

Corporate Governance in Jamaica: A Risk Management Approach

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Abstract

This study examined how both board composition and ownership structure impact the riskiness and value of publicly traded non-financial firms in Jamaica. The study found that increasing managerial ownership was associated with larger weekly returns. In addition, the riskiness of the firm was influenced by the ownership structure and board composition. Specifically, riskier firms have a greater percentage of inside directors and have top ten shareholders that hold a smaller fraction of the firm. Even though inside directors are associated with riskier firms, these directors did not appear to increase firm value as measured by weekly returns of their firms.

Keywords: corporate governance, risk, ownership structure, board composition, Jamaica

1. Introduction

Numerous studies have indicated that board composition and ownership structure can impact firm performance (Coles, Daniel & Naveen, 2008). Other studies have examined the relationship between firm risk and ownership structure for example Gadhoum and Ayadi (2003), while others, Coville (2011) and Brick and Chidambaram (2008) have examined the relationship between board composition and firm risk. However, not many studies have looked at how board composition and ownership affect the riskiness and the value of the firm in developing economies. Most of the studies conducted in developed countries found contradictory evidence on the relationships between ownership structure, risk and value, while Jahmani and Ansari (2006) found no relationship between ownership structure risk and value. The aim of this paper is explore the cost and benefit of increased risk taking behavior, and to determine if board composition and ownership structure affect the riskiness and value of the firm in a small developing economy.

1.1 The Problem

The study examines how both board composition and ownership structure impact the riskiness and value of publicly traded non-financial firms in Jamaica. Policy-makers across the world, including those in Jamaica, are becoming increasingly aware of the need to encourage appropriate governance mechanisms in order to encourage economic growth and development of capital markets. The need for appropriate corporate governance mechanisms has become increasingly more important to the Jamaican society in the aftermath of the country's financial crisis of the late 1990s. Subsequent to the financial crisis, banking laws and regulations have been tightened, and The Company Act legislation has been passed. The financial sector has also seen the emergence of a junior stock market whereby small firms can have easier access to equity capital for growth and expansion.

There have been few academic studies on Jamaican publicly traded firms that examine ownership structure, board composition and their impact on the riskiness of the firm. This study will attempt to fill that gap. Wright et al. (1996) and others have argued that increased risk taking makes economic sense only for firms with growth opportunities. Thus, the introduction of the junior stock exchange in 2010 allows for empirical testing of riskiness between established firms traded on the main exchange, and smaller (presumably growth) firms traded on the junior market.

1.2 Importance of the Study

The capital market in Jamaica is poorly developed. Trading activity is relatively thin, as most of the firms have very large block shareholders; most of whom are not institutional investors. The corporate bond market is

virtually non-existent; therefore firms rely mainly on bank loans for capital. The main stock exchange has been operating since 1968; nevertheless, there are only 18 non-financial firms that are currently trading on the main index and 13 non-financial firms on the junior market. Research to determine the best practices in corporate governance is therefore needed to enhance investor confidence and further develop the capital markets. Development of the capital markets has become increasingly more important with the passage of the new Pension Act which allows individuals to create and maintain personal tax- advantaged retirement plans.

The rest of the paper is organized as follows: Section 2 presents the review of existing literature on the effects ownership structure and board composition have on firm risk. Section 3 describes the methodology and data. Section 4 discusses the findings, and Section 5 concludes the paper.

1.3 Literature Review

1.3.1 Board Composition and Risk

An individual's decision to engage in risky activities depends on inter alia individual and economic factors. According to Damodaran (2008), risk taking behavior is related to the individual traits and characteristics, for example, male vs. female, young vs. old, naïve vs. experienced. Damodaran cited several studies that argue that women in senior positions are less risk averse than their male counterparts; younger single individuals are less risk averse than older married individuals; and more experienced persons are more risk averse than naïve persons. In addition, Damodaran quoted other studies that indicated that more frequent monitoring leads to less risky decision-making. This would suggest that boards that are dominated by women, and/or young individual with significant expertise in the firm's industry, and which do not meet frequently, would tolerate more risk taking behavior. This could also suggest that firms with outside naïve directors who are not experts in the field would limit managerial risk taking behavior vis-à-vis firms that have more insiders on their boards.

