

DOES PYRAMIDING HAVE AN IMPACT ON FIRM'S CAPITAL STRUCTURE DECISION AMONG MALAYSIAN DISTRESS COMPANIES?*

*Fauzias Mat Nor** and Bany Ariffin****

Abstract

It is documented by La Porta, Lopez and Shleifer (1999) that ultimate owners around the world usually control an array of affiliated companies through hierarchical intermediary corporations forming pyramidal holdings. A direct result of this pyramidal ownership structure is divergence of cash flow rights from control rights in the hand of the largest shareholders (Claessens, Djankov and Lang 2000). This paper investigates the impact of this separation of cash flow rights from control rights resulting from these pyramidal forms of ownership structure on firm's capital structure. In particular, our objective is to examine whether such separation affects the financing decisions among Malaysian listed distressed companies. Even though it is not conclusive our findings somewhat lend support to the leverage-increasing non-dilution entrenchment effect on corporate leverage, whereby the separation of cash flow rights and control rights leads to the increase of leverage among the distressed companies. Consequently, excessive use of leverage in order to protect ultimate owner's dominance in these companies then leads to disastrous financial valuation.

Keywords: control rights, ownership structure, capital structure, Malaysian companies

* This study is part an ongoing IRPA research program (vote no = 07-02-02-0039-EA290) led by Prof. Dr. Fauzias Mat Nor of UKM.

** School of Business Management, Faculty of Economic and Business, Universiti Kebangsaan Malaysia, Bangi, Selangor 43600 Malaysia
fauzias@pkriscc.ck.ukm.my

*** Department of Accounting and Finance, Faculty of Economic and Management, University Putra Malaysia, Serdang, Selangor 43300 Malaysia
Bany@Putra.upm.edu.my

Introduction

It is documented by La Porta, Lopez and Shleifer (1999) that ultimate owners, around the world usually control an array of affiliated companies through hierarchical intermediary corporations forming pyramidal holdings. In this study, following the definition of Attig, Fischer and Gadhoum (2004) a pyramidal holding is an entity (i.e. group of companies) whose ownership structure displays a top-down chain of control starting with an ultimate owner (at the apex) with successive lower layers of firms.

A direct result of this pyramidal ownership structure is divergence of cash flow rights from control rights in the hand of the largest shareholders (Claessens, Djankov and Lang, 2000). This paper

investigates the impact of this separation of cash flow rights from control rights resulting from these pyramidal forms of ownership structure on firm's capital structure. In particular, our objective is to examine whether such separation affects the financing decisions among Malaysian listed distress companies.¹³⁴ It is generally known for a fact, that for the distressed companies, one of the major reasons re-

¹³⁴ Listed distress firms are those institutions that have failed to comply with the obligations set under Malaysian practice note that causes them to be de-listed/ suspended from trading. Among the commonly violated provision on this practice note is - deficit in the adjusted shareholder' equity of the listed issuer on a consolidated basis. See Fauzias and Ruzita (2004) for more examples of practice note violations.

sulting in their financially distressed performance has to do with mismanagement of their financing (Norhuda 2002). This study would try to investigate if such mismanagement of the financing policy resulted due to the separation of cash flow rights from ownership rights. In addition we would also try to establish a relationship between the financing policy of the distressed companies and their financially distressed valuation.

The findings of Claessens et. al (1999, 2002b) motivate our study. They analyzed a sample of East Asian firms and have found that most of the East Asian firms display a high degree of separation of cash flow rights from control rights in the hand of largest shareholders as a result of the pyramidal structure of ownership. Consequently, this separation of cash flow and control rights exerts a direct negative impact on Asian firms corporation valuation. However both these studies have failed empirically to identify, in which channel the divergence of cash flow rights from control rights affects firm's valuation. We extend the study of separation of cash flow rights from control rights by proposing a model that provides an answer to the missing link – capital structure.

Damodaran (1999) asserts that the value of a firm is defined as the present value of its expected cash flows discounted at a rate that reflected both the risk of the project of the firm and the financing mix used to finance them. Since the financing mix pertains to the firm capital structure, hence we can say capital structure is closely associated with the firm value. Hence we propose that the separation of cash flow rights from control rights will first influence firm's capital structure and then affect firm's valuation.

The theoretical arguments and findings by Du and Dai (2004) provide some justification why there could exist a relationship between the separation of cash flow rights and control rights with firm's financing decision. Their argument is known as the ultimate owner's *non-dilution entrenchment effect* hypothesis. Under this argument the ultimate controlling shareholders would simply raise firm leverage in order to prevent the dilution of their shareholding dominance in firms located down in the chain of business group they control. The authors believe that such motive (to protect one's dominance) is particularly strong in the case of the separation of cash flow rights and control rights because it provides an opportunity for the ultimate owners toward risk taking.

Their findings provide support for the non-dilution entrenchment hypothesis. They discovered for the period prior to the Asian crisis the capital structure of firms in East Asian countries (including Malaysia) are positively related with the separation of cash flow rights from control rights among the ultimate owners. Hence, the greater the separation of cash flow rights and control rights the higher the

probability that the ultimate owners might increase leverage for reason of protecting their dominance in related firms.

Our findings would provide several implications. Firstly, if our findings prove to be significant, this study would provide a clear picture as to how the separation of cash flow rights from control rights as a result of the pyramiding may affect the firm performance and valuation. Secondly, our study utilizes samples data after the Asian financial crisis unlike some of the prior studies that investigated the impact of separation of cash flow rights and control rights in many aspects of firm's policy. Again assuming there is a significant relationship between firm leverage and the separation of cash flow rights and control rights, this only shows that firms in Asian countries particularly Malaysia have not learned their lessons from the recent crisis. Ultimately this only proves that Malaysian firms have failed to adopt more effective corporate governance with respect to large stockholder despite strong recommendation to do so (Shleifer and Vishny 1997). Shleifer and Vishny (1997) assert that, because of the existence of pyramiding ownership, a new policy has to be introduced in order to protect the rights of the minority shareholders from the wrongdoing of the large stockholders (ultimate owners).

