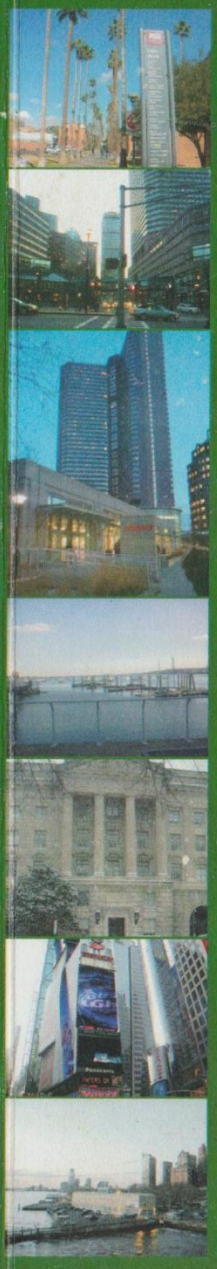

CONTEMPORARY SCIENCE ASSOCIATION • NEW YORK



# Proceedings of the 2nd International Conference on Business and Economy-Constantza

Volume 2

November 11-12, 2010

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Addleton Academic Publishers
NEW YORK

**Addleton Academic Publishers**
www.addletonacademicpublishers.com,
editors@addletonacademicpublishers.com
30-18 50th Street, Woodside, New York, 11377

ISBN 978-1-935494-18-8
Library of Congress Control Number: 2010915980



Addleton Academic Publishers is an imprint of RIOTS, New York



This volume is a direct offshoot of *The 2nd International Conference on Business and Economy-Constantza* (November 11–12, 2010).

**CSA Congresses are affiliated with the international peer-reviewed academic journals edited by Addleton Academic Publishers, New York.**



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Addleton Academic Publishers

*Proceedings of the 2nd ICBE*, Constantza, November 11–12, 2010, ISBN 978-1-935494-18-8, pp. 180–197

# PANEL DATA ANALYSIS OF MALAYSIAN LISTED BANKS ON CORPORATE GOVERNANCE AND RISK

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ABSTRACT. The objective of this paper is to examine the impact of corporate governance on the risk of banks. A sample of twelve listed bank holding companies has been examined over a ten-year period (1996-2005). Based on the panel data analysis, separate board leadership structure, higher proportion of independent directors, smaller size board, lower director ownership, higher institutional ownership and higher block ownership seem to have lower risk. The study applies the agency theory. All findings except director ownership are in line with theoretical expectation. It might be due to three main reasons discussed in the paper.

## Introduction

Issues of corporate governance have emerged with the birth of the corporation and hence they are not new issues (Vinten, 1998). However, it becomes an attractive issue in Asian countries, including Malaysia in late 1990s following the 1997-1998 crises (Cheung & Chan, 2004; Tze, 2003). Agency theory and many corporate guidelines suggest having a good corporate governance system for the



betterment of the corporation. Corporate governance of banks seems to be more important than other industries because the banking sector plays a crucial financial intermediary role in any economy. Poor corporate governance of the banks can drive the market to lose confidence in the ability of a bank to properly manage its assets and liabilities, including deposits, which could in turn trigger a liquidity crisis and then it might lead to economic crisis in a country and pose a systemic risk to the society at large (Cebenoyan & Strahan, 2001; Basel Committee on banking supervision, 2005; Alexander, 2006; Garcia-Marco & Robles-Fernandez, 2008). Furthermore, Das and Ghosh (2007) and How, Abdul Karim and Verhoven (2005) stressed on the essential role of financial industry. According to Das and Ghosh (2007), the health of the financial sector is important since its failure can disrupt economic development of the country. Hence, the risk faced by banks is a great concern to policy makers and it has been reflected in Basel Committee's the risk-based capital adequacy guideline (How, Abdul Karim & Verhoven, 2005). Due to that it is interested to examine the impact of corporate governance on risk in the banking sector.

## Corporate governance and risk

Greuning and Bratanovic (2003) state that due to liberalization and the volatility of financial markets increased competition among the financial institutions, exposing them to new risks and challenges and requiring the continuous innovation of ways manage business. Because of this, banking Institutions are highly regulated compared to others. However, bank regulators and supervisors cannot prevent bank failures since their main role is to act as facilitators in the process of risk management and to enhance and monitor the statutory framework in which risk management is undertaken. According to them, ultimate responsibility lies with board of directors since they set the strategic direction, appoint management and establish operational policies for ensuring the soundness of a bank.

Derwall and Verwijmeren (2007) find that better governance is associated with lower systematic risk, as measured by a firm's beta. Similarly, Ashbaugh-Skaife, Collins and LaFond (2006) also highlight the corporate governance can affect the bond ratings of the firms due to probability of default risks arisen from the agency conflicts. According to them, poor governance can create the agency

conflict between shareholders and bondholders since firms' profit might be allocated more to pay dividend and the existence of tendency to invest in risk projects so that it might affect future cash flows and consequently result in the default risk. Their study finds that credit ratings are negatively associated with the board independence, board stock ownership and they conclude that good governance mechanisms will be able to monitor the management independently and promote effective managerial decision making that increase firm value and guard against the management opportunistic behavior that decreases firm value and able to be benefit to all the stakeholders.

