

INFLUENCE OF CORPORATE BOARD STRUCTURE AND FUNCTIONING ON FINANCIAL LEVERAGE OF AUSTRALIAN FIRMS

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Abstract: *The present study examines the influence of board structure and functioning on capital structure decisions of corporate firms in Australia. The sample consists of 153 large non-financial firms for the period 2004 to 2010. Initial examination of the board structures and functioning show that median board size in Australia is 7 and the board size is neither too large nor too small. Australian firms compare well with firms from other parts of the developed world in terms of board independence and skills of boards of directors. Similarly, board meetings of Australian firms are well attended. However, board members on an average have less experience compared to board members in other developed countries. OLS analyses of the influence of board structure and functioning on leverage show that CEO-Chairman duality has significant positive influence on long-term leverage while it has significant negative influence on short-term leverage. OLS analyses fails to unearth the significant influences of board independence and firm size on capital structure of Australian firms. Fixed effects panel data analyses clearly identifies the role board independence and board meetings play in determining the capital structure of Australian firms. The present study also finds that board skills, experience and board meeting attendance have no significant bearing the capital structure decision of Australian corporate firms.*

JEL Classification: G32, G38

INTRODUCTION

Australian corporate sector has seen some major changes over the last three decades. This period marked major changes in tax system in terms of introduction of tax imputation system in 1987 and goods and services tax in 2000. In the aftermath of accounting scandals at the turn of the century Australia like many other countries has adopted new regulations. In Australia this resulted in the passage of Corporate Law Economic Reform Program (Audit Reform and Corporate Disclosure) Act 2004 (CLERP9) with the aims of strengthening the corporate governance practices of corporate firms in Australia. Another major initiative is the adoption of ASX Principles of Good Corporate Governance and Best Practice Recommendations in 2003. These changes are expected to have significant influence on the financial policies of corporate firms in Australia. This study focuses on the influence of

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corporate board structure and functioning on the financial leverage of Australian firms. Earlier studies in the Australian context find evidence of negative impact of introduction of tax imputation system on the capital structure (Twite, 2001). Very few studies examine the capital structure of Australian firms. Most of the earlier studies in the Australian context focus on the influence of firms-specific factors such as size, tangibility, profitability, growth and risk on capital structure (Qiu and La, 2010). Brailsford *et al.* (2002) find evidence of the influence of ownership structure on capital structure of Australian firms. Earlier studies on governance and capital structure focused mainly in the US (Mande *et al.*, 2012, Morellec *et al.*, 2012). The present study makes an important contribution to the growing literature on corporate governance and financial policies by focusing on the Australian context.

We discuss the prior literature on capital structure and corporate governance and the theoretical framework in the next Section. This is followed by a description of empirical analysis in the third Section. The last Section summarises the findings of the present study.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Starting with the seminal works of Modigliani and Miller (1958), Modigliani and Miller (1963) several studies examine the capital structure choices of corporate firms. Under certain conditions, Modigliani and Miller show that capital structure has no impact on the cost of capital and the value of a firm. Subsequent research focused on capital structure choice when the assumptions relating to taxes, transaction costs, information asymmetry and bankruptcy are relaxed. A number of theories such as pecking order theory, trade-off theory and agency theory have been proposed to explain the leverage decisions of firms (Harris and Raviv, 1991). The present study focuses on agency theory as it also provides a theoretical basis for corporate governance. Agency costs influence the capital structure choice of firms as debt acts as a discipline on managers (Jensen, 1986, Jensen and Meckling, 1976). Agency theory view of corporate governance emphasizes the role of corporate governance in aligning the interests of managers and shareholders.

Prior research focused on the influence of a number of firm-specific factors on capital structure of firms (Harris and Raviv, 1991, Rajan and Zingales, 1995). These factors include size, non-debt tax shields (NDTS), profitability, growth and risk. Larger firms are expected to have higher debt capacity other thing being equal and therefore size is expected to have a positive influence on debt levels. Non-debt tax shields are expected to have negative influence on the debt levels given that firms may not able to create tax savings by adding on debt. Profitability may have positive or negative influence on the debt. Profitable firms may not need debt financing as there may be more cash flow available to meet the future financing needs given the profits generated by firms. Profitability may also mean higher

debt capacity as lenders are willing to lend more money given the profitability of firms. Growth is expected to have negative influence on debt as the future growth may imply higher degree of business risk and this may have negative impact on financial leverage as firms try to reduce overall risk. Similarly firms that have higher levels of risk may not want to take on additional risk and thereby reduce debt levels.

