

The Linkage between Excess Board Independence and Capital Structure: An Exploration in the Context of Listed Companies in Saudi Arabia

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Abstract

The purpose of this study is to investigate the link between one of the corporate governance mechanisms employed to effectively monitor managers and align their goals with those of shareholders, number of independent directors on the board and capital structure for 68 firms listed on Saudi Arabian stock exchange for the period 2010-2014. We employ two measures that account for the representation of independent directors, board independence and excess independence and test this relationship in the presence of a number of control variables such as board size, assets' tangibility and firm size, profitability and growth opportunities. We find that board independence and debt share a positive relationship which is not statistically significant, while the link between excess independence and debt is positive and is statistically significant. The results are robust when the book debt is alternated with market debt. Our findings have important implications for the corporate governance structures of firms. This has important implications for the regulators and firms.

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Keywords: Board structure, Board independence, Capital structure, Agency theory, Corporate governance.

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1 Introduction

1.1 Study Introduction and Purpose

Widely held corporations suffer from an agency problem that is at the core of the separation of ownership and control. Agency problems arise from the diverse interests of managers and shareholders. Managers may pursue their personal goals which may not serve in the best interest of the shareholders. According to [1] managers invest their human capital and financial capital in the firm. Bankruptcy of the firm will cause heavy loss to them. Risk-averse managers may invest in sub-optimal projects that do not maximize the shareholders' wealth. Additionally, managers may also consume firm's resources excessively as compensation and perks. Debt can be used to contain the agency problem. The groundbreaking theories put forth by [2], [3], offer justification for capital structure through agency theory explanation. Debt can moderate the agency problem by reducing the availability of free cash flow with the managers and by increasing the bankruptcy risk and risk of losing job. [4] Hence, shareholders of firms rampant with the conflict of interests between shareholders and managers may contain their equity offering and force the firm to rely on increased level of debt finance.

However, the agency cost of debt is influenced by the firm's governance structure. An effective corporate governance structure will let managers set the capital structure at the level desirable to the shareholders rather than at the level of their choice. Firms strive to design appropriate strategies to monitor and control the managers to align their interests with those of the shareholders and try to enhance the firm value. [5]. One of the strategies that is frequently resorted to, is the separation of management decision and control decision at all levels in the firm. [6]. Previous work brings out that firms appropriately structure their boards to monitor the managerial actions. (See for example, [7]) Shareholders of firm with good corporate governance may have favorable expectations about the firm's future cash flows. [8] This will motivate the shareholders to offer higher levels of equity financing at lower cost [9], which reduces the need for debt for the firm. On the contrary, firms with poor corporate governance system will suffer reduced equity participation and will have to seek debt financing. [10] argue that good corporate governance system is viewed by the providers of capital to the firm as an assurance to efficiently employ the funds in the firm's operations and as a commitment to pay a reasonable rate of return on their investment. Board independence is a key corporate governance tool that can contain managers from pursuing self-centered goals. (See for example, [11])

The purpose of this study is to bring out the link between board independence, a corporate governance tool used to effectively monitor managers and align their goals with those of shareholders, and capital structure for firms listed on Saudi Arabian stock exchange. The study contributes to the existing literature in three significant ways. First, the empirical works that evaluate the connection between board independence and debt have produced mixed results. ([12]; [13]) This research is to end the confusion in the empirical literature that evaluates the association between board independence and the level of debt employed by the firms and offer conclusive evidence. Second, while there are many studies that evaluate the relationship between board independence and debt in developed and developing countries, studies in the context of Saudi Arabia are extremely scanty. The institutional and regulatory framework differences between Saudi Arabia and the other countries may render the existing knowledge produced by research carried

out in other countries not relevant for Saudi Arabia. This study is carried out to fill the gap by offering country specific evidence to develop knowledge for Saudi Arabia. Finally, this study employs two varied definitions of board independence. It has been brought out by an earlier study by [14]. That the association of board independence and firm performance differs depending on its definition. They study two variants of board independence. They define board independence as the ratio of number of independent directors to the total number of directors on the board and excess board independence as a dummy variable equal to 1 when the board has independent directors in excess of regulatory minimum and 0 otherwise. The study shows that board independence is positively related to firm performance while excess board independence has no statistically significant impact on firm performance. We adopt these two definitions, board independence and excess board independence, in our study. We believe that the excess board independence helps us to understand better the link between corporate governance and debt from the agency theory perspective. [15] stress that firms with better corporate governance practices may enjoy cheaper funds. Presence of independent directors exerts a pressure on the managers to deliver results to the shareholders. The monitoring role played by the independent directors can diminish the agency problem and enhance investors' confidence in the firm. [6]. [12].highlight the fact that non-executive directors help improve the firm's rating from external stakeholders and their ability to access funds at a lower cost. Hence, presence of independent directors on the board in excess of the regulatory minimum can represent the firm's intention to employ voluntary monitoring mechanism. Excess board independence may signal the firm's commitment to deliver high performance and willingness of the managers to be subjected to the monitoring pressure by a higher number of independent directors on the board.

