investigating the 'two strikes' rule and pay-performance link is Monem and Ng (2013). In that study, the authors investigate whether the shareholders are judicious while exercising the power of dissent votes under the 'two-strike rule'. They find that the pay-performance link of 2011 (the first year in which the law became effective) 'strike' firms are not significantly and positively related to the stock returns, however, it improves in 2012. The authors conclude that the shareholders of 2011 'strike' firms may have become over-enthusiastic in their voting power, but exercise their power more judiciously in 2012.

An agency issue arises due to the association between receiving a 'strike' on the remuneration report and the shareholder dissatisfaction over directors' pay. Agency theory suggests that principals and agents have different self-interests to maximize their utility, thus creating an agency problem (Jensen and Meckling, 1976). The agency perspective further argues that the board may undertake strategic decisions such as board restructuring (enhancing diversity) to minimise the agency cost and overcome the agency problem (Johnson et al., 1993). While shareholders (principals) are profit oriented, prior literature often relates better financial performance of a firm as a symbol of a healthy agency relationship in the firm (Agarwal and Knoeber, 1996). A large volume of gender diversity literature argues that companies would benefit from the presence of women on corporate boards (Huse and Solberg, 2006). Within this rich literature, a substantial amount of gender diversity literature focuses on the association between the presence of women on boards and the firms' financial performance (Erhardt et al., 2003; Carter et al., 2003, Martin-Ugedo and Minguez-Vera, 2014, amongst others). However, a mixed finding is reported in the literature, with some studies showing that female representation on corporate boards is

positively linked to firms' performance (Erhardt et al., 2003; Bonn, 2004; Nguyen and Faff, 2007), while others report a negative or no effect on firm performance (Adams and Ferreira, 2009; Almazan and Suarez, 2003; Farrell and Hersch, 2005; Francoeur et al., 2008; Wang and Clift, 2009; Carter et al., 2010).

While the presence of women on boards may not improve a firm's financial performance, Adams and Ferreira (2009) find that the presence of female directors enhances the monitoring and oversight role of the board. Abbott et al. (2012) argue that the presence of female directors enhances the board's ability to maintain an attitude of mental independence. In a study of 278 annual and 187 quarterly financial restatement in the US, Abbott et al., (2012) find that there is a significant association between the presence of female directors and a lower incidence of financial restatement. Based on prior literature, one may argue that the presence of female directors potentially reduces the agency problem.

In the pay to performance literature, Clarkson et al., (2011) find that increased shareholder oversight (through 'no' votes on the remuneration report under the non-binding shareholder voting regime) improves the pay-performance link, and makes the executives pay setting process more accountable. In a U.S. study, Adams and Ferreira (2009) find that the presence of female directors enhances the overall monitoring function of the board. Their result also shows that firms with more diverse boards offer their executives with more performance incentives – in the form of equity-based compensation.

With the enactment of the Remuneration Amendment Act, one can assume that companies which receive a 'strike' on their remuneration reports are because of their shareholders dissatisfaction over the executive compensation. The presence of women on boards enhances the oversight role of the board (Adams and Ferreira, 2009; Srinidhi et al., 2011; Abbott et al., 2012) and their presence is an essential ingredient in attaining and retaining shareholders' confidence and hence reducing agency problems (Ryan and Haslam, 2005). The following hypothesis is developed:

There is a negative association between the incidence of receiving a 'strike' on the remuneration report and the presence of female directors.

# 4. Research methodology

# **4.1 Data**

With the enactment of the Remuneration Amendment Act, a total of 111 firms received a first 'strike' in that year. Seven firms are excluded from the sample due to missing data. Thus, the remaining 104 firms that received a 'strike' in 2011 are included in this study. In 2012, a total of 122 firms received a 'strike'; however, due to missing information on company

annual reports, 14 firms are excluded from the 2012 sample. The remaining 108 firms that received a 'strike' in 2012 are included in the final sample. In 2013, a total of 102 firms received a 'strike', making the total sample of 314 firms between 2011 and 2013. The 'strike' firm information is collected from the Financial Review Business Intelligence Remuneration Report Voting database. Sample firms' corporate governance information and financial data are extracted from the Connect4 and Morningstar databases. Any missing information is then hand collected from individual companies' annual reports. Table 1 shows the distribution of 'strike' firms and the presence of female directors from 2011 to 2013.