Apart from the traditional factors discussed above, institutional factors such as tax systems, bankruptcy code, corporate control market and the type of capital market development may also have influence on debt levels (Rajan and Zingales, 1995, Twite, 2001). Australia has adopted tax imputation system in 1987. Following this, companies are allowed to frank their dividends based on the accumulated franking credits. Investors who receive dividend income under the classical tax system are faced with double taxation. This is avoided to a great extent in the tax imputation system as investors could use the franking credits to offset their tax liability on personal income that includes grossed up dividends. Earlier research shows evidence of lower debt levels following the introduction of tax imputation system in Australia (Twite, 2001).

Earlier research focused on the financing patterns of firms. Pecking order hypothesis refers to the preference of firms to rely on internal sources of finance when undertaking new investments (Myers, 1984, Myers and Majluf, 1984). Firms resort to external financing when internal sources are inadequate. Of the external sources, firms prefer debt to equity. In the Australian context Allen (1991) surveys a sample of financial managers and finds that the corporate firms in Australia prefer pecking order in terms of funding preferences. Allen (1993) find evidence of pecking order hypothesis for a sample of 89 non-financial firms for the period 1954–1982.

Qiu and La (2010) analyse the influence of firm-specific factors on capital structure of Australian firms. Using a sample of 367 firms for the period 1992 to 2006, they find that tangibility has significant positive influence on the capital structure while growth opportunities and profitability have significant negative influence. They find that size has no significant influence on capital structure.

Shareholder rights are inversely related to debt ratios (Jiraporn and Gleason, 2007). Firms that have poor shareholder rights are forced to have higher levels of debt as investors are reluctant to invest unless there is monitoring by debtholders. Jiraporn *et al.* (2012) find inverse relationship between governance quality and leverage finding evidence of agency theory.

Firms that are better governed lower their cost of equity as well as cost of debt compared to firms that are poorly governed (Mande *et al.*, 2012). However, the benefits tend to be more in the case of equity financing compared to debt financing as shareholders face less expropriation and more alignment in their objectives with

that of the objectives of managers. Given that bond holder interests are protected through covenants and other market mechanisms, the benefits of better governance are likely to be realized more by the shareholders and hence the leverage levels tend to be lower when companies are better governed.

EMPIRICAL ANALYSIS

The sample constitutes the non-financial firms from the ASX Ordinaries Index. At the beginning of July 2012, there are 490 firms in S&P ASX All Ordinaries Index. Firms belonging to banking, financial services, real estate and insurance sectors are excluded given their nature and regulation surrounding capital structure decisions in those firms. Similarly firms which do not have more than one year of data on governance variables are excluded. The final sample consists of 153 firms (with 592 firm years). In the Australian context, ASX released Principles of Good Corporate Governance and Best Practice Recommendations in 2003. Companies have started adopting these principles since that time. The present study considers 2004 to 2010 study period. This period represents economic stability for Australia despite the current global financial crisis.

Measures of firm-specific financial factors such as size, NDTs, profitability, liquidity, growth, risk, dividend payout and concentration are computed for each year from 2004 to 2010. Consistent with prior literature, size is measured as natural logarithm of total assets. Firms may have several types of non-debt tax shields (Table 1). In the present study depreciation and amortization are included as a measure of NDTs. Profitability is measured using profit margin as a proxy. Liquidity is measured using current ratio. Growth is measured as ratio of market value to book value. Dividend payout is measured as a 5-year average dividend payout. Concentration a measure of business risk is captured using squared market share. Risk is also captured using beta estimated from the market model.

The present study employs three measures of leverage. The first measure is based on long-term leverage calculated as long-term debt to total of total debt and equity. The second measure highlights the short-term leverage. Short-term leverage is measured as the ratio of short-term debt and current portion of the long-term debt to total debt and equity. Finally the third measure captures the overall financial leverage measured as total debt to total of debt and equity. The present study doesn't consider market values given that there is no active secondary market for Australian debt. However, instead a book value of equity that includes all retained earnings is considered.