**Theoretical framework and literature review**

According to Jensen and Meckling (1976) as quoted by McColgan (2001), due to the separation of ownership and control, agency problems, i.e. moral hazard (hidden action) and adverse selection (hidden information) could occur and the directors might maximize their own interests at the expense of the shareholders. Thus, the main issue from the agency theory is the existence of agency cost (Williams et al., 2006). The suggested mechanism to minimize this cost is good corporate governance (Gursoy & Aydogan, 2002; Judge et al., 2003) since it promotes goal congruence among principals and agents (Conyon & Schwalbach, 2000). Short el al. (1999) and Cheung and Chan (2004) also describe that the ultimate goal of corporate governance is to monitor the management decision-making in order to ensure that it is in line with shareholders' interests, and to motivate managerial behavior towards enhancing the firms' wealth. The following discussions provide some explanations of corporate governance mechanisms from the agency theory perspective.

*Agency Theory and Separate Leadership Structure* - Agency theory argues for a clear separation of the responsibilities of the CEO and the chairman of the board and seems to prefer to have separate leadership structure (Jensen & Meckling, 1976; Fama & Jensen, 1983; Jensen, 1993). The reason is that since the day-to-day management of the company is led by the CEO, the chairman of the board, as a leader of a board, needs to monitor the decisions made by the CEO which will be implemented by the management and to oversee the process of hiring, firing, evaluating and compensating the CEO (Brickley et. al, 1997; Weir, 1997). If the CEO and the



chairman of the board is the same person, there would be no other individual to monitor his or her actions and CEO will be very powerful and may maximize his or her own interests at the expense of the shareholders. The combined leadership structure promotes CEO entrenchment by reducing board monitoring effectiveness (Finkelstein & D' Aveni, 1994; Florackis & Ozkan, 2004). Thus, a separate leadership structure is recommended in order to monitor the CEO objectively and effectively.

*Agency Theory and Board Composition* - According to Choe and Lee (2003), board composition is very important to effectively monitor the managers and reduce the agency cost. Although the executive directors have specialized skills, expertise and valuable knowledge of the firms' operating policies and day-to-day activities, there is a need for the independent directors to contribute the fresh ideas, independence, objectivity and expertise gained from their own fields (Weir, 1997; Firth et al., 2002; Cho, 2003). Hence, the agency theory recommends the involvement of independent non-executive directors to monitor any self-interested actions by managers and to minimize agency costs (Kiel & Nicholson, 2003; Le et al. 2006; Florackis & Ozkan, 2004; Williams et al. 2006).

*Agency Theory and Board Size* - Jensen (1983) and Florackis and Ozkan (2004) mention that boards with more than seven or eight members are unlikely to be effective. They further elaborate that large board's result in less effective coordination, communication, and decision making, and are more likely controlled by the CEO. Yoshikawa and Phan (2003) also highlight that larger boards tend to be less cohesive and more difficult to coordinate because there might be a large number of potential interactions and conflicts among the group members (refer to Forbes and Milliken, 1999 and Lipton and Lorsch, 1992). In addition, Yoshikawa and Han (2003) further state that large boards are often created by CEOs because the large board makes the board members disperse the power in the boardroom and reduce the potential for coordinated action by directors, leaving the CEO as the predominant figure (in Leighton and Thain, 1997). In sum, smaller boards seem to be more conducive to board member participation and thus would result in a positive impact on the monitoring function and the strategic decision-making capability of the board, and independence from the management (Huther, 1997).

*Agency Theory and Ownership* - Agency theory stresses the importance of ownership structure in enhancing corporate governance.

It could be viewed from three different perspectives; (a) managerial ownership, (b) block ownership, and (c) institutional ownership. If directors own shares, the directors as the owners themselves are directly instructing and monitoring the management of the companies (Jensen & Meckling, 1976). Hence, there are likely to be fewer agency problems as compared to the situation where the directors, who are not the owners, supervise the management of the company. It is also supported by Seifert et al. (2005) who discuss agency conflicts.

With regard to block ownership, if an individual has a substantial amount of interest in a particular company (usually measured at 5%), he or she will be more interested in the company, compared to the shareholders who own a smaller number of shares because dispersed ownership may have less incentives to monitor management (Kang & Sorensen, 1999; Maher & Andersson, 1999; Kim & Lee, 2003). Lastly, regarding institutional investors, Hussain and Mallin (2002), Kim and Nofsinger (2004), Leng (2004), Soloman and Solomon (2004), Seifert et al. (2005), Le et al. (2006), Langnan, Steven and Weibin (2007) and Ramzi (2008) collectively agree on the important role of institutional shareholders in the monitoring of firms because of the following reasons; (a) institutional shareholders normally own substantial number of shares, (b) the potential benefits from their activism is large enough to be worth their effort, (c) they have less ability than individual shareholders to liquidate the shares without affecting the share price, (d) substantial influence on the management, (e) they seem to have a fiduciary responsibility towards the ultimate owners, and (f) they have ability to monitor executives since they are professionals.