Of the total sample of 314 'strike' firms, 87 firms have at least one woman on the board (29 out of 104 or 28% in 2011, 27 out of 108 or 25% in 2012, and 31 out of 102 or 30% in 2013). Of this sample firms, 22 and 26 firms received a second 'strike' in 2012 and 2013 respectively. Among these second 'strike' firms, a total of 16 firms (eight each in 2012 and 2013) have at least one female director. Eleven firms (five in 2011, and six in 2012) appointed at least one woman on the board after receiving the first 'strike'. In 2012, two firms received a second 'strike' despite the presence of a woman on the board after the first 'strike'.

Table 1. Sample distribution of 'strike' firms and presence of women on board from 2011 to 2013

Sample Characteristics	2011	2012	2013	Total
Number of 'strike' firms	104	108	102	314
Number of firms receive second 'strike'		22	26	48
Presence of women on board in 'strike' firms	29	27	31	87
Strike' firms with no women on board	75	81	71	227
Presence of women on board in firms receiving second 'strike'		8	8	16
Firms with women on board after first 'strike'		5	6	11
Firms receiving second 'strike' despite the inclusion of women on board		2.	0	2
after first 'strike'			U	

Following Monem and Ng (2013), the present study incorporates a matched-pair design strategy. In this study, control firms are matched with 'strike' firms according to GICS industry group classification, operating revenue, and fiscal year-end. Monem and Ng (2013) argue that operating revenue is one of the important indicators of a healthy firm, and a key financial figure that investors and analysts rely on. Consistent with Monem and Ng (2013), the same fiscal year-end is chosen because the firm may face a similar timeline to hold the AGM. Thus, the final sample comprises 628 firms (314 'strike' firms and 314 control firms).

Table 2 shows the distribution of the 'strike' firms from 2011 to 2013 according to the GICS industry classification. Of the 314 'strike' firms, just over 50% came from the two GICS sectors: materials (103, or 32.8%) and energy (56, or 17.8%). Another 32.4% of the 'strike' firms are from industry sectors comprising industrial, consumer discretionary, and financial. The similar pattern is observed in all three sample years of the 'strike' firms. The concentration of 'strike' firms is similar to the sector composition of ASX listed companies. For example, the materials and energy sectors comprised 47% of the listed companies in the ASX (ASX, 2014).

**Table 2.** Industry Classification of 104 'strike' firms in 2011, 108 'strike' firms in 2012 and 102 'strike' firms in 2013

In Anatom Course	2011 Freq.	2012 Freq.	2013 Freq.	Total Freq.
Industry Group	(Proportion)	(Proportion)	(Proportion)	(Proportion)
Material (15)	31 (29.8%)	40 (37.0%)	32 (31.4%)	103 (32.8%)
Energy (10)	17 (16.3%)	22 (20.4%)	17 (16.7%)	56 (17.8%)
Industrial (20)	12 (11.5%)	13 (12.0%)	13 (12.7%)	38 (12.1%)
Consumer Discretionary (25)	12 (11.5%)	11 (10.2%)	12 (11.8%)	35 (11.1%)
Financial (40)	14 (13.5%)	7 (6.5%)	8 (7.8%)	29 (9.2%)
Health Care (35)	8 (7.7%)	7 (6.5%)	8 (7.8%)	23 (7.3%)
Information Technology (45)	5 (4.8%)	7 (6.5%)	9 (8.8%)	21 (6.7%)
Telecommunication Services (50)	2 (1.9%)	1 (0.9%)	2 (2.0%)	5 (1.6%)
Consumer Staple (30)	3 (2.9%)	0 (0.0%)	1 (1.0%)	4 (1.3%)
Utilities (55)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Total	104 (100%)	108 (100%)	102 (100%)	314 (100%)

## 4.2 Models

This study develops a matched pair case/control dataset to investigate the association between female directors and the likelihood of receiving a 'strike' on the remuneration report from shareholders. In this instance, a conditional logistic regression model is adopted due to its appropriateness in matched pair case/control studies (Breslow and Day, 1987). According to Greenland and Schwartzbaum (2000), an unconditional (ordinary) logistic regression model

is inappropriate in a matched pair case/control study because in a matched pair case/control dataset, the  $\alpha$  is the effect of the pair effect, and the  $\beta$  is the effect of explanatory variables. Since there are only two observations in each pair, it is highly unlikely to be able to estimate the  $\alpha$  without bias in an unconditional logistic regression. Thus, following Abbot et al. (2012), this study uses the conditional logistic regression to compare 'strike' and control firms. The conditional regression equation is given below:

$$STRIKE = \alpha + \beta_1 PWD + \beta_2 BSIZE + \beta_3 FSIZE + \beta_4 BINDP + \beta_5 PREMU + \beta_6 REMUIND + \beta_7 PWDREMU + \beta_8 CHAIRCEO + \varepsilon$$

where the dependent and independent variables are discussed below and summarized in Table 3.