Hence, this study differentiates board independence and excess independence and studies the link between these two variables and debt.

1.2 Literature Review and Hypotheses Development

Agency problem arises from the conflict of interest between shareholders and managers. Firms tend to implement strategies like increase the level of debt financing, propose a managerial compensation scheme that help to align the interests of managers with shareholders, etc. ([16];[17]) However, use of debt as an agency problem alleviating instrument falls within the framework of the corporate governance structure of the firm. Existing empirical works produce evidence to show that boards with higher representation from independent directors monitor the managerial engagements more efficiently. [18] find that outsider directors fire non-performing CEOs. [19] argue that boards with a higher participation of outside directors can act independently in circumstances of conflict between owners and managers. It is argued by the agency theory that managers who have their human and financial capital invested in the business, will employ debt at its sub-optimal levels to pull down the probability of bankruptcy risk. [20] find that firms that hold higher levels of managerial wealth investments hold lower levels of debt. That debt restricts managerial freedom is brought out by earlier works. [16]. As a result, the level of debt held by a firm may not be just the result of external factors like taxes, cost of funds alone but also reflects the shareholders-managers conflict. Shareholders may use debt to discipline managers. Risk-averse managers will have to adopt value maximization goal and enhance firm performance to service debt in case the firm uses

debt financing. However, external debt holders may not offer their funds if they suspect that the firm is investing in sub-optimal projects. Presence of an effective corporate governance system that monitors the managerial actions plays an important role in increasing debt availability and decreasing the cost of debt. A well applied board structure and governance structure can make the manager shift her leverage policy from self-interest to that of shareholders. [7] argue that board structures are designed to guarantee satisfactory monitoring of managerial deeds.

Board independence can be regarded as an important monitoring mechanism of the board structure that can moderate the self-centered managers. [21]. That boards characterized by a majority of independent directors tend to focus on the shareholders' interests is brought out by earlier works (See for example, [11]; [22]) Independent directors have no business or financial stake in the firm. They are only concerned with their status as experts and their human capital. [23]. In circumstances where the conflict of interests between owners and managers arise, independent directors can supervise the situations independently. ([19]; [24]).US Corporations are tilting their board structures in favor of increased participation from independent directors in recent times. [25].

Existing empirical research produce mixed results on the link between board independence and debt. Some works find that firms with higher board independence have higher levels of leverage. (See for example, [26]; [27]), while others find a negative link between board independence and leverage. (See for example,[13]) Resource dependence theory put forth by [28], and later developed by [12] argues that outside directors improve the firm's ability to insulate itself from the external shocks, enjoy lower uncertainty and raise funds with ease. The theory emphasizes that boards with higher outside directors have higher levels of debt. [13] find an inverse relationship between number of outside directors and leverage. They argue that outside directors actively supervise managers forcing them to deliver better performance. Hence, firms with higher representation of outside directors have lower debt and higher market value for their equity.

Corporate governance regulations in Saudi Arabia stipulate that the independent directors shall not be less than 2 or one-third of the board size, whichever is greater. A firm that has a board independence which is just equal to the regulatory minimum may not signal the firm's commitment to an effective corporate governance process, just obedience to law. [29] argues that independent directors may not be contribute to the management decision making process for multiple reasons: they are appointed by the top management and may not carry out their role as whistle blowers in case of any problems or the board culture does not offer room for conflict.

But, having the size of independent directors' representation in excess of regulatory minimum can be expected to signal the firm's commitment to better governance practices and willingness to subject the firm's management to more pressure to perform. Excess board independence may signal the firm's commitment to adopt voluntary monitoring mechanisms for monitoring board closely. This may encourage external stakeholders to offer funds at lower cost. As debt can discipline managers by reducing the free cash and pressure to perform to avoid bankruptcy, it could supplement the efforts of independent directors. Research by [30] shows that replacing executive directors with independent directors enhances the monitoring performance of board. As per the arguments put forth by [31] the skill set of independent directors can complement that of the executive directors and improve board performance. Hence, we expect firms with excess board independence to have higher levels of debt.