## Research methodology

### *Hypotheses development*

Six hypotheses are developed in this study. They are as follows.

*Board leadership structure* plays an import role not only on firm performance but also the risks. Corporate governance literature points out that the separate leadership structure is essential to reduce the agency cost (Jensen & Meckling, 1976) because firms with separate leadership structure seem to be independent from the management. Thus, it could be assumed that when the separate leadership structure exists, the board might be able to monitor the management



independently and as a result, it is expected that firms with separate leadership structure might have lower risk than firms with combined leadership structure and the following hypothesis, in an alternative form, is developed. Therefore, the first hypothesis (stated in its alternative format) is stated as follows:

*$H_1$: Risk is negatively related to separate leadership structure.*

Regarding *board composition*, based on the agency theory, several researchers have suggested to have higher proportion of independent non-executive directors to reduce the agency problems. The idea behind the involvement of more independent non-executive directors on the board could make the board independent from the management and able to monitor the management effectively (Choe & Lee, 2003). The research findings of Bhojraj and Sengupta (2003) show that firms with stronger outside directors dominated board enjoys lower bond yields and higher bond ratings due to monitoring power of outside directors on the firms' risk. In addition, Brick and Chidambaran (2008) also find that board independence is negatively related to firms' risk. Hence, it is expected that higher proportion of independent non-executive directors might be able to lower down the risk faced by the firms. The second hypothesis, in an alternative form, is developed.

*$H_2$: Risk is negatively related to the proportion of independent directors on the board.*

*Board size* - in the case of board size, the assumption derived from the agency theory is that smaller board is recommended to reduce the agency cost, by effective control over the management and being independent from the management (Jensen & Ruback, 1983). It is expected theoretically that smaller board size should be able to reduce the risk due to its monitoring role in the risk diversifying process of the management and the third hypothesis, in an alternative form, is developed.

*$H_3$: Risk is positively related to the board size.*

*Ownership structure* - the agency theory stresses on the importance of ownership in enhancing corporate governance within a firm, and subsequently leads towards lower firm's risk. For example, through ownership, managers' interests could be aligned with the shareholders' interest, as managers have now become part of the owners. Hence, director ownership could be able to reduce the risk faced by the firms since the directors have the ownership interest to monitor the risk management process of the management (Beatty et

al., 1994; Pitts et al., 2003). With regard to the relationship between management ownership and risk, the findings of Beatty et al. (1994) and Pitts et al. (2003) show that managerial ownership and the risk are inversely related. Therefore, the fourth hypothesis, in an alternative form, is developed.

*$H_4$: Risk is negatively related to director ownership.*

Furthermore, the idea that could be derived from the agency theory is that, higher the ownership proportion is the more interest to monitor the firms. Accordingly, higher proportion of institutional ownership or block ownership could contribute to lower the risk of the firms because according to Sanders (1999: 64), "stock ownership should be a better incentive mechanism when firm risk is high" and the study by Garcia-Macro and Robles-Fernandex (2008) find that the shareholder concentration has a negative impact on the level of risk taking. In addition, the research findings of Bhojraj and Sengupta (2003) show that firms with greater institutional ownership enjoys lower bond yields and higher bond ratings due to monitoring power of the institutional owners on the firms' risk. The fifth and sixth hypotheses, in an alternative form, are developed. They are:

*$H_5$: Risk is negatively related to institutional ownership.*

*$H_6$: Risk is negatively related to block ownership.*

***Empirical Model, Sample selection, Variables, Statistical Methods***

In this section, the empirical model of the study will be presented. The dependent variable is the risk of the banks, which are measured using three proxies; standard deviation of monthly returns is used to measure market risk and ratio of total loans to total deposits and ratio of total loans to total assets are used to measure the asset-liability management (the liquidity) risk. There are six independent variables, which comprise of three conventional measures of corporate governance (i.e. board leadership structure, board composition and board size) and three measures of ownership structure (i.e. director ownership, institutional ownership, and block ownership). Finally, the empirical model of the study also includes four control variables; two control variables related to firm-specific characteristics (i.e. firm size and leverage), and two control variables related to economic environment (i.e. gross domestic product rate and economic crisis). The complete empirical model is as follow.



$$Y_{4it} = \beta_0 + \beta_1 x_{1it} + \beta_2 x_{2it} + \beta_3 x_{3it} + \beta_4 x_{4it} + \beta_5 x_{5it} + \beta_6 x_{6it} + \beta_7 x_{7it} + \beta_8 x_{8it} + \beta_9 x_{9it} + \beta_{10} x_{10it} + \mu_{it}$$

where, i = 1,2,3,4,5,6,7,8,9,10,11,12
T=1, 2, 3, 4, 5,6,7,8,9,10
$Y_4$= Risk measures are proxied by standard deviation of monthly stock return STD), loan to deposit ratio (TL_TD), and ratio of total loans to total assets (TL_TA)
$x_1$= Board leadership structure (BLS)
$x_2$= Proportion of independent non-executive directors on the board (INE_BZ)
$x_3$= Board size (BZ)
$x_4$= Proportion of director ownership (DOWN)
$x_5$= Proportion of institutional ownership (IOWN)
$x_6$= Proportion of block ownership (BOWN)
$x_7$= Log of total assets (TA)
$x_8$= Leverage (TD_TE)
$x_9$= Gross domestic product growth rate (GDP)
$x_{10}$= Economic crisis variable (DUM_CRISIS)
$\mu$= Error term