Theories behind the Development of Pyramid Group

Based on Leff's (1976, 1978) market friction theory, Khana and Pelepu (2000) provide an explanation why the pyramidal groups are common in developing market. According to the authors, the institutions and the capital market structure in developing countries are functioning not effectively to accommodate business development in those regions. As a result, pyramidal groups are formed by wealthy family to mitigate the problems that arise from that.

Basically when market and the institutions are poorly functioning, one of the common problems is enforcement of business contract. With poorly functioning market, enforcement of contract can be something that is difficult to observe and infringement of contracts is common. This is especially the case when firms are dealing with unrelated counterpart.

On the other hand, such event is unlikely to happen for the firm that establishes a contract with firms within the same pyramidal group. The probability for such incidences is lower for these firms because the ultimate owners of the pyramid do monitor for any wrong doing of the members firm. This is done to preserve the integrity and harmony within the business group, which then can insure the overall success of the business group. Consequently, as firms from outside the pyramidal group observe these benefits, many would hand over their ownership to a pyramid group (Khana and Pelepu, 2000).

Still using market friction theory, Khanna and Rivkin (2001) argue that the creation of the pyramidal group is due to the fact that pyramidal control firms can bestow other advantages in economies with deeply dysfunctional institutions. For example if the education system in the country is weak, firms in the pyramidal group may provide opportunity of apprenticeship for workers in the same group that requires proper training.

For example, in developing countries, newly recruited employees in the pyramidal group often face problems in getting proper work training because of shortages in the number of local institutions that provide such training.

However, pyramidal grouping provides remedial to such problem. The firms within the same pyramidal group help each other by providing the avenue for these workers who seek such training, thus creating what Khanna argues as "group specific human capital".

The same goes if capital market is expensive to work with (Market friction theory). The pyramidal group is the solution. For instance with regard to providing capital among corporations, Hoshi, Kashyap and Scharfstein (1991) argue that Japanese firms provide capital to their firms in their corporate group that are experiencing financial difficulty. Although Japanese capital market can be claimed to be fully developed, yet there is still restriction in obtaining financial assistance especially in the case for distressed firms. The authors propose that this intercorporate lending enhance economic efficiency by reducing bankruptcy costs.

On the other hand for countries with poorly developed capital market, difficulty in obtaining external financing not just applies to distressed firms but all firms in general. Clearly, the ability of the pyramidal group to provide intercorporate lending as the second financing alternative is a solution to this problem (Morck and Yeung, 2004).

Wolfenzon (2004) firm characteristics theory may also help explaining the development of the pyramidal group.

Firm with characteristics such as high investment requirement, low profitability, generates lower security benefits to external investors. In other words, these firms become less attractive to the investors as their return is low and their risk level is high. For these firms an association with a pyramidal group may provide the solution to the problem they face. Once associated with the group, the ultimate controller of the pyramidal group could easily redirect the investment flow to these firms from any one of its firms under his control. As more and more firms seek the same path in solving their problem, the pyramidal group's size increases.

Morck and Yeung (2004) argue that, by magnifying the wealth of an individual or family into control over assets, worth vastly more, pyramid magnifies political influence in the same proportion. The

wealthy individual or family can use this amplified political influence to alter the economy's institutional framework to favor themselves or their firm, to capture transfer payments and so on. This advantage furthermore might be considerable especially in economics with readily corruptible politician and officials.

How Pyramiding Creates Separation of Cash Flow Rights and Control Rights

To understand how firms formed in pyramid group experience the separation of cash flow rights and control rights, which then may lead to the value destruction as mentioned earlier, we must first understand the nature of the pyramid group itself. As noted by Wolfenzon (2004), pyramid structure is defined as owning a majority of the stock of one corporation which in turn holds a majority of the stock at another. Take for example Halim bin Saad a Malaysian entrepreneur who owns 28.3% of Renong Berhad (see figure 1), which at one time was among the biggest conglomerate in the country. The 28.3% stakes make Halim the major stockholder and ultimate owner of Renong Berhad.

At the same time, the Renong owns 32.5% of shares in United Engineers Malaysia (UEM). Just like previously, this makes Renong the controlling stockholder and ultimate owner of UEM. The fact that Halim controls Renong Berhad and Renong Berhad on the hand, is a major shareholder of UEM, this provides the rights for Halim to control UEM also. Figure 1 below provides an example how this group of corporations is formed into a pyramid structure.

Cash flow rights (CFR) represent owner's actual ownership in a company (Claessen et al 2000). Because ownership only arises with investment, cash flow rights (CFR) also proxy for owner's investment in a company (Morck & Yeung 2004).

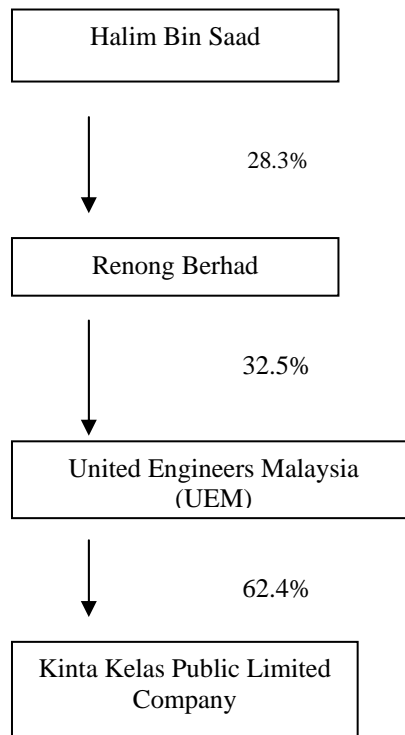
Control rights (CR) on the other hand represent voting rights for the controller (Claessen et al 2000). Logically, owner's voting rights in a company should equal owner's cash flow rights that arise from his actual investment. But due to the pyramid structure as observed in figure 1, these two are no longer equal.