Hypothesis 1: Board independence and debt may not be related.

Hypothesis 2: Excess independence and debt will have a positive association.

1.3 Corporate Governance Regulations on Board Independence in Saudi Arabia

Article 2 of the corporate governance regulations defines an independent member as a member of board of directors who enjoys complete independence. The stipulation provides the following as examples of infringement of independence.

- 1) He/she holds a five per cent or more of the issued shares of the company or any of its group.
- 2) Being a representative of a legal person that holds a five per cent or more of the issued shares of the company or any of its group.
- 3) He/she, during the preceding two years, has been a senior executive of the company or of any other company within that company's group.
- 4) He/she is a first-degree relative of any board member of the company or of any other company within that company's group
- 5) He/she is first-degree relative of any of senior executives of the company or of any other company within that company's group.
- 6) He/she is a board member of any company within the group of the company which he is nominated to be a member of its board.
- 7) If he/she, during the preceding two years, has been an employee with an affiliate of the company or an affiliate of any company of its group, such as external auditors or main suppliers; or if he/she, during the preceding two years, had a controlling interest in any such party

The regulations stipulate that the articles of association of the company shall specify the board size subject to the condition that it shall have no less than 3 and no more than 11 members on the board. The independent members on the board shall not be less than two or one-third of the board size whichever is greater.

This study is organized in 5 sections. This section introduces the study, its purpose, literature review and hypothesis development, and the corporate governance regulations on board independence in Saudi Arabia. Section 2 outlines the data and methodology of the study. Section 3 provides the empirical results. Section 4 lists the study tables. Section 5 concludes the interpretations of the results and its implications.

2 Data and Methodology

Our sample consists of 68 firms drawn from 13 sectors namely agriculture & food industries, building & construction, cement, energy & utilities, hotel & tourism, industrial investment, media & publishing, multi-investment, petrochemical industries, real estate development, retail, telecommunication & information technology and transport. The two sectors that are excluded from our study are banking & financial services and insurance. The sample includes all the firms from the non-financial sectors for which the data for the study variables is available during our study period, 2010-2014. Firms with any missing values are not part of our sample as we run a balanced panel regression. Data, corporate governance and financial variables are sourced from the annual reports of

the listed firms.

2.1 Dependent Variables

Debt Ratios: We define the debt as book value of leverage. For robustness check, we define debt as market leverage. Book leverage (BL) is the ratio of book value of total debt to total assets. Market leverage (ML) is the book value of total debt as a ratio to total assets minus book value of equity plus market value of equity. The baseline regression uses book leverage as the dependent variable as [32] maintain that the theoretical forecasts broadly applies to book value of debt. As per [33] line of argument, book values represent the managerial targets. Market value of equity is a function of factors that fall outside the purview of the managerial decision making process. However, to confirm that our study results are not dependent on the definition of leverage, we rerun the baseline models with market leverage as dependent variable.

2.2 Independent Variables

2.2.1 Board Independence (IND)

This is the ratio of the independent directors to board size.

2.2.2 Excess Independence (INDD)

This variable measures if the board independence in excess of the regulatory requirement has any relationship with the capital structure of the firm. This variable is defined as a dummy variable which is assigned 1 when the firm has the number of independent directors in excess of regulatory minimum and 0 otherwise.

2.3 Control Variables

2.3.1 Board Size

Total number of directors on the board in logarithmic form. Board size is considered as one of the important tools in governance structure in theoretical models. (See for example [34]). Empirical research that test the link between board size and leverage find mixed results. Early research find that firms with larger boards tend to have more debt. (See for example, [16]; [26]) However, recent research findings offer evidence to show the opposite that board size and the level of debt employed move in the same direction. (See for example, [13]; [27]). [35] argues that firms with larger boards enjoy debt at lower cost. We hypothesize a positive link between board size and debt.

2.3.2 Tangibility (TAN)

Lenders may insist on collateral for their investment as shareholders may commit funds in sub-optimal projects on account of their conflicts with lenders. Hence, the ability of the firm to raise debt is dependent on its ability to offer collateral which is dependent on their stock of tangible assets. In case of default, the lenders will appropriate the proceeds from the sale of collateral. Collateral averts the risk of bankruptcy for the firm. Firms, as a result may prefer to debt contracts with collateral clause. We expect a positive association between tangibility and capital structure. Empirical works produce mixed

results about the link between tangibility and capital structure. Some works find a positive relationship between tangibility and leverage (See for example, [36]; [37]), while others show a negative link between tangible assets and leverage. (See for example, [38]; [39]). In line with some of the earlier works, we measure tangibility as the ratio of fixed assets to total assets. [40]. We expect a positive link between tangibility and leverage.