Samples include the twelve listed companies whose main activity is banking from 1996 until 2005. The total number of observations is 120 observations. However, some of the observations need to be dropped due to unavailability of data and some companies were not classified as banks in all the ten years' period. It left the final observations to 108 observations. Data were collected either from the annual reports of the companies or from Bloomberg. The proxies for efficiency are standard deviation of monthly returns is used to measure market risk and ratio of total loans to total deposits and ratio of total loans to total assets are used to measure the asset-liability management (the liquidity) risk. The control variables are total assets, leverage and economic crisis dummy. The statistical method used in this study is panel data analysis (generalized least square method). Generalized least square method is used because the sample data are not normally distributed and the data have either heteroskedasticity problem, autocorrelation problem or both. According to Gujarati (2003), using generalized least square method will overcome all these problems.

## Empirical results

Under this section, the descriptive statistics will be explained first. It will be followed by the discussions on the GLS multivariate regression results on the relationship between bank risk and corporate governance variables.

*Descriptive Statistics* - Table 1 shows the descriptive statistics of the variables used in the study. In case of board leadership structure, its mean value (0.81) shows that a majority of the companies have separate leadership structure although the minimum value (zero) shows that there are companies which have combined leadership structure. Similar to the recommendation of the MCCG (2001), the sample mean value (0.36) shows that ratio of independent directors is slightly more than one third of the total number of the directors. The mean value (8.23) of board size shows existence of a quite a reasonable board size, e.g. Jensen and Ruback (1983) suggest that a board size of not more than 7 or 8 members is considered reasonable in ensuring effectiveness. For ownership, the mean values of director ownership and institutional ownership are 0.02 and 0.17 respectively. The ownership of shares by directors can be considered very low where, on average, only 2 percent of shares owned by the directors. On the other hand, institutional investors, on average, owned 17 percent of shares, which could still be considered low although it is significantly higher than the ownership by the directors. In the case of block ownership, its mean value (0.53) shows that the significant portion of the shares is owned by large shareholders.

The mean values of dependent variables such as the standard deviation of monthly stock returns (STD), ratio of total loans to total deposits (TL_TD) and ratio of total loans to total assets (TL_TA) are 0.67, 101.01 and 60.38 respectively. Graph 1, 2 and 3 shows their yearly mean values from 1996 until 2005.

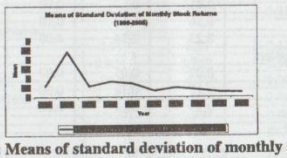
Based on those graphs, two measures of risk (i.e. STD and TL_TA) are quite volatile during the economic crisis period (i.e. 1997 and 1998). After this period, the risk measures become more stable. It could also been observed, that the above risk measures becomes lower in the later years of the study period. This might be due to the companies avoiding taking high-risk transactions. As for the firm-specific characteristics, the sample companies have the means values of RM45992.19 millions for total assets and 344.73 for



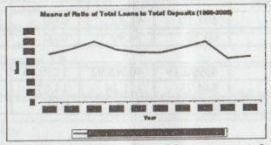
the ratio of total debt to total equity. Finally, the average GDP rate is 8 percent per annum.

*Findings of the Impact of Corporate Governance on Risk:* Since the risk is measured from two aspects, i.e. market and liquidity aspects, their findings are presented in the following paragraphs.

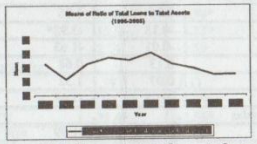
*Standard Deviation of Monthly Stock Returns as a Proxy of Market Risk* - Table 2 shows the GLS results for STD. The values of coefficients of INE_BZ and BOWN are in line with hypothesis, where INE_BZ is significant at one percent. However, BLS, BZ, DOWN and IOWN are not in line with what has been hypothesized and not significant. Therefore, the findings supported that higher INE_BZ (at 1-% Sig. level) has lower risk when STD is used as a proxy for market risk.



**Graph1: Means of standard deviation of monthly stock returns from 1996 to 2005**



**Graph 2: Means of ratio of total loans to total deposits from 1996 to 2005**



**Graph 3: Means of total loans to total assets from 1996 to 2005**

*Ratio of Total Loans to Total Deposits as a Proxy of Liquidity Risk* - Table 3 shows the GLS results for TL_TD. The findings of BLS, IOWN and BOWN have significant impact on TL_TD at 1 percent significant level and the signs of their coefficients are in line with what have been hypothesized. Although the results are not significant, the sign of coefficient of BZ is in line with hypothesis but INE_BZ and DOWN are not. Therefore, it is supported that at one percent significant level, separate BLS, higher IOWN and higher BOWN have lower risk when TL_TD is used as a measure for liquidity risk.