A number of proxies are considered to capture the many board structure and processes. Board size is measured as the number of board members. Similarly a duality score is included based on relative scoring of 0 to 100 based on all firms included in the ASSET 4 database. Independence of boards is considered using a

Table 1
Variables Employed and their Meaning

<i>variable</i>	<i>Meaning</i>
brdsizeno	Number of board members
pduality	Duality Score
pindbm	Board Independence Score
pstrictbmind	Strict Board Independence Score
padtcmtind	Audit Committee Independence Score
pbrdmtgatnd	Board Average Meeting Attendance Score
pcmtmtgatnd	Committees Average Meeting Attendance Score
pbrdskskills	Score for Specific and Specialized Skills of Board Members
pbrdexper	Score for Board Member Experience
size	Size of a company as measured by natural logarithm of total assets
ndts	Non debt tax shields as measured by depreciation and amortization
profitability	Profitability as measured by profit margin
MVBV	Market value to book value. A proxy for growth
ADPR	5-year average dividend payout ratio
liquidity	Liquidity as measured by current ratio
abeta	Adjusted beta estimated using market model
concp2	Concentration measured as square of market share
levlongtd	Long-term leverage based on book value
levshorttd	Short-term leverage based on book value
levtotald	Total leverage based on book value

score based on reported independence as well as a strict independence rule that excludes relatives, associates and former non-independent directors. Similarly audit committee independence is measured as a relative score that captures the number of independent members on the audit committee. The present study also takes into account average attendance of board members as well as members of sub-committees. Similarly relative scores on board member skills and their average experience are considered based on members' background and experience in similar businesses.

Governance data has been collected from ASSET 4 through Datastream and supplemented with hand collected data from the annual reports of companies for various years. All financial information has been collected from Datastream for the period 2004 to 2010.

Sample firms have an average board size of 7.82 indicating that Australian company boards are neither too small nor too large (Table 2). Duality score indicates that Australian company boards continue to have a significant number of boards where the CEO and Chairman positions are vested in one person compared to other firms in ASSET 4 database. Board independence on the other hand shows high relative score with median value of 64 per cent and 63 per cent strict independence. Similarly committee independence shows a median score of 70 per cent showcasing the strength of Australian boards.

Table 2
Descriptives for Variables Employed in the Study

<i>variable</i>	<i>mean</i>	<i>sd</i>	<i>min</i>	<i>p25</i>	<i>p50</i>	<i>p75</i>	<i>max</i>	<i>skewness</i>	<i>kurtosis</i>
brdsizeno	7.8193	2.4459	3.0000	6.0000	7.0000	9.0000	20.0000	1.2362	6.1681
pduality	0.7429	0.1779	0.0747	0.7898	0.8037	0.8072	0.8097	-2.9301	10.2571
pindbm	0.5808	0.2397	0.0052	0.3960	0.6383	0.7896	0.9439	-0.5872	2.2215
pstrictbmind	0.5709	0.2947	0.0093	0.3154	0.6295	0.8465	0.9736	-0.3913	1.8662
padtcmtind	0.5922	0.1887	0.0002	0.4485	0.6997	0.7047	0.7122	-1.3684	3.5014
pbrdmtgatnd	0.9523	0.0521	0.6200	0.9300	0.9700	0.9900	1.0000	-2.1073	9.2532
pcmtmtgatnd	0.9549	0.0576	0.5625	0.9333	0.9700	1.0000	1.0000	-2.1338	9.5964
pbrdspeskills	0.5372	0.2860	0.0273	0.3046	0.5568	0.8081	0.9662	-0.1244	1.7317
pbrdexper	0.3730	0.2316	0.0318	0.1901	0.3193	0.5011	0.9917	0.8173	2.8451
size	7.8402	1.4527	2.2783	7.0072	7.9263	8.7171	11.8825	-0.2709	3.6765
ndts	11.0988	2.0022	3.4340	10.2068	11.3435	12.2069	15.5034	-0.9746	5.1232
profitability	0.2064	0.2380	-0.6600	0.0929	0.1895	0.3254	0.7926	-0.7137	6.1284
MVBV	3.4643	4.0904	0.2595	1.4166	2.1910	3.7437	47.4581	4.5531	36.9431
ADPR	0.3338	0.2366	0.0000	0.1275	0.3509	0.5254	0.8939	0.0569	1.9882
liquidity	2.0549	2.0473	0.0379	1.0187	1.4262	2.0856	11.0000	2.8603	11.6384
abeta	1.0860	0.8354	0.0504	0.4862	0.8846	1.4330	5.8379	1.9257	8.6658
concp2	0.0545	0.1499	0.0000	0.0001	0.0048	0.0311	0.8874	4.2130	21.0934
levlongtd	0.2909	0.2171	0.0000	0.1342	0.2923	0.3837	1.8910	1.2895	8.6406
levshorttd	0.0632	0.0980	0.0000	0.0022	0.0295	0.0870	0.7613	3.5058	20.5467
levtotald	0.3484	0.3156	0.0000	0.2032	0.3281	0.4526	4.2730	7.0388	86.5765