2.3.3 Profitability (PFT)

The link between profitability and leverage is unclear from the theory. Pecking order theory stipulates that firms exhaust internal sources of finance ahead of tapping external sources. Firms with higher levels of profitability will have finance generated from within and hence, will tend to use less external financing. A negative association between profitability and debt is predicted. However, trade-off theory contradicts this line of argument and puts forth that firms with higher level of profitability will be in a position to service debt better and will prefer to exploit the tax advantage that the interest on debt offers. Hence, a positive link between profitability and leverage is expected. Empirical works largely support the pecking order theory predictions. (See for example [41]) We hypothesize a positive link between firm profitability and leverage.

2.3.4 Size (SIZE)

The impact of firm size on the level of firm leverage is unclear. Larger firms may adopt better transparency in corporate governance which may increase equity holders' participation in firm capital. Hence, firm size and leverage may share an inverse relationship. However, static trade-off theory offers quite a contradictory prediction to this assumption. Larger firms suffer reduced level of bankruptcy risk as they tend to have diversified operations. This reduces their cost of borrowed funds and hence, they may employ more funds from debt. That larger firms tend to have higher levels of debt is supported by many of the earlier works. (See for example, [38]). We define firm size as the natural logarithm of total assets. We hypothesize a positive link between firm size and leverage.

2.3.5 Growth Opportunities (GR)

Firms that are faced with investible growth opportunities will require more funds. They may need external sources of funds, particularly debt as per pecking order theory. We may predict that growth opportunities and leverage will have a positive linkage. However, if the growth opportunities happen to be investments in sub-optimal projects as argued by agency theory which may arise out of conflicts between shareholders and debt holders, then lenders may become unwilling to offer long-term debt. [42]. Hence, it is possible not to find a link between growth opportunities and leverage. We define growth opportunities as the year to year change in total assets following [36]. We hypothesize a positive connection between growth opportunities and debt.

In addition to the above variables, many of the earlier works include non-debt tax shields in the study on leverage. (See for example [43]) We do not include this variable, as firms in Saudi Arabia are not subjected to taxation like their counterparts in the rest of the globe. Instead they pay Zakat which is a flat rate of 2.5% calculated on the sum of the firm's current assets in addition to the operating profit of the current year. Considering the size of this tax liability we do not expect the firms in our sample to employ debt in

order to take advantage of tax shield it provides. Many studies that evaluate the association between board structure and debt include the CEO-Chairman duality variable. (See for example, [27]). We do not include this control variable in our study as only 24 firm-year observations out of 340 firm-year observations studied have the dual role of CEO and Chairman of the board position to a single individual. The latest 2015 amendment to the corporate law in Saudi Arabia states that the board of directors should appoint the chairman and vice chairman of the board and managing directors from the board members and it is prohibited for any board member to be the chairman of the board and also hold any executive position at the same time. It states that this provision cannot contradict with the corporation's primary establishing code. This explains the phenomenon of why dual positions for a single individual is an exception among Saudi Arabian listed firms.

2.4 Model

We estimate the following 4 models.

$BL = f(BRD, IND, TAN, PFT, SIZE, GR)$

$BL = f(BRD, INDD, TAN, PFT, SIZE, GR)$

$ML = f(BRD, IND, TAN, PFT, SIZE, GR)$

$ML = f(BRD, INDD, TAN, PFT, SIZE, GR)$

In addition to the study variables, all the four models applied include the year and industry dummies.

BRD: Board size in logarithmic form

IND: Number of independent directors / Board size

INDD: Excess board independence measured as a dummy variable with a value of 1 when the board independence is in excess of regulatory minimum and equal to 0 otherwise.

TAN: Fixed assets / Total assets

PFT: Operating profit / Total assets

SIZE: Total assets in logarithmic form

GR: Year on year growth rate of total assets

2.5 Methodology

To check the suitability of data for a regression, we test them for unit root. [44] unit root test is applied to check if data is stationary at level. The test assumes a unit root as the null hypothesis. Our sample size satisfies the test constraints on size. Hence, the test is suitable for our data. We find that all our data series are stationary at level and are amenable to regression analysis

Table 1: Results of unit root test

Variable	statistic	prob.
BL	-15.8984(0)	0.0000
ML	-15.8651(0)	0.0000
BRD	-6.75408(0)	0.0000
IND	-19.4842(0)	0.0000
TAN	-12.0809(0)	0.0000
PFT	-20.4029(0)	0.0000
SIZE	-6.4278(0)	0.0000
GR	-26.7035(0)	0.0000

Number in parenthesis is the automatic lag chosen by SIC

Statistic is the Levin, Lin & Chu t.