**Table 1: Descriptive Statistics Results**

| | Mean | Std. Dev. | Min | Median | Max |
|---|---|---|---|---|---|
| Independent variables | | | | | |
| *(a) CG variables* | | | | | |
| BLS | 0.81 | 0.40 | 0.00 | 1.00 | 1.00 |
| INE_BZ | 0.36 | 0.18 | 0.10 | 0.33 | 0.83 |
| BZ | 8.23 | 2.34 | 4.00 | 8.00 | 14.00 |
| *(b) Ownership variables* | | | | | |
| DOWN | 0.02 | 0.05 | 0.00 | 0.00 | 0.25 |
| IOWN | 0.17 | 0.18 | 0.00 | 0.09 | 0.64 |
| BOWN | 0.53 | 0.21 | 0.00 | 0.58 | 1.00 |
| Dependent variables | | | | | |
| *Risk variables* | | | | | |
| *(a) Market risk variable* | | | | | |
| STD | 0.67 | 1.00 | 0.06 | 0.42 | 7.03 |
| *(b) Liquidity risk variables* | | | | | |
| TL_TD | 101.10 | 41.42 | 0.00 | 96.75 | 371.52 |
| TL_TA | 60.38 | 14.90 | 0.00 | 64.01 | 80.48 |
| Control variables | | | | | |
| TA | 45992.19 | 40245.92 | 1120.36 | 33326.95 | 191895.30 |
| TD_TE | 344.73 | 331.14 | 14.03 | 223.80 | 1442.26 |
| GDP RATE | 0.08 | -0.05 | 0.02 | 0.09 | 0.14 |

**Table 2: GLS results of standard deviation of monthly stock returns**

| | Coefficient | T statistics | P value |
|---|---|---|---|
| *Independent variables* | | | |
| BLS | 0.06 | 1.86 | 0.06 |
| INE_BZ | **-0.15** | **-3.92*** | **0.00** |
| BZ | -0.01 | -1.63 | 0.10 |
| DOWN | 0.13 | 0.68 | 0.50 |
| IOWN | 0.07 | 1.32 | 0.19 |
| BOWN | -0.05 | -1.48 | 0.14 |
| *Control variables* | | | |
| LNTA | -0.02 | -1.09 | 0.28 |
| TD_TE | 0.00 | 0.16 | 0.87 |
| GDP RATE | **-0.64** | **-8.24*** | **0.00** |
| DUM_CRISIS | **0.10** | **7.91*** | **0.00** |
| | | | |
| CONS | **0.41** | **3.26*** | **0.00** |



| | | |
|---|---|---|
| Chi-Sq. P value | | **381.79*** **0.00** |
| Heteroskedastic (LR Test) | LR $Chi^2$ P value | **24.58*** **0.01** |
| Autocorrelation (Wooldridge Test) | F statistics P value | **8.734*** **0.01** |
| * Significant at 1% ** Significant at 5% | | |

**Table 3: GLS results of ratio of total loans to total deposits**

| | Coefficient | Z_value | P value |
|---|---|---|---|
| *Independent variables* | | | |
| BLS | **-14.89** | **-3.17*** | **0.00** |
| INE_BZ | 6.61 | 0.73 | 0.47 |
| BZ | 1.27 | 1.52 | 0.13 |
| DOWN | 61.37 | 1.57 | 0.12 |
| IOWN | **-35.53** | **-3.68*** | **0.00** |
| BOWN | **-19.24** | **-2.65*** | **0.01** |
| *Control variables* | | | |
| LNTA | -4.99 | -1.57 | 0.12 |
| TD_TE | **0.03** | **3.76*** | **0.00** |
| GDP RATE | **-56.83** | **-4.41*** | **0.00** |
| DUM_CRISIS | 4.12 | 1.89 | 0.06 |
| CONS | **154.74** | **5.08*** | **0.00** |
| F statistics P value | | | **81.77*** **0.00** |
| Heteroskedastic (LR Test) | LR $Chi^2$ P value | | **182.66*** **0.00** |
| Autocorrelation (Wooldridge Test) | F statistics P value | | **2445.93*** **0.00** |
| * Significant at 1% ** Significant at 5% | | | |

**Table 4: GLS results of ratio of total loans to total assets**

| | Coefficient | Z Statistics | P value |
|---|---|---|---|
| *Independent variables* | | | |
| BLS | **-7.12** | **-3.57*** | **0.00** |
| INE_BZ | -9.30 | -1.67 | 0.09 |
| BZ | 0.07 | 0.19 | 0.85 |
| DOWN | **-73.04** | **-1.94*** | **0.05** |
| IOWN | **-15.55** | **-3.27*** | **0.00** |
| BOWN | -2.54 | -0.59 | 0.55 |
| *Control variables* | | | |
| LNTA | 1.39 | 1.11 | 0.27 |
| TD_TE | 0.00 | -0.89 | 0.37 |
| GDP RATE | **-31.49** | **-3.56*** | **0.00** |
| DUM_CRISIS | -1.28 | -0.88 | 0.38 |
| CONS | **66.63** | **6.01*** | **0.00** |
| Chi-Sq. P value | | | **52.28*** **0.00** |
| Heteroskedastic (LR Test) | LR $Chi^2$ P value | | **91.94*** **0.00** |

| | | |
|---|---|---|
| Autocorrelation (Wooldridge Test) | F statistics<br>P value | 41.431*<br>0.00 |
| * Significant at 1%<br>** Significant at 5% | | |