In terms of board activity, Australian firms record very high levels board and committee attendance compared to other firms in the ASSET 4 database. Board and committee members on Australian boards have a relative attendance average of 97 per cent. In terms of skills of board members, Australian firms have a median relative score of 56 per cent indicating that the skill levels are neither too high nor too low. However, experience of board members of Australian firms is relatively low compared to other firms with a median score of 32 per cent. Examination of trends in board structure and functioning over the period 2004 to 2010 show no major changes except for board member skills which has shown a steady increase on a relative basis (Table 3).

Financial variables such as size and NDTs have experienced no major changes during the study period. Profit margins on an average declined from 2004 to 2007 before recovering marginally in 2010. Australian firms have paid out an average of over 31 per cent of their earnings during 2004 and 2005 reaching a highest of 39 per cent in 2007. Average dividend payout dropped thereafter returning to earlier average of 31 per cent. Market to book values similarly have shown increases up to 2007 but reverted to earlier levels in 2010. Average systematic risk as measured by beta on the other hand shown a declining trend until 2007 and thereafter

increased to previous levels perhaps mirroring the concerns of investment community in the wake of global financial crisis.

Table 3
Trend in Variables over the Period 2004 to 2010

<i>variable</i>	2004	2005	2006	2007	2008	2009	2010
brdsizeno	8.3261	8.5000	8.6545	8.3333	8.3099	7.1895	7.3268
pduality	0.7612	0.7598	0.7500	0.7753	0.7526	0.7360	0.7187
pindbm				0.5792	0.5596	0.5386	0.6275
pstrictbmind			0.5967	0.5698	0.5515	0.5815	
padtcmtind	0.5539	0.6059	0.6195	0.6012	0.6095	0.5924	0.5765
pbrdmtgatnd	0.9584	0.9518	0.9492	0.9493	0.9486	0.9512	0.9558
pcmtmtgatnd	0.9677	0.9536	0.9513	0.9433	0.9530	0.9583	0.9555
pbrdspeskils	0.3385	0.3259	0.3778	0.5050	0.5225	0.5934	0.5512
pbrdexper	0.3685	0.3721	0.3815	0.3707	0.3720	0.3664	0.3790
size	7.8571	8.3277	8.5310	8.6897	8.6797	6.9437	7.5890
ndts	11.1679	11.5091	11.4739	11.7474	11.6401	10.6535	10.7383
profitability	0.2489	0.2350	0.2400	0.2212	0.1568	0.1820	0.2133
MVBV	3.4268	4.5207	6.0094	5.0984	3.1509	2.8502	2.6495
ADPR	0.3178	0.3336	0.3656	0.3887	0.3724	0.3120	0.3137
liquidity	1.5120	1.7393	1.4801	1.7566	1.5824	2.3707	2.5493
abeta	1.1293	1.0624	0.9914	0.9100	0.9870	1.1638	1.1464
concp2	0.0933	0.0939	0.0893	0.0796	0.0633	0.0308	0.0312
levlongtd	0.2799	0.3294	0.3443	0.3432	0.3473	0.2756	0.2313
levshorttd	0.0686	0.0588	0.0843	0.0737	0.0873	0.0541	0.0495
levtotald	0.3301	0.3697	0.4053	0.3961	0.4642	0.3099	0.2930

