

# Ownership Structure and Financial Distress

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**Abstract**—Caught in financial distress has never been an objective of any company. Nevertheless, many companies collapsed due to controllable and uncontrollable factors. There is inconclusive evidence as to whether changes in ownership attributes improve firms' performance and therefore could reduce the likelihood of firms going through financial distress. This study attempts to understand whether type of ownership have significant relationship with companies that experienced financial distress. This study is useful to directors who can evaluate the existence of these factors in their companies and to authorities who can use this study to measure the effectiveness of government linked institutional investors in preventing distress.

**Index Terms**—board structure, financial distress, ownership, government-linked companies

## I. INTRODUCTION

Economic liberalization, opening up of foreign markets and economic uncertainties are creating a riskier and stiffer competitive environment. Companies that cannot compete given the current condition will collapse. It is very alarming that the number of companies that is trapped in this situation is increasing. It is well documented that the reasons behind the collapse of a company are due to financial reasons, i.e., shortage of cash, high leverage, low profitability and small size to name a few factors.

The board of directors is central to corporate governance and they are appointed by shareholders to oversee the management of the company on behalf of the shareholders. The board generally consists of independent and non-independent directors, where by combining their expertise, experience and judgment, it is hoped that the company will be run smoothly and be able to have good performance. However, the question of board size and fraction of independent and non-independent directors are still being debatable. Reference [1] argue that a distress company has a lower proportion of outsiders on their board and reference [2] show that bankrupt firms were characterized by greater number of independent directors. Hence it is important to study whether in Malaysian context, board size and percentage of independent and non-independent directors do matter in distressed company.

Many companies in Malaysia are substantially owned by families where members of these families also serve as directors, especially executive directors. Companies that are owned by family normally have better monitoring system, which leads to lower agency problems [3]. However, family ownership might lead to unclear or even undefined roles and responsibilities between family shareholders and family managers [4]. Hence, it is interesting to study whether companies owned by family lead to financial distress. Since family members also served as executive directors, it is important to understand the effects of director ownership, executive director ownership and independent director ownership on the likelihood of distress.

Government ownership through government-linked investment companies (GLICs)<sup>1</sup> is another interesting issue to study. It has been commonly known that government objectives are different from private sector objectives, where government pays a special attention to political goals such as low output prices, employment and economic objectives [5]. Government-owned companies may respond to signals from the government to enhance national welfare or other non-profit considerations, which may not lead to a goal of value maximization [6]. On the other hand, government intervention might also serves as a monitoring device that leads to better company performance [6]. Therefore, it is interesting to examine the relationship between government ownership and financial distress.

Domestic private institutional investors (DPIIs) might be able to play a more efficient role in monitoring managers since they have expertise to monitor the firm at lower costs compared to retail investors [7]. Hence, companies with DPIIs participation might have a lower probability of experiencing distress. Therefore, it is interesting to study whether DPIIs play a role in distressed companies.

Similar to DPIIs, foreign ownership is another reason that could influence the likelihood of distress. Companies with foreign ownership normally are strong companies with strong monitoring of managers [8]. Foreign companies may have easy access to superior technical, managerial talents, and financial resources [9], and are able to obtain various investment benefits from the government

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Manuscript received 24 June 2013; revised August 30, 2013.

This work was supported by the Fundamental Research Grant Scheme under Grant 11868 (Ministry of Higher Education, Malaysia).

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<sup>1</sup> This study looks at seven GLICs namely PNB, Employees Provident Funds (EPF), Armed Forces Funds (LTAT), Pilgrim Fund (LTH), Khazanah Nasional Berhad (KNB), Ministry of Finance Incorporated (MFI), and Kumpulan Wang Amanah Pencen (KWAP).

[10]. However, foreign companies might face difficulties to monitor managers as they are located in other countries [10] and those companies are run by professional managers who do not own any stake in the firms. Thus it is important to study the effect of foreign ownership on distress.