*Ratios of Total Assets to Total Liabilities as a Proxy of Liquidity Risk*

- Table 4 shows the GLS results for TA_TL. The coefficient values of BLS, IOWN and DOWN are in line with hypothesis where the first two variables have 1 percent significant level and the last one has 5 percent significant level. Moreover, the findings of INE_BZ, BZ and BOWN are also in line with hypothesis although the coefficient values are not significant. Therefore, the findings support that separate BLS (at 1 percent significant level) and higher IOWN (1 percent significant level) and higher DOWN (at 5 percent significant level) have lower risk when TL_TA is a proxy for liquidity risk.

## Summary Results

As discussed earlier, the risk is measured by three proxies, namely, STD, TL_TD and TA_TL. The summary results are summarized in Table 5 and will be explained in the following paragraphs.

The results of BLS show that separate BLS have lower risk for TL_TD (at 1% Sig. level) and the results still consistent when risk is measured by TL_TA (at 1% Sig. level). However, the STD is used as a proxy; the finding is not according to expectation insignificantly. Therefore, it could be generally concluded that banks with separate BLS seems to have lower risk.

In the case of INE_BZ, it is in line with hypothesis for STD (at 1% Sig. level) and TL_TA (at 1% Sig. level). However, insignificantly, the finding is not according to what has been hypothesized when TL_TD is used as a proxy. Therefore, it could be generally concluded that higher INE_BZ seems to have lower risk.

For BZ, the results are in line with hypothesis for TL_TD and TL_TA but not for STD and all the results are not significant. Therefore, it could be generally concluded that smaller BZ seems to have lower risk.

For DOWN, it is in line with hypothesis for TLTA (at five-percent significant level) but it is not the same results for other proxies insignificantly. Therefore, it could be generally concluded that lower DOWN seems to have lower risk.



For IOWN, the finding is significantly in line with hypothesis at one percent significant level for both TL_TD and TL_TA. However, it is not according to the theoretical expectation insignificantly. Therefore, it could be generally concluded that higher IOWN seems to have lower risk.

For BOWN, it is in line with hypothesis for TL_TD (at 1% Sig. level), STD and TL_TA. Therefore, it could be generally concluded that higher BOWN seems to have lower risk.

**Table 5: Summary results for risk**

| Independent variables | | TL_TD | STD | TL_TA |
|---|---|---|---|---|
| BLS | In line with hypothesis | √ | X | √ |
| | Significant level | 1% | - | 1% |
| INE_BZ | In line with hypothesis | X | √ | √ |
| | Significant level | - | 1% | - |
| BZ | In line with hypothesis | √ | X | √ |
| | Significant level | - | - | - |
| DOWN | In line with hypothesis | X | X | √ |
| | Significant level | - | - | 5% |
| IOWN | In line with hypothesis | √ | X | √ |
| | Significant level | 1% | - | 1% |
| BOWN | In line with hypothesis | √ | √ | √ |
| | Significant level | 1% | - | - |

Therefore, it might be generally concluded that all the findings are in line with the theoretical expectation except for director ownership. It might be due to the following possible reasons. First, based on the results from descriptive statistics, 2.22% of ownership belongs to director. Thus, director ownership is insignificant to influence the board decision making process. Secondly, they might not have incentive to lower the risk of the firms since their investments might be diversified and they might prefer to get higher return at the expense of creditors. Due to that, managers might prefer to invest in the risky projects once the managers become the owners (Coles et al., 2001; Gursoy & Aydogan, 2002). Finally, although their ownership interest is there, they might try to maximize their private benefits, rather than firm value since ownership can influences the portfolio choice (Gorton and Rosen, 1994). Therefore, future research focuses on the impact of corporate governance variables on the risk management process since this paper focuses on the end product of the governance, i.e. risk.

## NOTES

1. The purpose of this program is to consolidate and rationalize the industry, and to promote the merger of small and medium-size banks to form larger and financially stronger institutions (Bank Negara Malaysia Annual Report, 1998).

2. The purpose of Pengurusan Danaharta Nasional Berhand is to purchase non-performing loans from the banks and manage these non-performing loans in order to maximize their recovery value (Bank Negara Malaysia Annual Report, 1998).

3. The purpose of Donamodal is established to inject capital into viable banking institutions (Bank Negara Malaysia Annual Report, 1998).

4. The purpose of Corporate Debt Restructuring Committee is to (a) provide the platform for both the borrowers and the creditors to work out feasible debt restructuring schemes without having to resort to legal proceedings, (b) assist the finance companies in diversifying their funding sources, and (c) create additional liquidity to fund their lending activities (Bank Negara Malaysia Annual Report, 1998).