Leverage on average has increased from 2004 to 2008 and declined sharply thereafter. Long-term leverage has increased from an average of 28 per cent in 2004 to 35 per cent in 2008 before declining rapidly to 23 per cent in 2010. Short-term debt on the other hand increased from 6.86 per cent in 2004 to 8.73 per cent in 2008 before falling to 4.95 per cent in 2010. Total leverage reached a highest level of 46 per cent in 2008 before reaching a low of 29.30 per cent in 2010. Concerns relating to persistence of global financial crisis appear to have played role in influencing the trends in capital structures of firms in Australia.

Examination of correlations among variables shows that independence of board is significantly positively correlated with board independence assessed using the strict independence criteria (Table 4). Similarly board independence is found to be significantly positively correlated with committee independence implying that companies that have independent boards tend to have committees that are independent as well. NDTs is found to be significant positively correlated with size and concentration while it is negatively correlated with liquidity and risk. NDTs is therefore not employed in causal analysis when examining the influence of governance on capital structure of Australian firms.

Table 4
Pairwise Correlations for Variables Employed in the Study

	<i>brdsizeno</i>	<i>pindbm</i>	<i>pstrictbmind</i>	<i>pbrdmtgatnd</i>	<i>pbrdspeskills</i>	<i>pbrdexper</i>
<i>pstrictbmind</i>	0.7					
<i>padtcmtind</i>		0.64	0.49			
<i>pcmtmtgatnd</i>			0.53			
<i>pbrdexper</i>			-0.47			
<i>size</i>	0.59					
<i>ndts</i>	0.51	0.35				
<i>ADPR</i>						0.31
<i>abeta</i>	-0.3				0.3	
	<i>size</i>	<i>ndts</i>	<i>ADPR</i>	<i>liquidity</i>	<i>levlongtd</i>	<i>levshorttd</i>
<i>ndts</i>	0.7					
<i>liquidity</i>	-0.31	-0.47	-0.37			
<i>abeta</i>	-0.44	-0.46	-0.36	0.38		
<i>concp2</i>	0.38	0.33				
<i>levlongtd</i>		0.32		-0.36		
<i>levtotald</i>				-0.32	0.56	0.53

Note: Only correlations significant at 1% with a minimum value 0.30 are reported

RESULTS AND DISCUSSION

To analyse the influence of governance on capital structure of Australian firms, first ordinary least squares (OLS) regressions with robust errors are estimated (Table 5). These models do not assume normality and homoscedasticity. Nine different models have been used with three models each for the three different measures of leverage. The first group of models - Models (1, 4 and 7) - examine the influence of board structure and functioning on long-term, short-term and total leverage respectively. The second group of models - Models (2, 5 and 7) - examine the influence of traditional financial variables on leverage. The last group of models - Models (3, 6 and 9) termed as overall models - examine the influence of all exogenous variables on leverage. The third group of models also incorporate time and industry dummies. A similar model specification is followed subsequently with Fixed Effects analysis.

Analysis of the influence of board structure and process show that board size has significant positive influence on long-term leverage as well total leverage. Similarly CEO-Chairman duality has significant positive influence on long-term leverage and total leverage. Boards that have highly skilful board members have low long-term as well as total leverages. Analysis of firm-specific financial variables on leverage shows that size has positive significant influence on both long-term as well as total leverage. Liquidity, on the other hand, has significant negative influence on all three forms of leverage. The overall models on the other hand show slightly varying results. Board size is no longer a significant influence on