In this pyramid group, Halim has a direct ownership only in Renong. For the rest of the firms, the ownership comes indirectly. For instance the Halim ownership in UEM comes through Renong Berhad, and that is why Renong Berhad owns UEM. For Kinta Kelas, the Halim's ownership arises from his stake in Renong Berhad and UEM.

Let us now measure the actual ownership that Halim has in Kinta Kelas. The actual ownership is proxy by the CFR.:

$$\text{CFR in Kinta Kelas} = 28.3\% \times 32.5\% \times 62.4\% = 0.05739 \sim 5.73\%$$

Figure 1
(Source: Lemons
and Lins 2003)



Halim's CFR or ownership in Kinta Kelas equals to 5.73% only. Since theoretically ownership arises from one's investments, if the amount of ownership in Kinta Kelas is 5.73% that means his investment in Kinta Kelas is also 5.73%. Let us now put some dollar figures into the example. Assume, the value of Kinta Kelas is RM10,000,000 because ownership comes with one's investment (Morck & Yeung 2004, Claessen et al. 2000), Halim's investment in Kinta Kelas is only RM573,000.

Halim's indirect control on Kinta Kelas is proxy by the control rights (CR). The control arises from Halim controlling stake in Renong which then controls UEM, and finally controls Kinta Kelas. Laporta et al (1999) and Claessens et. al (2000) define the weak link in the line of control as the control rights. With this definition, the control rights that Halim has at Kinta Kelas are 28.3%. In practice with these control rights, Halim has the rights to influence (indirectly through Renong and UEM) over devices such as firm policy, appointing BOD and etc in Kinta Kelas. Evidently, because of the pyramid structure, with 5.73% of ownership or RM 573,000 worth of investment Halim has 28.3% of controls in a firm (Kinta Kelas) worth RM10, 000,000. This significant separation of ownership and control clearly deviates from the traditional idea of one share – one vote (Grossman and Hart 1988). Crucially, the incentives to expropriate the minority shareholders may also arise from this separation (Claessens et. al 2000).

As by La Porta et al (1999), Claessens et al (2000), the separation can be observed by looking at

the ratio of CFR to CR. Using the above examples to illustrate:

$$\begin{aligned}
 \text{The separation of CFR\& CR in Kinta Kelas} &= \text{Halim's CFR/ Halim's CR} \\
 &= 5.39\% / 28.3\% \\
 &= 0.19046
 \end{aligned}$$

Hence, the smaller ratio indicates larger separation between CFR and CR. And this has some detrimental effect over the firm valuation. The following example will illustrate such effect.

Example 1, Let's assume Halim at the apex of the pyramid has ordered Kinta Kelas to venture in a highly risky business. Because of some unfortunate events, the business venture failed and it leads to RM1,000,000 decrease in the value of Kinta Kelas. Since UEM has 62.4% of ownership in Kinta Kelas, this RM1,000,000 decrease in value of Kinta Kelas would translate into RM624,000 decrease in the value of UEM, a RM202,800 (32.5% of RM624,000) in the value of Renong, and finally a RM57,392 (28.3% of RM 202,800) decrease in Halim's total wealth. Hence, a RM1,000,000 hit on the value of Kinta Kelas ultimately translates into a fall of RM57,392 in the ultimate owners' wealth at the apex of the pyramid. This is evidently a direct result of the ultimate controller of Kinta Kelas real financial stake of only 5.73% in that firm. With such minimal losses to the ultimate owner, this encourages him to venture into more risky investment utilizing firms located at the lower tiers of the pyramid (Morck & Yeung 2004).

Example 2, Inter-corporate transfer of wealth among pyramid firms to the advantage of the family

firms – Johnson et al. (2000) call *tunneling*. To see this, suppose an asset of Kinta Kelas (see figure 1) rises in value by RM1,000,000. As already noted, only RM57,392 of this gain ultimately accrue to Halim at the pyramid's apex. The rest is diverted to one level after another.

The fact that the Halim controls Kinta Kelas's board, Halim might order Kinta Kelas to sell the assets to a firm in a higher tier of the pyramid at cost. For example, if Kinta Kelas sells the asset (the one that worth RM 1 million) to Renong at a minimal costs, the additional million dollars shows up in Renong instead. Since there is only one layer separating Renong and the ultimate owner (Halim), a RM 1 million increase in Renong value, will cause Halim's wealth to raise by RM283,000 (28.3% of RM1,000,000) instead of only RM 57, 392. This value (RM57,392) is the value accrued to Halim if the assets value had to pass through all of other firms in the group (Kinta Kelas, UEM and Renong). Tunneling is an agency problem where controlling family moves wealth out of firms whose cash flow mainly go to public shareholders and into firms whose cash flows accrue mainly to the controlling shareholder.

Empirical evidences on the minority shareholder expropriation for firms located in a business group that is formed as pyramidal structure has been documented by several researchers. Claessens et al (1999, 2002) find some evidence that firms in business groups organized as pyramid have lower Tobin's Q before the start of the Asian financial crisis. Bae, Kang and Kim (2002) found that Korean Chaebols used merger and acquisition transaction between member firms to expropriate shareholders of the bidder firm and benefit the controlling family. Friedman, Johnson and Mitton (2003) discovered that among the Asian business groups, ultimate owners sometimes "prop up" (inject money) into failing firms to protect the family empire even though such act is financially unjustifiable. Khanna and Rivkin (1999) studied business groups in 15 countries. They found in all 15 countries only three affiliations that add value to member firms. Because the number of success is so small they conclude that pyramiding business group is more value destroying rather than value adding. Finally, Khanna and Palepu (2000) analyzed the performance of business groups in India and found that only members of the largest groups have positive valuation. Member firms of medium-sized Indian groups have valuation below their independent counterpart (not part of any business group). Similarly, since the positive impacts from forming a business group are not comprehensive to all Indian groups and only small number benefited from it, they too concluded that pyramidal business groups are not warranted. Minority shareholders expropriation may also take several other forms. Johnson, La Porta, Lopez and Shleifer (2000) provided some examples: charging high (or low) interest rate loans to member

firms in the pyramid chain, selling of inputs and purchasing of outputs at non-market prices among member firms, leasing of assets and guarantee other companies borrowing without proper justifications are few of the ways companies may tunnel resources across each other at the expense of the minority shareholders and this may directly affect the firm valuation (Bertrand and Mullainathan 2002).