Consistent with prior research (Monem and Ng, 2013), the dependent variable, incidence of receiving a 'strike' is captured by a dichotomous variable '1' in the instance of 'strike' and '0' otherwise. The present study seeks to examine the association between the presence of women on boards and the incidence of firms receiving a 'strike', thus the independent variable is the presence of female directors, coded as '1' in instances of at least one woman on the board and '0' otherwise.

The study also controls for other 'strike' related factors, such as board size (BSIZE). Prior studies have shown that companies with a large board size are likely to have a diverse mix of expertise and experience of members (Hillman et al., 2007). In contrast, Schultz et al., (2013) suggest that firms with smaller boards are likely to have lower executive payto-performance sensitivity, and are likely to engage in earnings management (Uwuigbe et al., 2014). Board size is measured as an absolute number of a given board. Firm size (FSIZE) is another variable controlled for in this study. Monem and Ng (2013) find that smaller firms are more likely to receive a 'strike' on the remuneration report. This is due to the fact that larger firms are more likely to receive greater pressure from shareholders over the executive compensation issue (Adams and Ferreira, 2009). Consistent with prior studies, this study uses the natural logarithm of the total asset as a proxy for firm size (Monem and Ng, 2013).

The third control variable specified is the percentage of non-executive (independent) directors on a given board (BINDP). According to ASX Corporate Governance Council (2014), an independent director is "a non-executive director who is not a member of management and who is free of

any business or other relationship that could materially interfere with...the independent exercise of their judgments" (pp. 16). Prior literature suggests that where companies have an independent board, they are likely to contribute positively towards the board's monitoring responsibilities (Anderson et al., 2004). In this study, board independence is measured by calculating the proportion of non-executive directors from the total board members.

The presence of a remuneration committee (PREMU) is also a control variable in this study. It is assumed that companies with a remuneration committee are more likely to monitor their executive compensation. The presence of a remuneration committee is captured by '1' and '0' otherwise. Another control variable is the percentage of nonexecutive (independent) remuneration committee members (REMUIND). Cybinski and Windsor (2013) investigated the association between the independent remuneration committee and executive pay, and found independent remuneration firms' larger committees were likely to link CEO pay with firm financial performance. In this study remuneration committee independence is measured by taking the proportion of independent directors on the remuneration committee. The next specified variable is the presence of at least one woman on the remuneration committee (PWDREMU). Gender diversity literature suggests that the presence of women in groups enhances their overall ability of collaborative decision-making (Lee and Farh, 2004). In this model, the presence of at least one woman in the remuneration committee is coded as '1' and '0' otherwise. Finally, prior research argues that CEO duality reduces board effectiveness (Beasley, 1996). This study controlled for the CHAIRCEO duality by dichotomous variable '1' in instances where two positions are combined and '0' otherwise.

Table 3. Variable Name Description Expected Sign

Variable Name	Description	Expected Sign
STRIKE	Indicator variable with a value of 1 for firms that receive 'strike', and 0 for control firms	
PWD	Indicator variable with the value of 1 if there is at least one woman director on the board, and 0 otherwise	Negative
BSIZE	The number of directors in a given board	Negative
FSIZE	The size of the firm calculated by natural logarithm of total assets	Negative
BINDP	The percentage of non-executive (independent) directors in a given board	Negative
PREMU	Indicator variable with the value of 1 if there is a remuneration committee, and 0 otherwise	Negative
REMUIND	The percentage of non-executive (independent) directors in remuneration committee	Negative
PWDREMU	Indicator variable with the value of 1 if there is at least one woman director on the remuneration committee, and 0 otherwise	Negative
CHAIRCEO	Indicator variable with a value of 1 if the CEO holds both positions, and 0 otherwise	Positive

### 5. Analysis of results

#### 5.1 Descriptive Analysis

Table 4 provides the mean, median, standard deviation, minimum, and maximum independent variables employed in this study. It shows a pattern of the gender composition of the boards of 'strike' and control firms in each sample year. For example, in 2011, 28 percent of the 'strike' firms and 51 percent of control firms have at least one female director. A similar pattern exists in the following years (2012: 25 percent as compared to 59 percent, and 2013: 30 percent as compared to 65 percent). This represents a difference in the board gender diversity policy as adopted by the 'strike' and control firms. The average board size of the 'strike' and control firms ranges from 5 to 6 members throughout the sample period. On average, 63 percent of the 'strike' and control firms boards are independent in nature. Approximately 66 percent (average across 2011 to 2013) of the 'strike' and control firms have a remuneration committee, while on average, 58 percent of the 'strike' and control firms' remuneration committees are independent.