Table 5
OLS Analyses of Factors Influencing Financial Leverage

Model	(1) levlongtd	(2) levlongtd	(3) levlongtd	(4) levshorttd	(5) levshorttd	(6) levshorttd	(7) levtotald	(8) levtotald	(9) levtotald
Brdsize	0.0209*** (4.52)		0.0036 (0.39)	0.0039 (1.77)		0.0006 (0.21)	0.0300*** (3.53)		0.0048 (0.57)
Pduality	0.1958*** (3.43)		0.1890** (2.88)	-0.0437 (-1.71)		-0.1337*** (-3.77)	0.1385* (2.17)		0.0736 (1.14)
Pindbm	-0.0493 (-0.84)		-0.0306 (-0.46)	0.0113 (0.57)		-0.0066 (-0.28)	0.0094 (0.13)		-0.0256 (-0.40)
Pbrdmitatnd	-0.2887 (-1.08)		0.2810 (1.11)	0.0787 (0.93)		0.0956 (1.00)	-0.0586 (-0.18)		0.3163 (1.34)
Pnobrdmtg	-0.0534 (-1.02)		-0.0963 (-1.86)	0.0705** (2.68)		0.0763** (3.21)	-0.0595 (-0.70)		-0.0243 (-0.51)
Pbrdspeskils	-0.1166** (-2.97)		-0.0437 (-1.25)	-0.0251 (-1.61)		-0.0052 (-0.31)	-0.1590*** (-3.33)		-0.0480 (-1.41)
Pbrdexper	-0.0738 (-1.54)		0.0345 (0.74)	0.0031 (0.15)		0.0195 (0.81)	-0.1026 (-1.58)		0.0520 (1.14)
Size		0.0238* (2.49)	0.0327 (1.94)		-0.0014 (-0.53)	-0.0040 (-0.87)		0.0207* (2.32)	0.0256 (1.66)
Profitability		-0.0059 (-0.10)	-0.1099* (-2.01)		-0.0062 (-0.41)	0.0231 (1.59)		-0.0151 (-0.28)	-0.0834 (-1.60)
MVBV		0.0049 (1.36)	0.0046 (0.74)		0.0003 (0.23)	-0.0009 (-0.68)		0.0053 (1.75)	0.0036 (0.64)
Liquidity		-0.0375*** (-6.40)	-0.0216*** (-3.86)		-0.0186*** (-5.76)	-0.0179*** (-5.55)		-0.0509*** (-8.18)	-0.0350*** (-6.17)
Abeta		0.0147 (0.72)	0.0648** (2.81)		0.0037 (0.48)	0.0143 (1.58)		0.0177 (0.92)	0.0724** (3.33)

contd. table 5

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<i>levlongtd</i>	<i>levlongtd</i>	<i>levlongtd</i>	<i>levshorttd</i>	<i>levshorttd</i>	<i>levshorttd</i>	<i>levtotald</i>	<i>levtotald</i>	<i>levtotald</i>
ADPR		-0.0661 (-1.37)	0.0122 (0.22) Yes		-0.0277 (-1.72)	-0.0150 (-0.70) Yes		-0.0787 (-1.70)	0.0047 (0.09) Yes
Year Dummies									
Industry Dummies			Yes			Yes			Yes
Intercept	0.3965 (1.54)	0.1599* (2.02)	0.0469 (0.21)	-0.0546 (-0.68)	0.1136*** (4.10)	0.0727 (0.74)	0.2042 (0.68)	0.2562*** (3.45)	0.1178 (0.55)
N	348	386	260	347	385	259	348	386	260
Adj R ²	0.1203	0.1371	0.4518	0.0373	0.0972	0.2708	0.0819	0.2172	0.4998

Note: t statistics in parentheses

*, **, and *** indicate significant at 10%, 5% and 1% respectively

any form of leverage. CEO-Chairman duality has significant positive influence on long-term leverage while it has negative influence on short-term leverage. CEO-Chairman duality has no significant influence on total leverage. Board meeting score has significant positive influence on short-term leverage.

Overall models also show significant negative influence of profitability and liquidity on long-term leverage. Similarly liquidity has significant negative influence on short-term leverage as well as total leverage. Beta a measure of systematic risk on the other hand has positive significant influence long-term and total leverages.

In terms of explanatory power, the overall models do capture a higher proportion of variation in the leverage levels. While models that incorporate governance variables capture only 12, 4 and 8 of variation in long-term, short-term and total leverage respectively, the overall models explain 45, 27 and 50 per cent of variation in leverage levels.

To sum up, the OLS analyses show that CEO-Chairman duality has significant positive influence on long-term leverage while it has significant negative influence on short-term leverage. Profitability and liquidity have negative significant influence on long-term leverage. Beta a measure of risk on the other hand has significant positive influence on the long-term and total leverages.

