

# THE GENDER COMPOSITION OF BOARDS OF PROPERTY TRUST IPOs IN AUSTRALIA FROM 1994 TO 2004

**WILLIAM DIMOVSKI**  
Deakin University

and

**ROBERT BROOKS**  
Monash University

## ABSTRACT

*This study investigates the gender composition of the boards of directors of Australian property trust IPOs from 1994 to 2004. Like mining and industrial company IPOs, we find that property trust IPOs in Australia generally do not require female directors for the initial equity capital raising. We also find that larger IPOs during 1994 to 1999 tended to engage more women directors but that this relation was not significant in property trust IPOs from 2000 to 2004.*

**Keywords:** Women directors, corporate governance, gender, Boards of Directors, IPOs.

## INTRODUCTION

Over the last twenty years, the management literature has suggested that companies would benefit by engaging women on their boards of directors (Burke 1994, Burke 1997). Bilimoria (2000) presents a case that having women on boards is desirable business practice because it is likely to improve the reputation of the firm, the strategic direction (by better understanding women's issues that may impact on such direction) and to contribute positively to the company's female employees.

While employing women directors on boards may be constructive and beneficial to the operation of boards of directors, Dimovski and Brooks (2004) provide evidence of a relatively low proportion of female directors on the boards of Australian mining and industrial company IPOs. This study extends that work by examining 58 property trust IPOs during 1994 to 2004 that subsequently listed on the Australian Stock Exchange. The study specifically investigates the Australian IPO data to determine whether the Singh, Vinnicombe and Johnson (2001) in the UK and Catalyst (2003) in the US findings that

larger entities employ more women directors hold. The study also investigates whether office or retail property trust sectors employ more women and whether female representation on the board may have altered over time. While the gender composition of the boards of many industry sectors (such as retailing, banking, health, utilities and media and publishing) has been examined (see for example Singh, Vinnicombe and Johnson (2001)), the gender composition of the boards of listed property trusts (LPTs) is yet to be reported.

The LPT sector is a significant industry sector by holding over \$100 billion in property assets, over \$60 billion in net assets (Property Investment Research, 2004) and accounting for around \$73 billion (or 8%) of the capitalized value of the Australian stock market (UBS Warburg, 2004). As an IPO industry sector, Dimovski and Brooks (2005a) report that it was Australia's second largest industry sector in terms of public equity capital raised during 1994 to 1999 and second only because of the Australian Government's partial sale of Telstra. Excluding the Telstra float, property trust IPOs raised twice the public equity capital of any single industry sector and more than twice the equity raised by mining and resources IPOs.

The plan of this paper is as follows. Section 2 briefly summarises some previous gender composition findings and explains this study. Section 3 advances the model and reports the findings. Section 4 contains our conclusions.

## **PREVIOUS GENDER COMPOSITION FINDINGS AND THIS STUDY**

Burke (1997), Bilimoria (2000), Burke (2003) and Stephenson (2004) all explain in detail the competitive advantage benefits that can be enjoyed by firms employing women on boards of directors. They point to women having an intimate knowledge of consumer markets and customers and to women being innovative but also socially and community minded. In terms of corporate financial performance, Catalyst (2004) reports on 353 Fortune 500 companies in the United States on which at least four years of financial performance data is available over the years 1996 to 2000. They found that companies with the highest representation of women on their top management teams had a 35% better return on equity and a 34% better total return to shareholders than those companies with the lowest women's representation. Farrell and Hirsch (2005) also find that women tend to serve on better performing boards.

Despite the evidence of benefits regarding women in top management, the international evidence suggests relatively few women on the boards of publicly listed companies. In Australia, Sheridan (2002) finds that women represent only around 3% of the boards of Australian listed companies. In the United Kingdom, Singh and Vinnicombe (2003) report women constitute only 7.6% of all directors of the top 100 publicly listed companies. In the United States, Catalyst (2003) reports 13.6% of board seats in the Fortune 500 are held by women (compared to 12.4% in 2001 and 9.6% in 1995). Interestingly, Singh and Vinnicombe (2003) report the governments of Scandinavian countries (Norway and

Sweden) find such low representation percentages unacceptable and have now legislated for greater female representation.