## REFERENCES


Alexander, K. (2006), "Corporate Governance and Banks: The Role of Regulation in Reducing the Principal-Agent Problem," *Journal of Banking Regulation*, 2 (1/2): 17-40.

Ashbaugh-Skaife, Collins and LaFond, (2006). "The Effect of Corporate Governance on Firms' Credits Rating," *Journal of Accounting and Economics*, 42: 203-243.

Bank Negara Malaysia. (1997). "Bank Negara Malaysia Annual Report," available at: http://secure.bnm.gov.my/ (accessed 20 April 2007)

Bank Negara Malaysia. (2008), "Risk Assessment of the Financial System", available at: http://www.bnm.gov.my/files/publication/fsps/en/2008/cp01_002_whitebox.pdf (accessed 22 May 2010).

Basel committee on banking supervision (2005), "Enhancing corporate governance for banking organizations," available at: http://www.bis.org /publ/ bcbs117.pdf (accessed 16 May 2008).

Beatty, Randolph, P., Zajac and Edward, J. (1994), "Managerial incentives, monitoring, and risk bearing: A study of executive compensation, ownership, and board structure in initial public offering," *Administrative Science Quarterly*, 39: 2.

Bhojraj and Sengupta, (2003), "Effect of Corporate Governance on Bond Ratings and Yields: The Role of Institutional Investors and Outside Directors, *Journal of Business*, 76: 3.

Br and Chidambaran. (2008), "Board Monitoring, Firm Risk, and External Regulation," *Journal of Regulatory Economics*, 33 (1): 87-116.





Brickley, J.A., Coles, J.L. and Jarrell, G. (1997), "Leadership Structure: Separating the CEO and Chairman of the Board," *Journal of Corporate Finance*, 3: 189-220.

Cebenoyan, S. and Strahan, P.E. (2001), "Risk management, capital structure and lending at banks," available at: http://fic.wharton.upenn.edu/fic/papers/02/0209.pdf (accessed 16 May 2008).

Cheung, S.Y.L. and Chan, B.Y. (2004), "Corporate Governance in Asia," *Asia-Pacific Development Journal*, 11 (2): 1-31.

Choe, H. and Lee, B.S. (2003), "Korean Bank Governance Reform after the Asian Financial Crisis," *Pacific-Basin Finance Journal*, 11: 483-508.

Coles, J.W., McWilliams, V.B. and Sen, N. (2001), "An Examination of the Relationship of Governance Mechanisms to Performance," *Journal of Management*, 27: 23-50.

Conyon, M.J. and Schwalbach, J. (2000). "Executive Compensation: Evidence from the UK and Germany," *Long Range Planning*, 33: 504-526.

Das and Ghosh, (2007). "Determinants of Credit Risk in India State Owned Banks: An Empirical Investigation," *Economic Issues*, 12 (part 2).

Derwall and Verwijmeren, (2007). "Corporate Governance and the Cost of Equity Capital: Evidence from GMI's Governance Rating," *ECCE Research Note*.

Fama, E.F. and Jensen, M. (1983). "Separation of Ownership and Control," *Journal of Law and Economics*, 26: 301-325.

Finkelstein, S. and D'aveni, R.A. (1994). "CEO Duality as a Double-Edged Sword: How Boards of Directors Balance Entrenchment Avoidance and Unity of Command," *Academy of Management Journal*, 37 (5): 1079-1108.

Firth, M., Fung, P.M.Y. and Rui, O.M. (2002). "Simultaneous Relationships among Ownership, Corporate Governance and Firm Performance", available at: http://www.baf.cuhk. edu.hk/acy /staff/orui/AUTHORS.pdf (accessed 20 May 2010).

Florackis, C. and Ozkan, A. (2004), "Agency Costs and Corporate Governance Mechanisms: Evidence for UK firms," available at: http://www.soc.uoc.gr/asset/accepted_papers/paper87.pdf (accessed 16 May 2008).

Garcia-Marco, T. and Robles-Fernandex, M.D. (2008). "Risk-Taking Behavior and Ownership in the Banking Industry: The Spanish Evidence," *Journal of Economics and Business*, 60: 332-354.

Greuning and Bratanovic. (2003). "Analyzing and Managing Banking Risk: A Framework for Assessing Corporate Governance and Financial Risk," *World Bank Publications*, Washington, D.C.

Gorton, G. and Rosen, R. (1994), "Corporate Control, Portfolio Choice and the Decline of Banking," available at: http://fic.wharton.upenn.edu/fic/papers/ 95/9509.pdf (accessed 29 April 2008).

Gujarati, D.N. (2003), *Basic Econometrics* (4th edn.), McGraw-Hill, Singapore.

Gup and Kolari. (2005), *Commercial Banking: The Management of Risk*, Susan Elble, United States.

Gursoy, G. and Aydogan, K. (2002). "Equity Ownership Structure, Risk Taking, and Performance. Emerging Markets Finance and Trade," 38 (6): 6-25.

How, Abdul Karim and Verhoven, (2005). "Islamic Financing and Bank Risks: The Case of Malaysia." *Thunderbire International Business Review*, 47 (1): 75-94.