Several researchers have explored the relationship between independent (outside, non-executive) directors and the riskiness of the firm. Based on the works of other researchers, Brick and Chidambaran (2008) posited that monitoring is decreased as risk increases. This is so because the higher the information asymmetry, the higher the verification costs. Using marginal cost/ benefit analysis, the optimal level of monitoring will be lower for firms with greater information asymmetry. Rachdi and Ben Ameer (2011) found in their study of 11 large Tunisian banks that smaller boards (presumed lower monitoring and lower verification costs) were associated with better performance and more risk taking, while boards with independent directors resulted in lower performance with no significant effects on risk taking. On the other hand, Kyereboah-Coleman and Biekpe (2007) in a study of 22 publicly traded Ghanaian firms partially supports this theory as they found that firm level risk (measured by earnings volatility) decreased with outside directors. However they found that firm risk increased with increasing board size.

Brick and Chidambaran (2008) used proxies for level of board monitoring—(i) the number of independent directors and (ii) the percent of independent directors. They used stock volatility as a proxy for firm riskiness. They found a negative relationship between firm risk and the level of board monitoring. They also found that the sensitivity of this negative relationship decreased over the time period 1996–2003 (encompassing the 1998 Blue Ribbon Committee Report and the 2002 Sarbanes-Oxley Act (SOX)). They also found that prior to 1999, there was a significant difference in the volatility of stock returns between firms that had more than 50% independent directors and those with less than 50% independent directors. This disappeared after 1999. The authors assumed that the increasing public attention and greater focus on corporate governance encouraged firms to increase board independence and monitoring as they found that the increased monitoring began several years prior to the passage of the SOX.

The imposition of external regulation to increase independence and board monitoring may pose undue burden for high risk (high information asymmetry) firms. Thus if the higher cost (verification costs) of independence and board monitoring is not matched by any increased benefits to shareholders, then this may explain the reduction in risk adjusted returns documented by Coville (2011). Using risk adjusted returns (scaled by standard deviation to incorporate both beta and non-systematic risk) Coville (2011) found firms that were required to use independent directors based on the Sarbanes-Oxley Act had significantly lower risk adjusted returns. However, his study revealed that the standard deviation of daily stock returns fell from 0.03% to 0.02%.

1.3.2 Ownership and Risk

The research on ownership structure and risk is much more extensive. Earlier works by Jensen and Meckling (1976) and Jensen and Murphy (1990) suggested shareholdings by corporate insiders may result in greater risk taking. Based on their analysis of the prior literature, Gadhoum and Ayadi (2003) concluded that there is a

positive relationship between firm risk taking and insider holdings since insiders are better able to exploit risk taking opportunities (without the verification costs). On the other hand, the authors argued that higher insider stakes could reduce risk taking behaviors due to reduced personal diversification. Wright et al., (1996) recognized that increasing insider's stake may represent a significant portion of the insider's personal wealth hence there may be less incentives for reducing risk. It is therefore possible that there will be risk reduction at very high levels of insider ownership. These researchers also argued that growth opportunities can influence risk taking. Firms with limited growth opportunities may therefore not find it economically beneficial to take more risk.

Wright et al., (1996) found that for growth firms there was a positive and significant relationship between risk taking with low insider equity ownership (<7.5%). However, this relationship became negative for growth firms with high insider equity ownership. For firms without growth opportunities there was no significant relationship between risk and insider equity ownership or institutional ownership. In addition, the relationship between block-holder ownership and corporate risk taking is not significant. In contrast, Gadhoun and Ayadi, (2003) who also found that the firm's level of risk is negatively related to its ownership structure; while Hassam et al. (2005) discovered in their study of financial institutions a positive relationship between equity risk and ownership structure measured by the percentage of shares held by the largest shareholder on the board. Hence the prior literature implies that the relationship between risk and ownership is mostly likely nonlinear.