## II. LITERATURE REVIEW

Empirical evidence concerning the influence of director or managerial ownership and performance is inconclusive. Agency theory predicts that firms with high managerial ownership would have better financial performance [11]. Incentive alignment hypothesis expects that high managerial ownership could lead to better performance even during distress as managers have better control over the firms' resources and could facilitate monitoring during financial downturns. Reference [12] finds consistent evidence with this conjecture. On the other hand, entrenchment hypothesis predicts that director cum owner of a firm would use his position at the expense of shareholders wealth through neglecting effective monitoring, consuming excessive perks, and investing in negative net present value projects. However, as directors hold substantial stakes in their firms, they are virtually irreplaceable. Reference [13] finds that distressed firms have high level of insider ownership and experienced lower performance as measured by Tobin's Q. In this study, three measures of director ownership are used. They are ownerships of all directors, executive directors and independent directors. Based on the previous discussion, it is argued that directors who own substantial amount of shares in a company will make sure that the company thrives as their wealth are tied up to the performance of the company.

The relationship between family ownership and firm performance has been studied by many authors. As proposed by alignment of interest hypothesis, most of them found that family ownership is positively related to firm's performance when performance is measured using return on assets and market to book ratio [14] and when performance is measured using return on equity [15]. However, there is inconclusive evidence regarding the relationship of family ownership and performance during financial difficulty. Economic theory suggests that monitoring by family owners would be effective and therefore family would increase their ownership during distress stages as they would be able to closely monitor their fiduciary duties.

Previous studies provide mixed evidence on the influence of institutional investors on firm's performance during financial difficulties. Reference [16] finds that market reacts negatively on distress resolution for firms with government ownership and state-owned enterprise in China as compared to non-state owned enterprise while reference [17] finds that financial institutions in Korea, including commercial banks do not play any significant role in monitoring firms before the Asian financial crisis. However, reference [18] finds that institutional investors are better able to manage distress risks than their inexperienced counterparts.

Reference [19] finds that when companies are controlled by government-linked investment companies, the performance of the companies is generally good, and hence the companies would not suffer from financial distress. However, references [20], [21] find that government-linked investment companies are negatively related to the performance of the firm.

In this study, institutional investors are classified into two groups: government-linked investment companies (GLICs) and domestic private institutional investors (DPIIs). Since the objective of GLICs is to hold the investment for a longer period, it is expected that GLICs would monitor the firms that they controlled. Thus, the probability of distress is lower for firms controlled by GLIC. As for DPII, such as unit trust fund and insurance fund, they might not be able to monitor the firm effectively and hence they would invest only in firms that have good financial standing. Therefore, it is expected that DPII would invest in non-distressed firms and thus the probability of distress is lower for firms with DPII participation.

To mitigate agency problems between controlling and minority shareholder, existence of foreign investors could be a good corporate governance mechanism as it reduces opportunistic behavior of the controlling shareholders. Reference [22] finds that the existence of foreign owners brings positive impact on performance. It is demonstrated that the higher is the percentage of ownership owned by foreigners, the better would be the performance of the company, hence the lower the likelihood that the company would become bankrupt. On the contrary, reference [23] finds no support that the existence of foreign ownership affects performance of firms in Egypt, Jordan, Tunisia and Oman. Based on the literature review, it is expected that foreign investors would be likely to invest in good performance companies and would bail out their position in case of financial difficulties.

Financial leverage will lead to financial distress as a firm relies on debt more than equity. This is consistent with the results of the studies [24] where debt level has negative and significant impact on performance where firms with higher debt would have a higher probability of default.

## III. METHODOLOGY

The sample includes all firms listed on the Main Market of Bursa Malaysia. The distressed companies are identified based on the criterion in Practice Notes 17 (PN17) and that is defined as the shareholders equity is less than 25% of issued and paid-up capital of a firm. The sample period of this study is from 2004 to 2009. A firm must meet the distress criterion during this period to be identified as a distressed firm. Next, related information about the firm is collected. The distressed firm is then matched with a non-distressed firm on size, as measured by total assets, and industrial classification, as categorized by Bursa Malaysia. Matching is done at the end of 2004.