The Influence of Separation of Cash Flow Rights and Control Rights on the Firm's Capital Structure

This study would try to investigate if such mismanagement of the financing policy (capital structure) is a result of the separation of cash flow rights from ownership rights. The theoretical arguments and findings by Du and Dai (2004) provide some justification as to why there could exist a relationship between the separation of cash flow rights from control rights with firm's financing decision. Their argument is known as the ultimate owners *non-dilution entrenchment effect* hypothesis.

According to their argument, in expanding corporate investment and enlarging business scope, corporations will need to raise new external funds. When choosing between equity and debt, the ultimate shareholders (family firm) may prefer debt because raising debt will not dilute their controlling position among equity holders in the corporation, especially in firms located at the lower end of the pyramid structure. The adverseness of equity issuance comes about because equity financing can introduce to the corporations (at the lower end of the pyramid structure) a new shareholder who may threaten the ultimate shareholder dominance. Take for example the family firm wide arrays of firms through its pyramid structure. Accordingly, Halim's control of Kinta Kelas arises because of the ownership of UEM in Kinta Kelas (see figure 1). When trying to raise external funds, Kinta Kelas issues equity, UEM ownership in that company obviously will be diluted. Since Halim's controlling power at Kinta Kelas arises from UEM shares in Kinta Kelas, when UEM shares are diluted, Halim control over Kinta Kelas would also jeopardize. Resistance to loose such control, issuance of debt as part of raising funds exercised at Kinta Kelas is much preferred by the ultimate owner. Such phenomenon is known as non-dilution entrenchment effect (Du and Dai 2004).

According to Du and Dai (2004), even though the current new equity financing only introduces many new dispersed equity holders, it will still dilute the control dominance of the ultimate shareholder indirectly. Consequently, as the ultimate owner loses his dominance, this will make it more likely for the ultimate owner to lose his shareholding dominance completely in future round of raising equity when a new larger shareholder is introduced. As noted by Harris and Raviv (1988) and Stulz (1988), they sug-

gest that the *entrenchment motive* is common and it may cause the controlling shareholder to increase leverage beyond the optimal point. The reason for this is to inflate the voting power of their equity stakes and at the same time reduce the possibility of the takeover attempts.

Even though raising debt solely may increase the threat of financial distress and bankruptcy, with *significant separation* of control rights and cash flow rights, this issue becomes of the lower concern for the largest stakeholder (the ultimate owner). Hence, we even suspect that the separation accommodates such pervasive behavior of the ultimate shareholder. This is because of relatively small cash flow rights, it is logical that ultimate owner will incur a relatively small cash flow loss once the firm doesn't fare well and bankruptcy occurs. In other words, if for example Kinta Kelas goes bankrupt as a result of excessive debt, the most that Halim will lose is 5.39% of its ownership value.

On the other hand, if the use of excessive debt turns out well for Kinta Kelas, this will be a huge gain for Halim with respect to control rights. This is because in the even of successful venture with debt, Halim who has high control rights over Kinta Kelas may now have substantial amount of excess cash reserve (Kinta Kelas's) under his discretion. Thus with such discretion imbedded in him, he may reap all sorts of personal benefits.

This asymmetry between loss in bad states and the gain in good states encourages the risk taking behavior of the controlling largest shareholder who will more likely raise corporate leverage without due concern for financial distress (Du and Dai 2004).

In a way, raising the leverage in firms located at the bottom of the pyramid chain in order to preserve ultimate owner dominance is also one form of minority shareholders expropriation. This is because, as financial distress shakes a firm, the ultimate owners would lose a small portion of his cash flow. But for the minority shareholders it means losing their entire stakes in the company.

As noted, we seek evidence about the effects of the pyramid structure through which the separation of cash flow rights and control rights influences firm's (distress firms) capital structure and value. We want to test two hypotheses. The *first* is that the wider the difference the cash flow rights from control rights in a firm as a result of pyramiding ownership, the stronger the ultimate shareholders incentive to raise leverage rather than equity as source of financing. And this is done without any concern for risk resulting from the accumulated debt. The excessive use of leverage rather than equity is done with the intention to preserve their dominance in related firms. The effect of this should result in a positive relationship between firm capital structure and the divergence of cash flow rights from control rights among the ultimate shareholders.

The second hypothesis holds that the bigger the separation of cash flow rights and control rights, the more significant usage of leverage as source of financing and this eventually lowers firm's valuation. As noted by Chen, Lensink and Sterken (1999) excessive use of leverage increases firm's financial risk and this may influence the cost of financing which then affects the firm values. When testing the effect of the excessive leverage on firm performance independently, Nandelstadh & Rosenberg (2003), Keown et al (1996); and Myers (1977) find that it was negative. From these findings we can suggest a negative relationship between firm performance and the interaction term of separation of cash flow rights and control rights with leverage.

Sample Characteristics

The samples of this study are Malaysian distressed companies. As end of year 2002 there were 100 listed distressed companies all together. The list is obtained from *Securities Commission of Malaysia* (SC). All of the financial and accounting information for each of the company is collected for three years prior to it was classified as distressed companies. These values will then be average out for three years for the purpose of analysis. The ownership structure information collected is also for the year end before it was classified as distressed companies. Since the ownership structure is rather stable over time (La Porta et al 1999), we expect no problem in employing single year ownership data to examine the relationship between corporate leverage and ownership structure over the three years period.

Following La Porta et. al (1999), we analyze ultimate ownership and control patterns in distressed companies. To begin our analysis, we will first identify the largest immediate majority shareholders for each firm located at the bottom of the pyramid structure. In the most cases, the immediate majority of shareholders of those corporations are individuals, corporate entities or financial institutions. Because this is almost impossible to trace the ownership link (the owners of those owners and so on) in the case that the largest immediate shareholders are individual or nonlisted firms, we only choose corporations in which their largest immediate shareholders are listed firms or listed financial institution. This is because the information on the ownership at these immediate listed entities is publicly available.