We apply panel regression on balanced data. We estimate our models with year and industry effects. As the independent variables, board independence and excess independence do not vary during the study period for a majority of our sample firms; firm fixed effects estimation of the models may give erroneous results. (See for example, [45]) We estimate the models with year-fixed and industry-fixed effects. Since capital structure decision is not expected to influence board structure decisions (See for example, [46]) the estimation assumption that error terms in the models are uncorrelated with the study variables is not violated. The t-statistics is adjusted for firm-level clustering.

3 Main Results

Descriptive summary statistics for the dependent and independent variables are presented in table 2. Mean debt ratio for the sample firms is at 39.18% when measured as book debt and is at 28.17% when measured as market debt. The proportion of independent directors as a ratio to the total number of directors on the board is 49.75% which is well above the mandatory requirement of one-third of the board.

Table 2: Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Standard deviation
BL	340	0.0508	0.8395	0.3918	0.2058
ML	340	0.0147	0.8064	0.2817	0.2116
IND	340	0.2000	1.0000	0.4975	0.1816
BRD	340	0.6021	1.0792	0.9155	0.0871
TAN	340	0.0001	0.8756	0.4762	0.2258
PFT	340	-0.2686	0.4182	0.1145	0.0963
SIZE	340	1.7282	5.5315	3.4005	0.7624
GR	340	-0.3998	1.7241	0.0657	0.1641

Pearson correlation matrix presented in table 3 shows that none of the independent variables have a high correlation to pose any serious methodological issue.

According to [47], a coefficient of above 0.80 among the independent variables may present the multicollinearity.

Table 3: Pearson Correlation Covariance Matrix

VAR	BL	ML	BRD	IND	INDD	TAN	PFT	SIZE	GR
BL	1								
ML	.885#	1							
BRD	.119*	.197#	1						
IND	-.310#	-.278#	-.340#	1					
INDD	-.232#	-.188#	-.129*	.789#	1				
TAN	-.024	-.060	.005	-.095	-.066	1			
PFT	-.251#	-.331#	.186#	-.255#	-.190#	.198#	1		
SIZE	.477#	.549#	.512#	-.453#	-.291#	.112*	.145#	1	
GR	.105	.010	.086	-.084	-.027	-.047	.105	.051	1

Correlation is significant at 0.01 level (2-tailed)

* Correlation is significant at 0.05 level (2-tailed)

The results of the two baseline panel regression models are presented in table 4.

Table 4: Panel regression results

Variables	Model 1	Model 2
Constant	-1.2336*	-1.2295*
	-2.2599	-2.0719
IND	0.0462	
	1.6214	
INDD		0.0181*
		2.2288
BRD	0.0520	0.0482
	0.6852	0.7330
TAN	0.1255**	0.1254**
	4.3326	3.9611
PFT	-0.3026**	-0.2989**
	-3.9232	-3.9887
SIZE	0.4184**	0.4214**
	4.0876	3.8937
GROW	0.0051	0.0033
	0.2602	0.1810
Year effects	YES	YES
Industry effects	YES	YES
R-squared	0.9372	0.9376
F-statistic	322.1049**	324.4617**
Durbin-Watson stat	1.7629	1.7482

Dependent variable: BL

* Significant at 0.01 level

** Significant at 0.05 level

We can infer from the results of model 1 that board independence has a positive sign but not statistically significant as hypothesized. Our results that the relationship between board independence and debt is insignificant is in line with an earlier study carried out by [48]. Corporate governance control variable has the expected positive sign but not

statistically significant. All the firm-specific control variables excepting growth opportunities are statistically significant. Larger firms and firms with higher level of fixed assets have higher levels of debt. Firms with higher levels of profit have lower level of debt. That larger firms have more debt is in line with the findings of many earlier works. (See for example, [39]) Trade-off theory argues that larger firms face lower bankruptcy risk because of diversified operations. They employ more debt. Firms with higher investment in fixed assets can offer collateral for debt without fear of bankruptcy. So tangibility and debt move in the same direction. This finding is in line with the findings of some of the earlier works. (See for example, [37]) We find that firms with higher levels of profitability will have less debt. This may indicate that higher profitability firms have higher retained earnings which reduces the need for debt. Results of model 2 show that firms with excess independence employ more debt. The results in respect of all other variables are identical to the results produced by model 1. Our result about the relationship between excess independence and debt is in line with our hypothesis. Firms with excess board independence employ more debt.