To investigate whether ownership characteristics influence the occurrence of distress, a logistic regression model of the following form is estimated:

$$Y_{it} = \alpha_0 + \beta_1 \text{BOARDOSHIP}_{it} + \beta_2 \text{INEDOSHIP}_{it} + \beta_3 \text{EXECDIROSHIP}_{it} + \beta_4 \text{FAMILYOSHIP}_{it} + \beta_5 \text{GLICOSHIP}_{it} + \beta_6 \text{DPIIOSHIP}_{it} + \beta_7 \text{FOREIGNOSHIP}_{it} + \beta_8 \text{LEVERAGE}_{it} + \varepsilon_{it}$$

where *i* refers to firm, *t* refers to time, and Y is a binary variable that equals to 1 for distress, zero otherwise, BOARDOSHIP is proportion of shares held by directors, INEDOSHIP is proportion of shares held by independent directors, EXECDIROSHIP is proportion of shares held by executive directors, FAMILYOSHIP is proportion of shares held by a family in firm, GLICOSHIP is proportion of shares held by government-linked institutional investors, DPIIOSHIP is proportion of shares held by other institutional investors, FOREIGNOSHIP is proportion of shares held by foreigners and LEVERAGE is total debt to total assets.

#### IV. RESULTS

Table I summarizes statistics of relevant variables for the two groups of distressed and matching firms if distress is identified by using a cut-off point of 25%. A break-down of director ownership shows that executive directors (EXECDIROSHIP) held 19.52% in distressed firms while the ownership of executive director (EXECDIROSHIP) of the matching firm is 30.19%. Ownership of independent directors (INEDOSHIP) in distressed firms is 0.21% as compared to 0.27% for matching firms. A further breakdown of ownership based on family (FAMILYOSHIP) shows that families held 30.63% in matching firms while family holdings in distressed firms is 20.16%. It is found that percentage wise, family ownership is similar to executive director ownership. This is not surprising because families would have their representatives serve as executive directors.

Government-linked investment companies (GLICOSHIP) held significantly lower percentage in distressed firms (4.47%) as compared to their holdings in matching firms (5.84%). The holding of non-government-linked investment companies (DPII) is significantly higher for distressed firms (5.55%) as compared to that of matching firms (3.26%) based on difference of two means tests. A possible reason for higher ownership by non-government-linked investment companies is that distressed firms have borrowings from financial institutions and their inability to pay those borrowings might lead to restructuring of the borrowings whereby the financial institutions will be given shares in the distressed companies. As for foreign ownership (FOREIGNOSHIP), it is higher for matching firms while for leverage (LEVERAGE), it is higher for distressed firms. The leverage of distressed firms is more than three times higher compared to that of control firms.

There are three correlations that are greater than 0.5, which might indicate existence of multicollinearity problem. Those correlations are between BOARDOSHIP and EXECDIROSHIP (correlation of 0.833), BOARDOSHIP and FAMILYOSHIP (0.887), and

EXECDIROSHIP and FAMILYOSHIP (0.798). In subsequent regression analyses, these correlations are taken into consideration by dropping some of the highly correlated variables.

TABLE I. SUMMARY STATISTICS AND DIFFERENCES BETWEEN DISTRESSED AND MATCHING FIRMS

Variables	Distressed firms	Matching firms	p-value for difference-in-means test
INEDOSHIP	0.00206	0.00273	0.135
BOARDOSHIP	0.25209	0.35748	0.000
EXECDIROSHIP	0.19517	0.30189	0.000
FAMILYOSHIP	0.20160	0.30631	0.000
GLICOSHIP	0.04467	0.05841	0.031
DPIIOSHIP	0.05551	0.03256	0.000
FOREIGNOSHIP	0.02581	0.02985	0.239
LEVERAGE	0.71118	0.20865	0.000

Table II summarizes the results of logit analysis. Model 1 summarizes the results of using all variables. Model 1 shows that EXERDIROSHIP has negative relationship with the likelihood of distress while BOARDOSHIP and FAMILYOSHIP have insignificant relationship. The insignificant values for BOARDOSHIP and FAMILYOSHIP are not as expected. These unexpected results could be driven by high positive correlation between these three ownership variables. When the three variables are estimated independently, all three variables are found to be highly significant with negative coefficients as expected, as shown in Model 2 to Model 4. Since wealth of a family with a significant stake in a company is linked to the performance of the company, the family has a greater incentive to make sure that the company performs well. In this case family members would serve on the board of directors and take on executive positions.