Singh and Vinnicombe (2004) provide some possible insight into the relatively low female representation. They argue that male directors prefer directors like themselves just as social identity theory would suggest. Successful women directors, they suggest, appear to have significant corporate backgrounds and experience, like their male counterparts. In a similar vein, Sheridan (2002) suggests the low representation of women on boards could be due to them not having sufficient influential contact with other board members.

This study investigates the gender composition of the boards of property trusts on the occasion of their IPO. The pre-IPO owners appoint the board of directors of the IPO firm at the time of preparing the prospectus. While Mak and Roush (2000) would suggest it is in the interests of the pre-IPO owners to select a board with appropriate attributes, Burke (2003) argues that an appropriate board should include qualified women directors. In an examination of the gender composition of boards of IPOs generally, Dimovski and Brooks (2004) identify that women represent only 4% of the boards of industrial and mining company IPOs that listed in Australia during 1994 to 1997. In a later study, Dimovski and Brooks (2005b) report no significant change in the gender composition of the boards of large Australian industrial and mining companies some five to eight years after listing. This study investigates the gender composition of the boards of 58 Australian property trust initial public offerings (IPOs) during 1994 to 2004 and examines firm size influences and property trust sector influences. The total amount of public equity capital raised over this period was \$8.417 billion. Three hypotheses are formally advanced and tested with regard to the proportions of male directors and female directors at IPO time.

The relationship between the number of women directors and company size (measured usually by market capitalization) has been reported by Catalyst (2003) in the US and Singh, Vinnicombe and Johnson (2001) in the UK. Hyland and Marcellino (2002) also found that larger organizations measured by revenues employ more women directors. Luoma and Goodstein (1999) also argue that larger organizations are subject to greater public and media attention and hence larger firms need to be seen to have a higher proportion of women directors. This leads to the following hypothesis:

H1: The proportion, existence and/or number of women directors on a property trust's board is greater in larger (measured by market capitalization) entities.

Singh, Vinnicombe and Johnson (2001) report that women directors in the UK are particularly found in retailing and banking (where a high percentage of the workforce are women) and also in health, media/publishing and utilities. The office property trust sector and the retail property trust sector had 17 and 11 IPO listings respectively over the period of the study. Given the significant number employed by retailers and the finding of many women directors in retailing companies, we might expect a greater proportion of women directors in the retail trusts to add some female understanding of consumers and consumer

markets as Stephenson (2004) suggests. Similarly, many women work in offices as employees, managers or even directors. We investigate if the proportion of women directors is higher in retail and/or office trust sectors. The following hypothesis is tested:

H2: The proportion, existence and/or number of women directors on a property trust's board is greater in retail and/or office trust sectors.

Dimovski and Brooks (2005c) report on the gender composition of boards of 37 property trust IPOs for 1994 to 1999. This paper extends the dataset by another 21 property trust IPOs for 2000 to 2004 to determine if more women are board members in more recent times, given the continued discussion on the benefits of having women directors. Additionally up until the end of 1999, Australia also had a Human Rights and Equal Opportunity Commission (HREOC) that heard cases and imposed penalties for breaches of the law in the areas of human rights, equal opportunity and sex discrimination but the penalties were not enforceable. The Federal Government in 1999 transferred HREOC hearing powers to the Federal and Magistrates courts who could impose enforceable penalties from 2000 onwards.

H3: The possible explanatory variables influencing the proportion, existence and/or number of women directors on a property trust's board has altered in more recent times.

## **FINDINGS**

The primary source of the IPO data was the *Connect 4 Company Prospectuses* database. Gender data was located in each of the prospectuses of the property trust IPOs. Our sample group of 58 trusts during 1994 to 2004 consists of 17 clearly and distinctively Office property trusts, 11 clearly and distinctively Retail property trusts and 30 others involved in hotel, industrial, leisure or diversified activities. Table 1 reports details of board composition by gender for our property trust IPOs. The number of female directors was only 12 (or about 3.8%) of our 320 trust director population. Only five female directors were found amongst the Office trusts while only one female director was found amongst the Retail property trusts. For the 1994 to 1999 period of 37 property trust IPOs, the number of female directors was 7 (or about 3.3%) of the 214 trust director population for this period. Only two female directors were found amongst the Office trusts, while no female directors were found amongst the Retail property trusts in the 1994 to 1999 period.