Because we have to choose only listed and largest immediate shareholders, in order to establish the ownership link we have to eliminate 75 distressed companies from our original sample. Our final sample constitutes 25 companies only. These 25 companies are those that we reasonably believe we are able to trace the ownership link all the way to the ultimate shareholders.

The drawback of this technique in identifying the ultimate shareholders is that you may not be able

to generalize the findings as much. This is because as mentioned, many Malaysian corporation including the distressed companies are affiliated with business groups and hence with pyramid structure through an unlisted corporation. The unlisted corporation and individual could have direct and indirect ownership links in these corporations. As a result, we are likely to underestimate the ultimate ownership and influence of large shareholders for group affiliated firms. Consequently we may also underestimate the effect of ownership structures on firm valuation in general.

After we have identified largest immediate shareholders (i.e. listed corporation or listed financial institution) for each of these 25 distressed companies, we then trace the largest owner of these companies and the owners of those owners and so on until we reach the ultimate shareholders. For our study, in most cases the tracing process takes three to four levels of corporation ownership before we could identify the ultimate shareholders. Studying the separation of ownership and control requires data on both cash flow rights and control rights, which we calculate using the complete chain of ownership. As illustrated previously, suppose that family owns 10 percent of the stock of a publicly traded firm A, which in turn has 30 percent of the stock of firm B. We then say that the family controls 10 percent of firm B – the weakest link in the chain of control rights. In contrast, we say that the family owns about 3 percent of the cash flow rights of firm B, the product of the two ownership stakes along the chain.

In each pyramid structures, to determine effective control at any immediate levels as well as the ultimate level, we need to use a cutoff point above which we assume that the largest shareholder has effective control over the immediate and final corporations. We use 10 percent as the cutoff point in our empirical analysis because that level is commonly used by other studies (Claessens et al 2002b). We start by reporting descriptive statistics on the separation of cash flow rights from control rights for distressed companies in table 1. On average the ultimate owners of distressed companies have 4.318% of cash flow rights in each company. In contrast, the control rights of the ultimate shareholders are 15.165%. The third item in table 1 is the ratio of cash flow rights to control rights. This ratio indicates the amount vested interest of the ultimate shareholders in order to gain some control in the distressed companies. On average the ratio is about 0.2571. This implies, the typical large ultimate controlling holder of distressed companies has 10 controlling votes for each 2.57 direct shares held. In other words, by owning 2.57 shares, it gives them a controlling power equivalent of 10 shares.

Insert table1

In sum, the sample shows pattern similar to what has already been disclosed in Claessens et.al (2000).

Firstly, in the distressed companies, control by the ultimate shareholders is enhanced through pyramid structure among firms. Secondly, control rights consequently exceed cash flow rights. That is the ultimate shareholder is often able to control a firm's operations with relatively small direct stake in its cash flow rights. These findings have important implications for the ability and incentives of the ultimate controlling shareholders to expropriate minority shareholders, as shown by Claessens, et al (1999). With regards to this study, the expropriation of the minority shareholders may take shape in the form of excessive use of leverage in order for the ultimate owner to maintain controlling rights in each of the distressed company.

Evidences of Research

In order to investigate the noted hypothesis, we first present evidence showing the association between firm leverage and ratio of separation of cash flow rights from control rights. As indicated earlier, the smaller the ratio the greater the separation between cash flow rights and control rights. Secondly we present evidence showing the association between firm profitability and the interaction term of separation of cash flow rights from control rights with leverage. Following that will be the regression analysis. We start by plotting the association between firm leverage and ratio of separation of cash flow rights from control rights. Firm leverage is proxy by the leverage ratio, where as separation of cash flow rights from control rights is proxy by the ratio of cash flow rights to control rights. Firm leverage generally decreases as the differences between cash flow rights and control rights become smaller (indicated by an increase in the ratio). In other words, as the difference between cash flow rights and control rights becomes smaller, the tendency for the ultimate shareholder to use leverage instead of equity for the reason of protecting their dominance decreases.

On the other hand if the difference becomes larger (indicated by a decrease in the ratio), then the tendency to use leverage to maintain their dominance increases. This pattern is consistent with the non-dilution entrenchment among the ultimate shareholder (Du and Dai 2004). But the relationship is not monotone.

For example as the ratio increases to 0.127 level, firm leverage seems to increase and again when the ratio at the 0.210 level, there is a raise in firm leverage again. However the general declining trend of firm's leverage as the separation of cash flow rights from control rights becomes smaller can still be observed.

Firm's valuation is proxy by firm profitability and the interaction term is proxy by the actual value of the interaction term of separation of cash flow rights from control rights ratio with leverage. It suggests that the larger the interaction term, the lower a

firm's valuation. This is consistent firstly with the generally accepted idea that one of the main reason for the financially distressed performance among these firms is due to high usage of leverage (Nohuda 2002). Secondly the trend also supports the hypothesis (2nd hypothesis) that firm's performance declines as the separation cash flow rights and control rights becomes wider which is consistent with the findings by Claessens et al (2002b, & 1999). Claessens et al (2002b & 1999) empirically show that due the significant of the separation cash flow rights and control rights expropriation of minority shareholders takes place and it affects firm valuation negatively. In this study, there seems to be some indication of minority expropriation by the ultimate shareholders and it is probably done through firm capital structure. The relationship shown is not monotone. But the general trend, that the interaction term affects firm valuation negatively seems obvious.

Regression Analysis

The evidences provide preliminary support consistent with our main hypothesis. However to control for variables other than the ultimate ownership structure that differ across firms that may affect firm's leverage and eventually performance, we use regression framework (Claessens et al 2002b). There will be two separate model of regression framework utilize. The first one to test the relation between the separation of cash flow rights and firm capital structure and the second one to test the relation between the interaction term of separation of cash flows right and control right and leverage with firm performance.