1.3.3 Ownership and Value

Ownership structure has also been shown to affect the value of firms (Shleifer & Vishny, 1986; McConnell & Searves, 1990). In general, firm value tends to increase with greater institutional shareholdings; institutional investors are assumed to provide better monitoring of the firm, thus increasing firm value, or these investors may be simply invest in the better managed firms. Turki and Sedrine, (2012) examined the interrelationship between ownership structure, board characteristics and firm performance of non-financial publicly traded firms in Tunisia. Using market to book value ratios as a measure of firm performance, they found that increased ownership concentration is associated with lower firm performance, while increased managerial ownership is consistent with better firm performance. "In another non US based study, Garcia-Meca and Sanchez-Ballesta, (2011) did not find any linear relationship between firm value and ownership structure. However, they found a non-linear relationship with break point at about 60% for block shareholders only (> 5% holdings). When ownership concentration is measured by holdings by directors or banks there was no significant relationship. The authors concluded that these results that are different from those found in more developed markets are due to the controlling power of concentrated ownership rendering other control mechanisms less effective. In addition, the authors argued that ownership as a control mechanism is more important in countries with lower levels of investor protection.

Ownership can also affect the riskiness of the firm—a large ownership proportion by insiders can lead to higher risk taking since the insiders with superior expertise and knowledge are better positioned to take additional risk. On the other hand, a large ownership stake by insiders can result in more risk averse decision-making—the opposite of the house money effect. The aim of this paper is to determine if the board composition and ownership structure affect the value and riskiness of publicly traded firms in Jamaica. The firms that are traded on the junior stock exchange will proxy for the growth firms while the firms traded on the main index will be considered the mature firms.

2. Method & Data

The data set for this study was obtained from the Jamaica Stock Exchange (JSE) and the firms' annual reports. There are eighteen non-financial firms traded on the main JSE, complete data were obtained for all but one firm. Complete data were also collected from seven of the firms that traded on the junior stock exchange. The value of the firms was approximated by the average weekly returns (including dividends) from October 2010 (or earliest trading day if the stock's Initial Public Offering (IPO) was after October 2010), to October 2012. The riskiness of the firm was measured by the standard deviation of the weekly returns over the same period. Board composition measured size, percentage insiders, and the percentage of female directors were taken from the firms' annual reports. Also obtained from the latest (2011 and 2012) annual reports were the percentage of the equity held by directors, the largest ten shareholders, senior managers, and the percentage of the equity held by institutional investors who were among the top ten shareholders.

The number of data points was very small, resulting in some concern about the power of the analyses, thus a "robust" regression model which minimizes the effects of outliers was used. The average returns were computed

using weekly price data rather than by daily prices since some stock did not trade every day. This virtually eliminated the number of zero returns that resulted from no trading as opposed to trading with no price change.

To describe the relationship between risk and value, with board composition and ownership structure we use the following two models:

Model 1: Risk = f (board composition, ownership structure).

Model 2: Value = f (board composition, ownership structure).

Risk is measured by the standard deviation of weekly stock returns and the average weekly stock returns is used as a proxy for the value of the firm. Measures of board composition include the size of the board, the percentage of female board members, the percentage of inside board members. The measures of ownership structure include the percentage of the firm that is held by institutional investors, board members, top management, and the cumulative holdings of the top ten shareholders.

3. Results and Discussion

Descriptive statistics for the dependent and independent variables are provided in Table 1. The average board size was 8.6 directors (median 8), and about 17% were female directors, and 28% of board members were insiders. Though these are publicly traded firms, the top shareholders held on average 79% (median of 87%) of the total number of shares outstanding. Institutional investors held on average 12% (median 7%) of the shares and insiders held on average almost 30% of the shareholdings. The average board shareholding was 36% with a smaller lower median of 20%. The average managerial shareholding was 19% while the median was 1.5%, suggesting that there were only a few firms where the senior managers held a significant percentage of the equity. Average weekly returns were about 0.3% with a standard deviation of about 5%.