**Table 1: Board composition by gender**

Sample size – 58 Trusts	Whole sample: 1994 –2004 Property Trust IPOs		
	No. of Directors	Office Trusts Directors	Retail Trusts Directors
<b>Female Directors</b>	12 (3.8%)	5 (5.1%)	1 (1.7%)
<b>Male Directors</b>	308 (96.2%)	93 (94.9%)	58 (98.3%)
<b>Total Directors</b>	320 (100.0%)	98 (100.0%)	59 (100.0%)

Table 2 reports some further descriptive statistics for our data. While the mean size of the IPO property trust board was 5.52, the median IPO board size was 6. The proportions of women and men directors are also reported.

**Table 2: Board size and proportions of women and men directors**

Sample size – 58 Trusts	1994 –2004 Property Trust IPOs		
	Mean	Median	Standard Deviation
<b>Board Size (members)</b>	5.52	6	1.69
<b>Proportion of Women Directors</b>	0.038	0	0.07
<b>Proportion of Men Directors</b>	0.962	1	0.07

We use multiple approaches to explore the relationship between the proportion of female directors, the existence of female directors and the number of female directors (as the dependent variables) and various explanatory variables. The four approaches, or models are an ordinary least squares regression model (OLS), a probit model, a tobit model and a poisson regression. The explanatory variables examined are defined as follows:

**LNMKTCAP** is the natural log of the market capitalization of the company given the issue price and issue size of the IPO [adapted from Singh, Vinnicombe and Johnson (2001) and Hyland and Marcellino (2002)];

**RETAIL1** A (0 or 1) variable with a value of 1 if the IPO was a Retail property trust or 0 if not [adapted from Singh, Vinnicombe and Johnson (2001)];

**OFFICE1** A (0 or 1) variable with a value of 1 if the IPO is an Office property trust or 0 if not.

The first model run was an OLS regression with the proportion of female directors as the dependent variable. The proportion is calculated as the number of female directors in the numerator and board size in the denominator. While proportions rather than binary values of the number of female directors are used in the OLS model to better test a linear relationship, a major limitation is that the fitted probabilities in OLS can be less than zero and more than one while our actual data set has a limited dependent variable from zero to one (or zero to two if we explore the actual number of women directors in a firm). To assist in exploring the dependent variable whose range of values is restricted, three other models are run and the results reported: a probit model was run with female directors as the dependent variable and was coded as 0 for cases with no women directors and 1 for cases with women directors; a tobit model was run with female directors as the dependent variable and coded as 0 for cases with no women directors or the actual number of women directors in each IPO; a poisson regression which requires the dependent, or count variable, to be discrete.

Tables 3 and 4 investigate the three hypotheses over two time periods of IPOs, 1994 to 1999 and then 2000 to 2004 respectively. The models test whether the proportions, existence or number of female directors at the time of the IPO are explained by the firm's size in terms of market capitalization or by the property trust sector in which the firm operates. As measures of goodness of fit, we report R squared, McFadden R squared and log likelihood as appropriate. Standard regression diagnostics were calculated for the models applied to the data. A Jarque-Bera test for normality, a White test for heteroscedasticity and a Ramsey Reset test are performed as necessary on the data and are available on request. The results of these diagnostic tests help confirm that our broad findings are valid.

Table 3 for property trust IPOs over 1994 to 1999 shows that the coefficients and probabilities of LNMKTCAP and RETAIL1 are statistically significant. This suggests if

we consider firms that vary in size (LNMKTCAP), but are comparable in the type of trust, larger trusts tended to employ proportionally more women directors. In addition, if we consider similar sized trusts, Retail trust IPOs tended to employ fewer female directors.