Table 5: Robustness panel regression results

Variables	Model 3	Model 4
Constant	-1.9279**	-1.9597**
	-5.9040	-4.9971
IND	0.0341	
	1.4127	
INDD		0.0229**
		2.1274
BRD	0.0235	0.0140
	0.4860	0.3284
TAN	0.0579**	0.0583**
	3.6384	3.7002
PFT	-0.2899**	-0.2820**
	-3.0827	-3.1154
SIZE	0.4651**	0.4723**
	5.6483	6.3945
GROW	-0.0190	-0.0222
	-0.8931	-1.0374
Year effects	YES	YES
Industry effects	YES	YES
R-squared	0.9259	0.9271
Adjusted R-squared	0.9225	0.9238
F-statistic	269.8019**	274.5946**
Durbin-Watson stat	1.6455	1.6447

Dependent variable: ML

* Significant at 0.01 level

** Significant at 0.05 level

5 Conclusion and Interpretation of Results

We test the relationship between the number of independent directors on the board and the debt for a sample of 68 listed firms on Saudi Arabian stock exchange. We employ two measures that account for the representation of independent directors, board independence and excess independence. Board independence is the ratio of number of independent directors to total number of directors on the board and excess independence is a dummy variable which is assigned 1 when the proportion of independent directors on the board is in excess of regulatory minimum and 0 otherwise. We find that board independence and debt share a positive relationship which is not statistically significant, while the link between excess independence and debt, defined both as book debt and market debt, is positive and is statistically significant. Excess independence variable measures if the insider directors are replaced by independent directors thus shrinking the number of board positions held by them. We believe that the excess independence is a proxy for the firm's commitment to conflict resolution between shareholders and managers by increasing the effectiveness of board monitoring ability. Our results are in line with the findings of many earlier work that show negative link between higher proportion of independent directors and lower cost of debt (See for example, [35])

The finding could be explained in two folds: First, independent board members have absolutely no stake, whatsoever with the firm. These board members are bound to be concerned about their reputation and would like to deliver results. They are oriented towards financial performance of the firm and hence, force managers to employ higher levels of debt. Debt increases the bankruptcy risk and this pressurizes the managers to perform better to deliver higher financial performance. As the independent directors replace the inside directors, the debt holders are convinced about the presence of a good monitoring mechanism to discipline the managers and also mechanism to monitor insider-managers collusion against debtholders and they are willing to offer more debt. On the contrary, presence of a board with majority of insiders as board members may focus on the capital preservation and may employ less than optimal debt.

Our findings have important implications for the corporate governance structures of firms. This has important implications for the regulators and firms. An analysis of our sample firms show that many of the listed firms in Saudi Arabia are in favor of excess board independence.

Table 6: Year-wise number of firm with excess independence

		2010	2011	2012	2013	2014
Firms	with	38	36	32	33	32
excess independence						

Around 50 per cent of the firms have excess independence all through the study period. A firm wise analysis show that 23 sample firms have excess independence during all the five years of study and 18 firms do not have excess independence during all the five years of study. A year-wise analysis for the individual firms shows more firms are moving towards excess independence. The above data shows that listed firms in Saudi Arabian stock exchange have a board structure that is tilted towards higher representation by the independent directors which goes to show their willingness to implement voluntary monitoring mechanisms. We find that increasing board independence is not just

important for the shareholders to resolve their conflicts with managers, but also for the debt holders of the firm. The findings of our study has important implications for the regulators and firms. Regulators in Saudi Arabia can breathe a sigh of relief.

Listed companies in Saudi Arabia are interested in strengthening their board structures with increased number of independent directors higher than the regulatory requirement which reduces the need for enforcement of board composition clause of corporate governance regulations. Besides increased availability of debt finance, effective board monitoring associated with excess independence may bring additional benefits like limits on earnings management. (See for example, [49]; [50])Firms benefit from substituting some of the insiders board positions with independent directors. They can access debt market with ease. This can automatically resolve the agency conflicts and maximize their firm value.

Our study has an important limitation. We have not incorporated the ownership structure of the firms in our study. Further research can be carried out by including more variables like ownership structure and dividend policies of the firms.

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