Huther, J. (1997). "An Empirical Test of the Effect of Board Size on Firm Efficiency," *Economics Letter*, 54: 259-264.

Jensen, M.C. and Meckling, W.H. (1976). "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics*, 3 (4): 305-360.

Jensen, M.C. (1993). "Presidential Address: The Modern Industrial Evolution, Exit and the Failure of Internal Control System," *Journal of Finance*, 48: 831-880.

Jensen, M.C. and Ruback, R. (1983). "The Market for Corporate Control: The Scientific Evidence," *Journal of Financial Economics*, 11: 5-50.

Judge, W.Q., Naoumova, I. and Koutzevol, N. (2003). "Corporate Governance and Firm Performance in Russia: An Empirical Study." *Journal of World Business*, 38: 385-396.

Kang, D.L. and Sorensen, A.B. (1999). "Ownership Organization and Firm Performance," *Annual Review*, 25: 121-44.

Kiel, G.C. and Nicholson, G.J. (2003). "Board Composition and Corporate Performance: How an Australian Experience Informs Contrasting Theories of Corporate Governance," *Corporate Governance: An International Review*, 11: 189-205.

Kim, B. and Lee, I. (2003). "Agency Problems and Performance of Korean Companies during the Asian Financial Crisis: Chaebol vs. Non-chaebol Firms," *Pacific-Basin Finance Journal*, 11: 327-348.

Kim, K.A. and Nofsinger, J.R. (2004). *Corporate Governance*, Pearson Prentice Hall: New Jersey.

Langnan, C., Steven, L., and Weibin, L. (2007). "Corporate Governance and Corporate Performance: Some Evidence from Newly Listed Firms on Chinese Stock Markets," *International Journal of Accounting, Auditing and Performance Evaluation*, 4 (2): 183-197.

Le, S.A., Walters, B. and Kroll, M. (2006). "The Moderating Effects of External Monitors on the Relationship between R and D Spending and Firm Performance," *Journal of Business Research*, 59: 278-287.

Leng, A.C.A. (2004). The Impact of Corporate Governance Practices on Firms' Financial Performance: Evidence from Malaysian Companies," *ASEAN Economic Bulletin*, 21 (3): 308-318.

Maher, M. and Andersson, T. (1999), "Corporate governance: Effects on firm performance and economic growth," available at: http://www.oecd.org/dataoecd/10/34/2090569.pdf (accessed 16 May 2008).



McColgan, P. (2001), "Agency Theory and Corporate Governance: A Review of the Literature from a UK Perspective," available at: http://accfinweb.account.strath.ac.uk/wps/journal.pdf. (accessed 16 May 2008).

Pitts, M., Sadler, G.V. and Conyon, M.J. (2003), "Corporate Boards and Incentives: Empirical Evidence from the UK in 1935," *Corporate Ownership and Control*, 1 (1): 129-138.

Ramzi Benkraiem, (2008), "The Influence of Institutional Investors on Opportunistic Earnings Management," *International Journal of Accounting, Auditing and Performance Evaluation*, 5 (1): 89-106.

Salleh, H.H. and Mallin, C. (2002), "Corporate Governance in Bahrain," *Corporate Governance* 10 (3): 197-210.

Sanders, G. (1999), "Incentive Structue of CEO Stock Option Pay and Stock Ownership: The Moderating Effects for Firm Risk," *Managerial Finance*, 25 (10): 61-75.

Seifert, B., Gonenc, H. and Wright, J. (2005), "The International Evidence on Performance and Equity Ownership by Insiders, Blockholders, and Institutions," *Journal of Multinational Financial Management*, 15: 171-191.

Short, H., Keasey, K., Wright, M. and Hull, A. (1999), "Corporate Governance: From Accountability to Enterprise," *Accounting and Business Research*, 29 (4): 337-352.

Solomon, J. and Solomon, A. (2004), *Corporate Governance and Accountability*, John Wiley and Sons Ltd, West Sussex, England.

Tze, W.K.L. (2003), "Corporate Governance in Malaysia and the Recent Reform," available at: http://www.maicsa.org.my/technical_essay.htm (accessed 20 December 2004).

Williams, D.R., Duncan, W.J., Ginter, P.M. and Shewchuk, R.M. (2006), "Do governance, equity characteristics, and venture capital involvement affect long-term wealth creation in US health care and biotechnology IPOs?" *Journal of Health Care Finance*, 33 (1): 54-71.

Weir, C. (1997), "Corporate Governance, Performance and Take-Overs: An Empirical Analysis of UK merges," *Applied Economics*, 29: 1465-1475.

Williams, S.C., Watt, A., Schmaltz, S.P., Koss, R.G. and Loeb, J.M. (2006). "Assessing the Reliability of Standardized Performance Indicators," *International Journal for Quality in Health Care*, 18 (3): 246-255.

Yoshikawa, T. and Phan, P.H. (2003). "The Performance Implications of Ownership-Driven Governance Reform," *European Management Journal*, 21 (6): 698-706.

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978-1-935494-18-8