Table 1. Descriptive statistics

	Weekly Returns	Weekly Standard deviation	Top ten Shareholding	Board Shareholding	Board Size	% Female	% Insider	Institutional Shareholding	Managerial Shareholding
Mean	0.3%	5.1%	79.3%	36.4%	8.6	17.0%	28.3%	11.9%	19.2%
Median	0.2%	4.9%	87.2%	20.4%	8.0	16.7%	28.6%	7.4%	1.5%
Min	-0.9%	1.2%	27.9%	0.0%	5	0.0%	9.1%	0.0%	0.0%
Max	1.9%	10.4%	95.0%	83.4%	14	40.0%	71.4%	60.4%	80.2%
N	25	25	24	24	25	25	25	24	24

Regression analyses were done to determine if the riskiness of the firm (measured by the standard deviation of the daily returns as the dependent variable) is related to board composition and ownership structure. Given the small sample size, several regressions were done with a small number of independent variables in each model. Managerial shareholdings and average weekly returns were highly correlated ($\rho = 0.722$ and significant at the 1% level) so to avoid multicollinearity these two variables were not included in the regression at the same time. The best results (in terms of R^2 and AIC) are given in Table 2. Notwithstanding the small sample size, the models were able to explain between 26% and 30% of the variance in standard returns. The weekly returns were included in the model since higher risk firms are expected to have greater returns. In addition to weekly returns, the riskiness of the firm was increasing in insider percentage, and the largest ten shareholders, but decreasing in board shareholdings.

Table 2. Regression analysis of riskiness, board composition and ownership structure dependent variable is the standard deviation of weekly stock returns

Model 1A: Regression #1

Parameter	Estimate	Standard Error	Pr>ChiSq
Intercept	-0.0007	0.0233	0.9765
Percentage Insiders	0.0540	0.0313	0.0840
Board Shareholding	-0.0201	0.0126	0.1095
Top ten Shareholding	0.0428	0.0255	0.0931
Weekly Returns	3.3381	0.8397	0.0110
R²	29.6%		

Model 1B: Regression #2

Parameter	Estimate	Standard Error	Pr>ChiSq
Intercept	0.0364	0.0095	0.0001
Percentage Insiders	0.0717	0.0232	0.0020
Board Shareholding	-0.0277	0.0100	0.0054
Institutional Shareholding	-0.0079	0.0213	0.7100
Weekly Returns	2.0112	0.5646	0.0004
R²	26.2%		

Independent variables that were not significant (results not shown) were percentage female and whether or not the firm was traded on the junior market. Surveys cited in Damoradan (2008) suggested that females at the top of the corporate ladder were willing to take risks; this result was not supported in this study. One possible explanation is that the vast majority of the boards had a single woman, that is, there was not enough variation in gender distribution to generate any statistical significance. Surprisingly, the firms that are traded on the junior exchange did not have a significantly higher standard deviation, given that these are assumed to be younger growth firms. The positive and significant coefficient on the percentage of insiders on the board is consistent with other studies that indicated that insiders are in a better to position (lower verification costs and expertise) to engage in riskier projects.

Ownership structure does significantly affect the riskiness of the firm. Increases in board shareholdings result in lower risk. This is consistent with directors being risk averse given that a large portion of their wealth is tied to the firm and the subsequent loss of personal diversification (Wright et al., 1996). Institutional shareholdings did not impact the riskiness of the firm (p value > 0.7). This is not surprising as institutional shareholders in Jamaica are not generally activist shareholders. When ownership structure is measured by the top ten shareholders, firm riskiness becomes marginally greater with the increase in these block holders share of the firm.

The analysis of the returns (value) of the publicly traded firms based upon ownership structure and board composition was not as conclusive as the risk analysis. The best two regressions are given in Table 3.