In all models, INEDOSHIP is not significant. A possible explanation of this result is that independent directors have very low ownership stakes in a company. GLICOSHIP is negative but not significant at 5%. DPIIOSHIP is positively significant in explaining the likelihood of distress. It is expected that the higher is the holdings of private institutional investors the lower is the likelihood of distress as they could serve as monitoring agent. In addition, these private institutional investors analyze each company thoroughly before adding the company to their portfolio as incorrect valuation would adversely affect the performance of the institutional investors. However, the result shows that private institutional investors affect the likelihood of distress positively and significantly at 1%. This contradictory result might be due to the fact that as distressed firms cannot pay off their debt, they have to restructure their debts by offering shares to the institutional investors. Further analysis shows that the highest level of DPII is 83.81% for distressed firms while the highest level for control firms is 34.23%. Furthermore, there are twenty observations where DPII for distressed firms are higher than 34.23%. FOREIGNOSHIP has the expected negative effect on distress as predicted. Finally, companies with higher leverage have higher likelihood of experiencing distress.

TABLE II. LOGIT REGRESSION RESULTS

Variables	Model 1	Model 2	Model 3	Model 4
BOARDOSHIP	0.060 (0.936)		-2.234 (0.000)	
INEDOSHIP	-8.125 (0.282)	-8.015 (0.290)	-9.727 (0.207)	-10.716 (0.158)
EXECDIROSHIP	-2.153 (0.000)	-2.593 (0.000)		
FAMILYOSHIP	-0.633 (0.392)			-2.301 (0.000)
GLICOSHIP	-1.086 (0.095)	-1.041 (0.107)	-1.165 (0.072)	-0.974 (0.122)
DPIIOSHIP	3.352 (0.000)	3.385 (0.000)	3.149 (0.000)	3.272 (0.000)
FOREIGNOSHIP	-2.966 (0.019)	-2.975 (0.019)	-2.568 (0.036)	-2.485 (0.040)
LEVERAGE	4.232 (0.000)	4.264 (0.000)	4.128 (0.000)	4.137 (0.000)
CONSTANT	-0.629 (0.000)	-0.678 (0.000)	-0.591 (0.001)	-0.699 (0.000)
P-value)	363.004 (0.000)	361.736 (0.000)	346.922 (0.000)	347.693 (0.000)
Pseudo-R <sup>2</sup>	0.224	0.223	0.214	0.215
Percentage correctly predicted	73.5%	72.9%	71.9%	73.1%
Percentage distress correctly predicted	70.2%	69.9%	69.3%	70.1%
Percentage match correctly predicted	76.9%	75.9%	74.7%	76.0%

## V. CONCLUSION

The study is motivated in part by the unique environment of Malaysian corporate scenario where family and government ownership are prevalent. Firms control by families would have family members serving on board of directors either as executive or non-independent non-executive directors. Given this environment it is important to examine the influence of ownership and board structures on financial distress.

Results of logistic regression models show that ownership by executive directors, family, or all directors has the expected negative relationship with the likelihood of distress. Ownership by GLICs and independent directors are not significant in explaining distress while ownership by DPIIs is positively significant at 1%. Foreign ownership on the hand reduces the likelihood of distress.

Since empirical research on the effects of corporate governance and financial distress is still limited in Malaysia, it could be explored further. One suggestion is to look at the effects of directors' education and qualification on distress. The role of audit committee could also be investigated as audit committee could foresee the financial condition of the company.

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