There is a significant difference between the 'strike' and control firms with regard to the presence of female director in the remuneration committee. Across the sample, on average, only 9 percent of the 'strike' firms have at least one woman in the

remuneration committee, while control firms have an average of approximately 22.3 percent. The mean of chairman/CEO duality in the 'strike' firms is 23 percent, and approximately 19 percent in the control firms. The average size of firms receiving a 'strike' and the control firms is similar, being 17.7 and 17.6 (natural logarithm of total assets) respectively. These figures suggest that firms who receive a 'strike' are relatively small firms, which is consistent with the findings of the study conducted by Monem and Ng (2013) of 'strike' firms. It can be argued that 'strike' firms are smaller firms and less likely to have women on the board and therefore face relatively less pressure from shareholders to mimic other firms due to their lack of visibility.

Table 5 provides the comparison of means, difference of means, and F-statistics with its p-values for 'strike' and control firms. The results suggest that control firms are more likely to have at least one female director than the 'strike' firms. This finding provides univariate support for our hypothesis. The mean difference of board size, board independence, presence of women on the remuneration committees and chairman/CEO duality are also significant. However, the mean difference of operating revenue and total assets provide an insignificant result, indicating the effectiveness of size matching procedures adopted in this study.

Table 4. Characteristics of 'strike' firms and control firms from 2011 to 2013

ample year: 201	1	Sample y	year: 2012	Sample yo	ear: 2013	
'Strike'	Control	'Strike'	Control	'Strike'	Control	
sample	sample	sample	sample	sample	sample	
n=104	n=104	n=108	n=108	n=102	n=102	
·d						
0.28	0.51	0.25	0.59	0.30	0.65	
0	1	0	1	0	1	
0.45	0.5	0.44	0.49	0.46	0.48	
0	0	0	0	0	0	
1	1	1	1	1	1	
5.09	6	4.93	5.65	6.25	6.03	
5	6	5	5	6	6	
1.53	1.99	1.47	2.21	2.07	1.97	
3	3	3	2	3	3	
11	13	9	13	14	11	
lence			II.		•	
0.61	0.65	0.61	0.65	0.62	0.64	
0.6	0.66	0.63	0.66	0.6	0.66	
0.13	0.19	0.15	0.16	0.12	0.18	
0					0	
					1	
		0.61	0.62	0.73	0.73	
1		•		t .	1	
0.48	0.48	0.49		0.45	0.45	
					0	
1	1				1	
	_		<u> </u>		1	
		0.52	0.57	0.59	0.63	
					0.8	
					0.43	
					0	
1					1	
-	_	1	1 -	1	1 1	
		0.07	0.22	0.11	0.29	
					0	
					0.46	
1					0	
					1	
	1	1	1	1	1	
1	0.06	0.31	0.25	0.25	0.27	
					0.27	
					0.45	
					0.43	
1					1	
Maximum         1         1         1         1         1         1           Firm Size         1         1         1         1         1         1						
17 82	17 72	17 //	17 36	17 75	17.88	
					17.77	
					2.01	
1 117	1111	1 17.41	1 13/0	1 1140	14 15	
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**Table 5.** Univariate Statistics of Pooled Data from 2011 to 2013

Variables	Mean for 'Strike' Firms	Mean for Control Firms	Mean	F-Statistics (p-
			Difference	values)
PWD	0.28	0.58	-0.306	49.432
I WD				(0.000)***
BSIZE	5.41	5.89	-0.481	7.441
DSIZE				(0.007)***
BINDP	0.61	0.64	-0.034	37.240
DINDF				(0.000)***
DDEMII	0.66	0.66	-0.006	0.113
PREMU				(0.737)
DEMILIND	0.56	0.60	-0.036	0.138
REMUIND				(0.711)
PWDREMU	0.09	0.23	-0.140	109.344
PWDREMU				(0.000)***
CHAIRCEO	0.23	0.19	0.032	3.842
				(0.050)*
REV	213839.76	240513.95	-26674.188	0.587
				(0.444)
ACCET	326595228.14	406526857.0	-79931628.9	2.358
ASSET				(0.125)

\*, \*\*, \*\*\* Significant at p-levels of less than 0.10, 0.05, and 0.01, respectively.