Table 3. Regression analysis of value, board composition and ownership structure dependent variable is the standard deviation of weekly stock returns

Model 2A:

Parameter	Estimate	Standard Error	Chi-Square	Pr>ChiSq
Intercept	-0.0076	0.0054	1.99	0.1578
Percentage Insiders	0.0034	0.0073	0.22	0.6403
Institutional Shareholding	0.0049	0.0063	0.60	0.4395
Managerial Shareholding	0.0135	0.0035	15.16	<.0001
Top ten Shareholding	0.0083	0.0053	2.42	0.1202
R ²	42.1%			

Model 2B:

Parameter	Estimate	Standard Error	Chi-Square	Pr>ChiSq
Intercept	-0.0062	0.0051	1.45	0.2281
Percentage Insiders	0.0024	0.0072	.012	0.7344
Top ten Shareholding	0.0078	0.007853	2.19	0.1388
Managerial Shareholding	0.0127	0.0033	14.61	0.0001
R ²	40.1%			

The GLM regression models explained 40% and 42% of the variance in weekly returns. Managerial shareholdings were the only independent variable that was statistically significant; increases in managerial share ownership resulted in larger weekly returns (value). This increase in value is consistent with several empirical and theoretical studies on managerial bonding (see Morck et al., 1988; Jensen & Meckling, 1976). Weekly returns were also positively correlated to the top ten block share holdings but not significantly so. Surprisingly, the coefficient on institutional shareholdings was positive but not significant (p value > 0.43), this is contrary to many studies that institutional shareholdings have a positive effect on firm value. However, these results are only partially consistent with Ming & Gee, (2008) a study of publicly traded Malaysian firms. These authors did not find any statistical increase in firm value with greater managerial or institutional shareholdings. Despite having a greater percentage of inside directors that resulted in significant increases in the riskiness of the firm (Table 2), more insiders did not significantly increase the weekly returns (p values > 0.64).

4. Conclusion

Our study provides an interesting contrast to developed countries that have developed capital markets, stronger governance mechanisms, and regulations that protect shareholders. We sought to increase the understanding of how board composition and ownership structure impact the riskiness and value of publicly traded non-financial firms in Jamaica, a developing country. We found that greater managerial ownership was associated with larger weekly returns and this is consistent with the managerial ownership theory proposed by Jensen and Meckling (1976). Managers with large equity stakes will increase their wealth whenever the value of the firm rises. Market participants may, therefore, be able to improve their investment yields by holding equity stakes in firms with larger managerial ownership. In addition, regulations that encourage firms to increase equity held by managers would be beneficial to firm value resulting in greater equity participation, and stronger financial markets. These regulations would be paramount to Jamaica as it seeks to attract foreign investors and to become more competitive in the global marketplace.

We also found that weekly returns were positively related, although not significant, to the top ten shareholders. This could be as a result of these shareholders having more power, and more contacts to seize opportunities that are beneficial to them, and, which could support our finding that firm riskiness was increasingly greater when there was an increase in the top ten shareholders stake in the firm.

In addition, our analyses also highlighted that the standard deviation of the returns (riskiness) is influenced by the ownership structure and board composition. Specifically, riskier firms have a greater percentage of inside directors and also have top ten shareholders who own a smaller fraction of the firm. Even though inside

directors are associated with riskier firms, these directors did not appear to increase firm value as measured by weekly returns of their firms. A greater proportion of insiders may, therefore, not be beneficial to the firm as increased riskiness is beneficial only when it results in higher firm value. Consequently, policymakers need to review the rules that relate to the proportion of insider directors who serve on boards of publicly traded firms. One of the limitations of the study was the small number of data points, and this could present an opportunity for future research to include other firms listed on regional stock exchanges. This would allow for greater generalization.

Our study enriches the growing body of knowledge on ownership structure, board structure, board composition and their impact on the riskiness of firms. The results provide a valuable framework not only for Jamaica, but also for other developing countries that are seeking to encourage economic growth and development of capital markets.