The OLS analysis suffers from several shortcomings relating to unobserved heterogeneity. The null hypothesis of no systematic differences in coefficients estimated from fixed effects and random effects model is tested with the Hausman test. Based on the Hausman test results, the present study employs fixed effects (FE) panel data analysis. Fixed effects panel models address the issue of unobserved heterogeneity.

Analysis of influence of board structure and functioning on leverage using FE panel data models show that CEO-Chairman duality has no significant influence on long-term leverage (Table 6). Long-term leverage is significantly negatively influenced by board independence and board meetings. These effects persist even when firm-specific financial and industry dummy variables are included.

Size has significant positive influence on leverage. This effect persists in the overall model as well. These results provide additional evidence on the positive influence of size on leverage unlike Qiu and La (2010) who find that size has no significant influence on leverage. Profitability on the other hand has significant negative influence on long-term leverage. These results are consistent with the findings of Qiu and La (2010).

Growth opportunities have significant positive influence on long-term leverage while liquidity has significant negative influence. However, these effects do not last when all the variables are included in the analysis. Thus we can summarize

Table 6
FE Analyses of Factors Influencing Financial Leverage

Model	(1) levlongtd	(2) levlongtd	(3) levlongtd	(4) levshorttd	(5) levshorttd	(6) levshorttd	(7) levtotald	(8) levtotald	(9) levtotald
Brdsize	-0.0119 (-1.42)	-0.0274* (-2.42)	0.0050 (0.99)	0.0120 (1.86)	-0.0069 (-0.81)	0.0120 (1.86)	-0.0069 (-0.81)	0.0120 (1.86)	-0.0167 (-1.49)
Pduality	-0.0540 (-0.57)	-0.0146 (-0.14)	-0.1367* (-2.36)	-0.1769** (-3.00)	-0.1376 (-1.43)	-0.1769** (-3.00)	-0.1376 (-1.43)	-0.1769** (-3.00)	-0.1256 (-1.23)
Pindbm	-0.2548*** (-3.93)	-0.2525*** (-3.37)	0.0214 (0.54)	0.0004 (0.01)	-0.2229*** (-3.41)	0.0004 (0.01)	-0.2229*** (-3.41)	0.0004 (0.01)	-0.2325** (-3.14)
Pbrdmitatnd	0.0693 (0.35)	0.2300 (0.87)	0.1492 (1.24)	-0.1054 (-0.70)	0.2185 (1.09)	-0.1054 (-0.70)	0.2185 (1.09)	-0.1054 (-0.70)	0.1751 (0.67)
Pnobrdmtg	-0.1255** (-2.63)	-0.1158* (-2.05)	0.0544 (1.88)	0.0418 (1.30)	-0.0663 (-1.38)	0.0418 (1.30)	-0.0663 (-1.38)	0.0418 (1.30)	-0.0676 (-1.21)
Pbrdspekils	-0.0103 (-0.25)	0.0224 (0.49)	-0.0065 (-0.26)	-0.0065 (-0.26)	0.0061 (0.24)	-0.0065 (-0.26)	-0.0249 (-0.60)	0.0061 (0.24)	0.0120 (0.27)
Pbrdexper	-0.1307 (-1.44)	-0.0171 (-0.15)	-0.0145 (-0.26)	-0.0145 (-0.26)	-0.0610 (-0.95)	-0.0610 (-0.95)	-0.1482 (-1.61)	-0.0610 (-0.95)	-0.0758 (-0.68)
Size		0.0558*** (4.47)	0.0400* (2.53)	0.0085 (1.16)	0.0134 (1.49)	0.0085 (1.16)	0.0134 (1.49)	0.0559*** (4.89)	0.0443** (2.84)
Profitability		-0.2335*** (-4.71)	-0.1515** (-2.85)	0.0073 (0.25)	0.0399 (1.32)	0.0073 (0.25)	-0.2137*** (-4.70)	-0.2137*** (-4.70)	-0.1038* (-1.98)
MVBV		0.0105*** (4.21)	-0.0032 (-0.60)	-0.0007 (-0.51)	0.0013 (0.44)	-0.0007 (-0.51)	0.0100*** (4.38)	0.0100*** (4.38)	-0.0010 (-0.19)
Liquidity		-0.0144* (-2.09)	-0.0027 (-0.35)	-0.0216*** (-5.33)	-0.0174*** (-3.94)	-0.0216*** (-5.33)	-0.0305*** (-4.82)	-0.0305*** (-4.82)	-0.0153* (-2.01)
Abeta		-0.0295 (-1.41)	-0.0345 (-1.00)	0.0122 (0.99)	0.0660*** (3.38)	0.0122 (0.99)	-0.0180 (-0.94)	-0.0180 (-0.94)	0.0147 (0.43)

table 6 contd.