All variables are described in Table 3, except REV and ASSET. REV is the total revenue of 'strike' and control firms in a given year. ASSET is the total assets of 'strike' and control firms in a given year. These figures are intended to show the efficacy of the matching process.

# 5.2 Conditional logistic regression results and discussion

Consistent with prior research (see, for example, Abbott et al., 2012), this study employs a conditional logistic regression to analyse the matched pair case/control study design. The results from

crosstabulation (Table 6) suggest that 72.3 percent of firms that receive a 'strike' have no women on the board. However, 27.7 percent of the 'strike' firms have at least one woman on the board. Moreover, 58.3 percent of the sample firms with at least one female director did not receive a 'strike'.

Table 6. Strike\*Women on board Cross Tabulation

			Presence of Women on Board		Total
			0	1	
	0	Count	131	183	314
Strike 0	% with Strike	41.70%	58.30%	100.00%	
Suike	1	Count	227	87	314
	1	% with Strike	72.30%	27.70%	100.00%
Total		Count	358	270	628
		% of Total	57.00%	43.00%	100.00%

Table 7 provides a strong support for our hypothesis that the presence of female directors lowers the incidence of receiving a 'strike' on the remuneration report. This finding is consistent with prior studies which suggest the presence of women on corporate boards enhances the overall monitoring function of the board (Adams and Ferreira, 2009). Our result is also consistent with the study of Rogelberg and Rumery (1996) which shows that the inclusion of even one women director in an all-male board is likely to improve the board's decision making process.

Table 7 also shows a significant negative relationship between firms with larger boards and the incidence of receiving a 'strike'. This is consistent with Schultz et al's (2013) finding which shows that smaller boards are likely to have lower pay-to-performance sensitivity. Moreover, the results show a significant negative association between board independence and the presence of women on the board. This is consistent with the notion that independent boards are likely to enhance board's monitoring responsibilities (Anderson et al., 2004). Moreover, the results provide significant support for remuneration committee independence and the

presence of women in the remuneration committee in reducing the likelihood of receiving a 'strike'. This is consistent with prior literature which shows that the inclusion of women in small groups enhances group efficacy and are likely to produce better results (Eagly et al., 1992).

Other control variable signs (positive or negative) in Table 7 are consistent with the expected signs given in Table 3, except for firm size and presence of remuneration committee. The positive

sign of firm size is due to the insignificant difference between the means of 'strike' and control firms. On the other hand, the positive sign of the presence of remuneration committee suggests that the existence of a remuneration committee may not reduce the incidence of 'strike', however, the independence of the remuneration committee and the presence of women in the remuneration committee are likely to minimise the incidence of a 'strike'.

Table 7. Conditional Logistic Regression Results

Variables	Predicted Sign	Parameter estimate	Z-Statistics (p-values)
PWD	-	-1.279	-5.726 (0.00)***
BSIZE	-	-0.093	-1.695 (0.08)*
FSIZE	-	0.162	2.945 (0.003)***
BINDP	-	-1.065	-1.895 (0.05)**
PREMU	-	1.173	2.125 (0.03)**
REMUIND	-	-1.147	-1.954 (0.05)**
PWDREMU	-	-0.466	-1.609 (0.09)*
CHAIRCEO	+	0.073	2.945 (0.733)
Obs.	628		· ,
Pseudo R Squared	0.125		

\*, \*\*\*, \*\*\* Significant at p-levels of less than 0.10, 0.05, and 0.01, respectively. PWD= Presence of women on board calculated as dichotomous variable '1' for presence of women and '0' otherwise, BSIZE=Board size is the number of board of board members, FSIZE=Firms size is the natural logarithm of total assets, BIND=Board independence variable is the proportion of non-executive members in a given board, PREMU= Presence of remuneration committee measured as dichotomous variable '1' for presence of remuneration committee and '0' otherwise, REMUIND= Remuneration committee independence is the proportion of non-executive members in a given remuneration committee, PWDREMU= Presence on women in remuneration committee is measured as a dichotomous variable '1' for presence of women in remuneration committee and '0' otherwise, CHAIRCEO= Chairman/CEO duality is measured as dichotomous variable '1' for chairman is also the CEO and '0' otherwise.