References

- Brick, I. E., & Chidambaran, N. K. (2008). Board monitoring, firm risk and external regulation. *Journal of Regulatory Economics*, 33, 87–116. <http://dx.doi.org/10.1007/s11149-007-9045-9>
- Coles, J., Daniel, N., & Naveen, L. (2008). Boards: Does one size fit all? *Journal of Financial Economics*, 33, 329–356. <http://dx.doi.org/10.1016/j.jfineco.2006.08.008>
- Coville, T. (2011). Sox generated changes in board composition: Have they impacted risk-adjusted returns?. *Review of Business*, 32(1), 5–16.
- Damodaran, A. (2008). *Strategic risk taking, a framework for risk management*. Wharton School Publishing.
- Gadhoun, Y., & Ayadi, M. A. (2003). Ownership structure and risk: A Canadian empirical analysis. *Quarterly Journal of Business and Economics*, 42(1/2), 19–39.
- Garica-Meca, E., & Sanchez-Ballesta, J. P. (2011). Firm value and ownership structure in the Spanish capital market. *Corporate Governance*, 11(1), 41–53. <http://dx.doi.org/10.1108/14720701111108835>
- Hassan, M. K., Karels, G. V., & Wilcox, S. E. (2005). Impact of ownership structure and regulation the risk-taking behavior of depository institutions. *Journal of Financial Management and Analysis*, 18(2), 34–40.
- Jahmani, Y., & Ansari, M. (2006). Managerial ownership, risk and corporate performance, *International Journal of Commerce & Management*, 16(3/4) 212–221. <http://dx.doi.org/10.1108/10569210680000218>
- Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305–360. [http://dx.doi.org/10.1016/0304-405X\(76\)90026-X](http://dx.doi.org/10.1016/0304-405X(76)90026-X)
- Jensen, M., & Murphy, K. (1990). Performance pay and top management incentives. *Journal of Political Economy*, 98, 225–264. <http://dx.doi.org/10.1086/261677>
- Kyerboah-Coleman, A., & Biekpe, N. (2007). On the determinants of board size and its composition: additional evidence from Ghana. *Journal of Accounting and Organizational*, 3(1), 68–77. <http://dx.doi.org/10.1108/18325910710732867>
- McConnell, J. J., & Servaes, H. (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial Economics*, 27, 595–612. [http://dx.doi.org/10.1016/0304-405X\(90\)90069-C](http://dx.doi.org/10.1016/0304-405X(90)90069-C)
- Ming, T. C., & Gee, C. S. (2008). The influence of ownership structure on the corporate performance of Malaysian public listed companies. *SEAN Economic Bulletin*, 25(2), 195–208. <http://dx.doi.org/10.1355/AE25-2E>
- Morck, R., Shleifer, A., & Vishny, R. (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics*, 20(1/2), 293. [http://dx.doi.org/10.1016/0304-405X\(88\)90048-7](http://dx.doi.org/10.1016/0304-405X(88)90048-7)
- Rachdi, H., & Ameer, I. G. (2011). Board characteristics, performance and risk taking behavior in Tunisian banks. *International Journal of Business and Management*, 6(6), 88–97. <http://dx.doi.org/10.5539/ijbm.v6n6p88>
- Shleifer, A., & Vishny, R. (1986). Large shareholders and corporate control. *Journal of Political Economy*, 94, 461–488. <http://dx.doi.org/10.1086/261385>
- Turki, A., & Ben Sedrine, N. (2012). Ownership structure, board characteristics and corporate performance in Tunisia. *International Journal of Business and Management*, 7(4), 121–132. <http://dx.doi.org/10.5539/ijbm.v7n4p121>

Wright, P., Ferris, S. P., Sarin, A., & Awasthi, V. (1996). Impact of corporate insider, blockholder and institutional equity ownership of firm risk taking. *Academy of Management*, 39(2), 441–463. <http://dx.doi.org/10.2307/256787>

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