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	<i>levlongtd</i>	<i>levlongtd</i>	<i>levlongtd</i>	<i>levshorttd</i>	<i>levshorttd</i>	<i>levshorttd</i>	<i>levtotald</i>	<i>levtotald</i>	<i>levtotald</i>
ADPR		-0.0585 (-0.74)	-0.0007 (-0.01)		0.0891 (1.92)	0.2221** (2.89)		0.0148 (0.20)	0.1714 (1.29)
Industry Dummies			Yes			Yes			Yes
Intercept	0.6072** (2.77)	-0.0606 (-0.59)	0.2542 (0.83)	-0.0620 (-0.47)	-0.0104 (-0.17)	-0.0431 (-0.25)	0.4977* (2.25)	-0.0287 (-0.30)	0.1939 (0.64)
N	348	386	260	347	385	259	348	386	260
Adj R ²	0.1275	0.1931	0.2613	0.0563	0.1176	0.2858	0.0938	0.2598	0.2274

Note: t statistics in parentheses
 *, **, and *** indicate significant at 10%, 5% and 1% respectively

that board independence, meeting frequency, and profitability have negative significant influence on long-term debt while size has significant positive influence.

FE analyses also shows that CEO-Chairman duality, liquidity have significant negative influence on short-term liquidity whereas risk and dividend payout have significant positive influence. Board independence, profitability and liquidity have negative significant influence on total leverage whereas size has significant positive influence.

To summarize, the fixed effects panel data analyses clearly identifies the role board independence and board meetings play in determining the capital structure of Australian firms. Similarly profitability has significant negative influence on capital structure while size has positive influence. Analyses also show that CEO-Chairman duality has significant negative influence on short-term leverage. Board independence also has significant negative influence on total leverage. Analyses shows that boards skills, experience and board meeting attendance have no significant bearing the capital structure decision of Australian corporate firms.

SUMMARY

Using a sample of 153 firms that are part of All Ordinaries Index for the period 2004 to 2010 the present study analyses the influence of board structure and functioning on capital structure decisions of corporate firms in Australia. The Australian context provides an unique opportunity to expand the literature on governance and financial policies given the tax imputation environment and a financial sector that is capital market dominant. Initial examination of the board structures and functioning show that median board size in Australia is 7 and the board size is neither too large nor too small. CEO-Chairman duality on the other hand though experienced significant decline in the recent period is not negligent and continues to prevail. Australian firms compare well with firms from other parts of the developed world in terms of board independence and skills of boards of directors. Similarly, board meetings of Australian firms are well attended. However, board members on an average have less experience compared to board members in other developed countries.

OLS analyses of the influence of board structure and functioning on leverage show that CEO-Chairman duality has significant positive influence on long-term leverage while it has significant negative influence on short-term leverage. Profitability and liquidity have negative significant influence on long-term leverage. Beta a measure of risk on the other hand has significant positive influence on the long-term and total leverages. OLS analyses fails to unearth the significant influences of board independence and firm size on capital structure of Australian firms. Fixed effects panel data analyses clearly identifies the role board independence and board meetings play in determining the capital structure of

Australian firms. Analyses also show that CEO-Chairman duality has significant negative influence on short-term leverage. Analyses shows that boards skills, experience and board meeting attendance have no significant bearing the capital structure decision of Australian corporate firms.

The present study has implications for practice, policy and theory. In terms of practice, corporate firms are better off improving their corporate governance practices specifically independence of boards and board functioning as this would lead to lower costs of financing. Similarly, the policy implications of this study pertain to strengthening of boards and board independence further. Finally more research is necessary to unearth the many possible relationships between governance and financial policies of firms.

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