The basic regression specification employed for model one is as follows:

$$\text{Capital structure} = f(\text{proxy for the separation of cash flow rights and control rights, other control variable}) + \text{error} \quad (1)$$

The dependent variable for model 1 is log of firm total liability.

As for the variables used to proxy the separation of cash flow rights and control rights, the first variable is the simple *difference* in value between control rights and cash flow rights. The larger the difference, the higher the degree of the separation of the cash flow rights and control rights. The hypothesis mentioned earlier is that this separation would triggers the ultimate shareholders to exploit firms in the lower chain of the pyramid to increase leverage rather than equity in order to harness their dominance over the firm. Ultimate shareholders are able to do so, because the separation would create a situation of asymmetry between the loss in weak states and the gain in good states in firms located in the lower chain of the pyramid. Thus this asymmetry

opportunity encourages risk-taking behavior among the ultimate shareholders with respect to firm leverage policy. Therefore the bigger the separation, the higher the leverage for the firms located in the lower chain of the pyramid.

The second variable employed to proxy the separation of cash flow rights to control rights is a continuous variable defined as the share of cash flow rights divided by the share of the control rights in the hand of the ultimate shareholders. A small ratio is a direct result of lower cash flow rights in comparison to control rights. If this is the case, a small ratio may also indicate wide separation between these two variables. Hence, if the estimated coefficient is negative this only indicates that the lower the ratio the higher the leverage level of these firms.

The third variable does not really represent the separation of CFR and CR but more of the control possess by the ultimate owners - actual control rights. As mentioned earlier, control rights give the ultimate owners the authority over issues such as corporate policies, appointment, issuance of stocks and etc (Du and Dai 2004). If the coefficient of the control rights is positive and significant, this implies that among the distressed firms the ultimate owners may use the power vested in them to influence the capital structure of these firms.

For the other independent variable, we include several firm level variables commonly used in the studies of firm capital structure as control variables. Specifically, we control for non-debt tax shields, profitability, firm size, tangibility of firm's assets and market to book ratio.

The tax-based model suggests that the major benefits of using debt financing are to take advantage of interest tax shields. This is only true if the firm has enough taxable income to justify debt. The tax effect on financing decisions is examined following the non-debt tax shields (NDTS) argument of DeAngelo and Masulis (1980). They argue that firms can use other non-interest items like depreciation, amortization, tax credit, and pension funds to reduce corporate tax payments incentive. Therefore, firms that have higher non-debt tax shields are likely to use less debt. Among non-debt tax shields, depreciation is the most commonly used item by firms to shield income against tax. A number of studies conducted by several researchers; Kim and Sorensen (1986), Mackie-manson (1990) and Miguel and Pindado (2001) obtained negative relationship results, in which these are consistent with the argument by DeAngelo and Masulis (1980). In this study we plan to use log of depreciation expense, as proxy for NDTS (Miguel and Pindado (2001).

Profitability, measured as the return on assets (ROA) is also included in the regression analysis as control variable. On the one hand, profitability is expected to be negatively related with firm leverage. According to the pecking order theory of capital structure (Myers 1984, Myers and Majluf 1984),

firm prefers to raise capital first instead of retained earnings, and then instead of debt, and finally instead of issuing new equity. This may be due to the costs of issuing new equity arising from asymmetric information. Thus the past profitability of a firm, and hence the amount of earnings available to be retained, should be an important determinant of its current capital structure. This means that the higher profit firms should have a smaller debt ratio because they have more retained earnings and rely less on external debt. Consistent with this theory, studies performed by Titman and Wessel (1988), Baskin (1989) and Fama and French (2000) report that profitability is found to have a negative impact on firm's leverage. On the other hand, the positive correlation between profitability and leverage is also supported when considering the supply side. Rajan and Zingales (1995) argue that creditors prefer to give loans to firms with high current cash flow. High profit firms with abundant cash flow are expected to exhibit higher leverage than low profit firms do.

As argued by (Rajan and Zingales 1995) the firm size may be inversely related to the degree of information asymmetry between insiders and outside investors. This is because larger firms tend to release more information to the public than smaller firms do. If this is the case, larger firms may favor equity financing because the cost of equity financing due to asymmetric information is smaller for larger firms. Hence size should be negatively related to leverage. However, March (1982) and Titman and Wessels (1988) propose another argument as to why firm size and leverage are negatively related. Their argument is based on the accessibility of the equity market for the sole purpose of raising funds. They argue that small companies, due to their limited access to the equity market tend to rely heavily on bank loans for their finance requirements. Consequently, they become more heavily indebted than larger companies. Therefore the smaller the size of the firm, the more limited excess to the equity market for them, as a result of the tendency to use leverage. In this study, logarithm of firm total assets is used as proxy for firm size.

Firm growth opportunity is also included in the regression as control variable. We use firm shares price to book ratio as proxy for firm growth. Myers (1977) suggested that the amount of debt issued by a firm is inversely related to firm growth opportunities. Titman and Wessels (1988) also support that idea. According to them, by taking up leverage, the debt covenant may impose significant restriction on firms and such restrictions may hinder firms from growing because fewer investments opportunities can be taken up by them. It should also be noted that although growth opportunities are capital asset that adds value to a firm, they cannot be collateralized and do not generate current income. In addition, they are intangible in nature indeed and remain valuable as long as the firm is still alive. Consequently, as this

is their (growth opportunity) nature their value will fall precipitously if the firm faces a slight financial difficulty (Harris and Raviv 1990). Considering these possibility lenders would be hesitated to provide the necessary financing unless they are properly compensated. Hence, these features restrain firm to take on large amounts of contractual liabilities at this stage. For this reason, we suspect growth opportunities should be negatively related to debt ratio. Such empirical findings on this relationship have been made by Titman and Wessels (1988); Harris and Raviv (1990); and Barclay and Smith (1996)