### 6. Robustness checks

In order to the check robustness of the results, firstly, the study uses different measures of independence of the board and independence of the remuneration committee. Instead of using a percentage of independence, the study uses dichotomous variables '0' and '1' if the proportion of independent board members and independent remuneration committee members is greater than 50 percent. However, the results indicate significant support for the presence of at least one woman on the board lowers the likelihood of receiving a 'strike' on the remuneration report. Secondly, the study employs the percentage of women (to capture the effect of multiple women) on the board instead of a dichotomous variable '0' and '1' for the presence of women on the board. The results provide significant support for our hypothesis.

Thirdly, the study uses two different models to avoid the multicollinearity problems of the presence of a remuneration committee and the independence of remuneration committee members. One model excludes the presence of the remuneration committee and the other model excludes the independence of the remuneration committee, with the remainder of the control variables remaining the same. The results from both models support our hypothesis. Lastly, the study includes some firm related characteristics in the model to check the robustness of the results. Variables such as financial leverage (measured as total debt to equity ratio) and BIG4 (if the firm is audited by the BIG 4) are included in the model, however, the results remain consistent, providing support for hypothesis.

#### 7. Conclusion

The present study investigates the relationship between one form of board diversity, that is, the presence of female directors, and the likelihood of receiving a 'strike' on the remuneration report from shareholders. The primary motivation of this study is drawn from Adams and Ferreira (2009), suggesting that women on corporate boards enhance the board monitoring mechanism. Our study builds on prior studies which suggest that the inclusion of women on boards create heterogeneity and cohesiveness which facilitate communication and coordination and thus improve group decision making process. Our results provide support that when women are present on boards, companies are better able to deal with shareholder concerns, hence, bridging the gap between shareholders and directors by upholding shareholders confidence.

The study developed a matched-pair sample of the 'strike' and control firms, matched by GICS industry classification, total revenue, and same fiscal year-end since the inception of the 'two-strike' rule in 2011 to 2013. By employing the conditional logistic regression on the matched-pair 'strike'/control sample, the study finds a significant association between the presence of women on boards and the likelihood of receiving a 'strike' on the remuneration report. The results are consistent with prior studies which show that the inclusion of female directors improves board monitoring function and thus enhances shareholder confidence. The relative frequency of presence of women on board in the sample firms reveals that approximately 72 percent of the 'strike' firms and 42 percent of the control firms did not include a single woman on their boards.

Since the inclusion of gender diversity recommendations in the ASX Corporate Governance Principles and Recommendations in 2010, there has been a significant increase in women joining corporate boards. However, due to their smaller size and the lack of visibility, many of these firms do not governance with the corporate comply recommendation. Moreover, the results suggests that the presence of a remuneration committee does not necessarily reduce the incidence of strike, however, the independence of the remuneration committee and the presence of women in the remuneration committee may reduce the likelihood of receiving a 'strike'. Since most of the 'strike' firms are small in size, this is an important area that smaller firms may wish to address in order to enhance shareholder confidence and thus lower the incidence of a 'strike' on the remuneration report.

The study contributes to the gender diversity literature in two ways. Firstly, this is probably the first study that goes beyond traditional studies that examines the impact of female directors on firm performance by investigating the impact of the presence of women on boards on agency problem

(aligning the interest of shareholders and directors of a firm). Secondly, the present study is unique in terms of the sample selection. Since, most of the firms receiving a 'strike' on the remuneration report are smaller firms, consistent with the institutional perspective, these firms are less likely to face external pressure to enhance gender diversity at the board level. This argument mitigates the concern of women being a 'token', thus providing a distinctive platform to examine the impact of the presence of women on boards on the governance mechanism of the board.

The findings of our study need to be interpreted with care. Like most empirical studies, our study is subject to a number of limitations. One of the potential limitations of this study is that it does not provide any direct evidence as to whether female directors significantly change the governance function of the board. There may be other potential variables that signify the relationship between the presence of women on boards and the likelihood of receiving a 'strike' on the remuneration report but were omitted from our study. Since this study provides only one aspect of board diversity that may influence the incidence of receiving a 'strike' on the remuneration report, other studies with more explanatory variables may provide further evidence in this area. Moreover, other studies may consider investigating firm characteristics and the likelihood of receiving a 'strike' on the remuneration report. Nonetheless, the present study provides some initial evidence that the presence of women on boards is likely to enhance the board monitoring function and thus lower the likelihood of receiving a 'strike' on the remuneration report.

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