**Table 3: Possible determinants of women directors in property trust IPOs: 1994 to 1999 using OLS, probit, tobit and poisson**

Property Trust IPOs  (n=37)		OLS *	Probit	Tobit	Poisson
	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
		Proportion of Women Directors	Dir's = 1 No Women Dir's = 0	Number of Women directors	Number of Women directors
<b>Independent Variable</b>					
C	Coef.	-0.398	-13.904	-19.725	-17.440
	Pr.	0.000	0.069	0.102	0.088
LNMKTCAP	Coef.	0.025	0.733	1.043	0.898
	Pr.	0.042	0.079	0.109	0.105
RETAIL1	Coef.	-0.071	-8.716	-13.188	-40.188
	Pr.	0.026	1.000	1.000	1.000
OFFICE1	Coef.	0.053	-1.110	-1.686	-1.629
	Pr.	0.145	0.127	0.133	0.113
R squared		0.190		0.145	0.142
McFadden R Sq			0.249		
Log Likelihood			-12.319	-18.404	-15.399

\* White (1980) heteroscedasticity consistent coefficients and p-values are reported

Table 4 for property trust IPOs over 2000 to 2004 shows that the coefficients and probabilities of LNMKTCAP and RETAIL1 are not statistically significant, but that the OFFICE1 variable is statistically significant. This suggests if we consider similar sized trusts, Office trust IPOs tended to employ more female directors.

**Table 4: Possible determinants of women directors in Property Trust IPOs: 2000 to 2004 using OLS, probit, tobit and poisson**

Property Trust IPOs  (n=21)		OLS	Probit	Tobit	Poisson
		Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
		Proportion of Women Directors	Women Dir's = 1 No Women Dir's = 0	Number of Women directors	Number of Women directors
Independent Variable					
C	Coef.	-0.260	3.426	2.449	3.206
	Pr.	0.426	0.447	0.639	0.679
LNMKTCAP	Coef.	-0.014	-0.284	-0.219	-0.343
	Pr.	0.046	0.405	0.475	0.453
RETAIL1	Coef.	0.118	2.215	2.012	2.903
	Pr.	0.174	0.115	0.127	0.143
OFFICE1	Coef.	0.140	2.139	1.915	2.591
	Pr.	0.017	0.027	0.038	0.050
R squared		0.314		0.426	0.468
McFadden R Sq			0.305		
Log Likelihood			-8.007	-12.140	-9.577

While the structural break in timing from 1994 to 1999 and then from 2000 to 2004 is interesting and plausible, we also prepared Table 5 which reports the findings of the models for all 58 property trust IPOs over the eleven year time horizon. This table is not encouraging in terms of the possible determinants of women directors of property trust IPOs. Regrettably, none of the three variables selected are statistically significant.

**Table 5: Possible determinants of women directors in property trust IPOs: 1994 to 2004 using OLS, probit, tobit and poisson**

Property Trust IPOs		OLS	Probit	Tobit	Poisson
1994 to 2004 (n=58)	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable	Dependent Variable
	Proportion of Women Directors	Women	Dir's = 1 No Women Dir's = 0	Number of Women directors	Number of Women directors
Independent Variable					
C	Coef.	-0.129	-5.210	-8.243	-7.660
	Pr.	0.498	0.168	0.171	0.178
LNMKTCAP	Coef.	0.009	0.239	0.383	0.341
	Pr.	0.392	0.257	0.243	0.281
RETAIL1	Coef.	-0.028	-0.690	-1.150	-1.235
	Pr.	0.389	0.304	0.274	0.283
OFFICE1	Coef.	0.053	0.166	0.163	-0.047
	Pr.	0.643	0.726	0.818	0.948
R squared		0.046		0.018	0.031
McFadden R Sq			0.060		
Log Likelihood			-26.488	-37.010	-30.245

## CONCLUSION

The findings in this study extend Dimovski and Brooks (2004) to now include the property trust sector in the analysis of the gender composition of boards of IPOs. The low proportion of women directors in property trust IPOs is strikingly similar to the low proportion of women directors in industrial and mining company IPOs. It appears that in terms of raising public equity, the Australian capital market is satisfied with this low proportion of women directors in IPO firms generally. From 1994 to 1999, this study also finds that larger property trust IPOs were likely to employ a higher proportion of women directors, while Retail property trust IPOs offered fewer opportunities for women to achieve directorships. These relations were however not statistically evident in the following years of 2000 to 2004.

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