Our regression model also includes tangibility. We use the ratio of fixed assets in total assets as a measure of asset tangibility. Tangible assets can serve as collateral, which will make the firms easier to obtain loan. More ever, asset substitution problem is less likely to occur when firms have more assets already in place (Myers 1977). Sometimes managers are inconsistent with their investment policy. For example, the intended investment at the time when the loan was applied, may be differently compared to the actual investment when the loan has been finally approved. The actual investment may be more risky in nature to compare to the one proposed initially. Since the rate of return required by the lenders is based on the original investment plan which is less risky in nature, the lenders would loose on the actual investment made by the borrowers as they are not appropriately compensated for such risky investment in the first place. On the other hand, if the intended investment have started or assets intended are already in placed, such substitution of investment policy is less likely to occur. Thus, such conditions are much preferred by the lender and their willingness to lend increases. For these two reason, the higher the value of tangible assets and if the assets are already in placed, the more likely a firm will have a high leverage ratio. Harris and Raviv (1990), and Williamson 1988 findings are consistent with this argument. To proxy tangibility, we used logarithm of firm total fixed assets.

The second regression model is intended to test the relationship between the interaction of the separation of CFR and CR with leverage and firm performance. For the dependent variable we examined two forms of firm's performance measurements. The first *dependent* variable is firm's return on assets ratio. The second one is log of total profit. The basic regression specification employed for model one is as follows:

$$\text{Firm's performance proxy} = f(\text{interaction term}_{135}, \text{Control variable}) + \text{error} \quad (2)$$

¹³⁵ For the interaction term it represent the product of the separation of cash flow rights and control rights with firm leverage - following technique used by Campbell, Lins and Roper (2003).

The interaction term is constructed by multiplying the ratio of cash flow rights and control rights with log of firms long term liability (Campbell, Lins and Roper 2003). If the interaction product is negatively related with firm's valuation measurements, then that shall validate our earlier proposition. That is why, the financially disaster's valuation of the Malaysian's distressed companies is due to high usage of leverage. What cause this high usage of leverage on the other hand, is ultimate shareholders motives to remain in power (non-dilution entrenchment effect) on the firms located at the lower part of the pyramid structure. In addition this motive was accommodated by the separation of cash flow rights from control rights.

For the rest of the independent variable, we include several firm- level variables commonly used in the studies of firm performance as control variables. Specifically, we control for firm's size and growth.

Firm's size is proxy by log of firm's total assets (Claessens et al 2002b). We expect firm size to be positively related with firm's performance. This is because as often mentioned in studies of firms in developed economies: larger firms have better disclosure, more liquid trading, and more diversified activities all of which may lead to lower probability of financial distress and improve performance.

The second variable is firm growth and it is proxy by firm market to book ratio. We expect it to be positively related with firm performance. With high market to book ratio, the public perceives that a firm has strong growth potential. Requirement for strong growth for firm on the other hand would be an increase in number of investment with positive NPV. Consequently these positive NPV investments should help improve firm's profitability and thus performance.

Regression Results

Table 2 presents regression results that link distressed firms leverage ratio to the separation of cash flow rights and control rights resulting from the pyramid structure. The degree of separation of cash flow rights from control rights is measured by two different variables separately.

Column 1 of table 2 used the simple difference between control rights and cash flow rights as the main independent variable. The regression result shows that the difference between control rights and cash flow rights has positive effects on firm's leverage but it is not significant.

Column 2 of table two employs the alternative measures of the degree of the separation of cash flow rights and control rights and that is the ratio of cash flow rights to control rights. It is a continuous variable, defined as the share of cash flow rights divided by the share of the control rights in the hand of the ultimate shareholders. The coefficient of this ratio is negative but not significant. The negative coefficient

indicates that the smaller the ratio, the higher the firm's leverage.

Column 3 of table two represent the relationship between the actual control rights that the ultimate owner possess and firm's leverage. The coefficient of the control rights is positive and significant. This implies that among the distress firms the ultimate owners may have used the power vested in them to influence the capital structure of these firms.

The findings in table 2 provide evidence for the non-dilution entrenchment effect. Thus the non-dilution entrenchment effect among the ultimate shareholders contribute to a higher corporate leverage level when there is a higher degree of the separation of cash flow rights from control rights created by the pyramid ownership structure. However due to lack of importance in the coefficient for the separation of cash flow rights from control rights (both measurements), caution has to be taken in interpreting the findings. Nevertheless, the consistency of these coefficients with respect to our hypothesis and plus the fact that the coefficient for the ultimate owners *control rights* is significant, indicates that our findings are paralleled with the suggested theory. One possible explanation for this lack of significance may be due to small number of observation (Gujarati 2002). Our observations are small as compared to Du and Dai (2004) study that utilizes 243 observations of Malaysian sample. They find that the relationship between the separation of cash flow rights and control rights and firm leverage are significant

Turning to the other explanatory variables, we find that some of them have statistical significant explanatory power. For instance, the coefficient for the profitability measurement was negative and significant. This means, higher profitability is associated with a lower firm leverage. This finding is consistent with the pecking order theory (Myers and Majluf 1984) as higher profits firms rely more on internal financing, while lower profit firms raise more external debt to compensate for the shortage of funds.

The estimated coefficient of firm size is positive and significant. The findings first of all support the views of Titman and Wessels (1988) and Rajan and Zingales (1995). They argue that the increase in firm size, is as a result of business diversification activities undertake by the firm. Since diversification normally stabilizes firm's cash flow, chances of bankruptcy decreases and this may be perceived positively by the creditors. Therefore as size increases, firm leverage should also increase simultaneously. Chung (1993) findings also support our results that firm leverage is positively related with firm size. In his study, he argues that larger firm may have lower agency costs associated with the assets substitution and the underinvestment problem. Since these two problems discourage creditors from providing credits to firms, minimization of them through an increase in firm size should attract more debt

financing. The estimated coefficient of non-debt tax shield is also significant and has the depressing effect on corporate leverage. This is consistent with the non-debt tax shields (NDTS) argument of DeAngelo and Masulis (1980). They argue that firms can use other non-interest items like depreciation, amortization, tax credit, and pension funds to reduce corporate tax payments incentive. Therefore, firms that have higher non-debt tax shields are likely to use less debt.

On to our second model, where we try to establish a relationship of the combined impact of separation of cash flow rights and control rights and leverage on firm's valuation. The combination impact of separation of cash flow rights and control rights and leverage is proxy by an interaction term.

Table 3 presents regression results that link the interaction product with distress firm's performance measurements. Firm performance is measured by two different variables separately: log of firm total profit and return on assets (ROA). Part 3A of table 3, uses the firm's ROA as the dependent variable. Whereas 3B uses firm's total profit, only the regression results on part 3A shows that the interaction product has a significant negative effect on firm's valuation. Again we suspect that the lack of robustness of our findings is due to inferior observation numbers.

Among the two explanatory variables, only firm's growth prospect has significant explanatory power. The finding is common, because higher growth reflects better future growth opportunities and this lead eventually lead to higher firm profitability and evaluation (Claessens et.al 2002b). The other firm specific variable is insignificant for both specifications. The results in table 3 provide evidence of the proliferation and pervasiveness of the pyramid structure (Attig, Fisher and Gadhoun 2002). Thus, the pyramid structure accommodates the non-dilution entrenchment effect of the ultimate shareholders and this leads to a higher corporate leverage level. Ultimately, such none economical usage of leverage disastrously affects firm performance.

Conclusion

In this paper, we examine the separation of cash flow rights and control rights among Malaysian distress companies resulting from the pyramiding organized by the ultimate owners. We pay a particular attention on how the divergence of cash flow rights and control rights affects these companies capital structure. Our findings lend support to the leverage-increasing non-dilution entrenchment effect on corporate leverage, whereby the separation of cash flow rights and control rights has led to the increase of leverage among the distressed companies.

Consequently, excessive use of leverage in order to protect ultimate owner's dominance in these

companies then leads to disastrous financial valuation. Overall our research points out the existence of a relatively risky capital structure among the distressed firms results from poor corporate governance in the presence of separation of cash flow rights and control rights. This risky capital structure has led to the fragility of corporations. Thus our finding may provide one additional explanation for the severity of the drop in corporate value among the distressed companies.

This study can be extended in several ways. One way is by extending the study done by Claessens et.al (2000). They discovered that in Asian countries, in most cases the ultimate owners of the pyramid holding groups are privately owned family business. Other categories of owners are state and corporations. Claessens et.al (2002) then discovered that the degree of minority expropriation resulting from the pyramid structure also varies based on the types of the ultimate owners. Perhaps as an extension of this study, afford can be made to identify the various ultimate owners for the Malaysian pyramid groups of companies and ascertain if the degree of minority expropriation with respect to the use of leverage varies according to the types of ultimate owners as well.

Another way to validate the theory of non-dilution entrenchment effect in the case of Malaysian capital market, is to adopt the methodology (Baek, Kang and Lee 2004). Baek et al (2004) analyzed announcement of private securities issuance by companies within a Korean Chaebol. They discovered that if the issue was intended for another company within the same Chaebol group then the reaction of the market towards the announcement was negative. On the other hand if the issuance was meant for companies outside the business group then the announcement pertaining to it generates positive reaction. Baek et al (2004) argued that the issuance of securities within the Chaebol group may be intended to preserve the dominance of the ultimate owners. Because by maintaining the control that guarantees a safe passage for them to expropriate minority shareholders rights, therefore such business practices are unfavorable in the eye of the market. Similar argument can be said for private securities transaction that might have taken place within the Malaysian pyramid holding groups. Because issuance of private securities was done so that control is not surrender to parties outside the group, the public should perceive such transactions with great passiveness.

References

1. Attig, N., Fischer, K., and Gadhoun, N (2004) On the determinants of pyramidal ownership: evidence on dilution of minority interests, Sobey School of Business, Saint Mary's University, Halifax, Nova Scotia, working paper.

2. Bae, K. H., J. Kang, and J. M. Kim (2002) Tunneling or value added? Evidence from mergers by Korean business groups, *Journal of Finance*, 2695-2740
3. Baek, J.S., Kang, J. S., and Lee, I. (2004) Tunneling and business group: Evidence from private securities offerings by Korean business group, *Asian Finance Association working paper*
4. Barclay, M.J and C. W. Smith (1995). The maturity structure of the corporate debt, *Journal of Finance*, 50, 609-632.
5. Baskin, J (1989) An empirical investigation of the Pecking order hypothesis. *Financial Management*, 18, 26-34
6. Bertrand, M., P. Mehta and S. Mullanaitan (2002) Ferreting out tunnelling: an application to Indian business group, *Quarterly Journal of Economics*, 121-148
7. Brigham, E. F. and L.C. Gapenski (1998) *Financial Management*, The Dreyden Press, New York, USA.
8. Campbell, R. H. , Lins, K. V., and Roper, A. H. (2003) The effect of capital structure when expected agency costs are extreme, *Journal of Financial Economics*, 445-460
9. Chen, C. R. and Sterken, T. L. (1999) Managerial ownership and agency conflict: A nonlinear simultaneous equation analysis of manager ownership, risk taking, debt policy and dividend policy. *The Financial Review* 34 P 119-136
10. Claessens, S., S. Djankov, J. Fan, and L. Lang, (1999) Expropriation of minority shareholders in East Asia, *Working paper World Bank*
11. Claessens, S., S. Djankov, and L. Lang, (2000) The separation of ownership and control in east Asian corporations, *Journal of Financial Economics* 58, 81-112
12. Claessens, S., S. Djankov, and L. Lang, (2002). The benefits of group affiliation: evidence from East Asia, *Working paper University of Amsterdam*.
13. Claessens, S., S. Djankov, J. Fan, and L. Lang, (2002). Disentangling the incentive and entrenchment effects of large shareholding, *Journal of Finance* 57, 2741-2771
14. Chung, K. H. (1993) Assets characteristics and corporate debt policy: An empirical test, *Journal of Business Finance and Accounting*, 20, 83-98
15. Damodaran, A. (2001) *Corporate Finance: Theory and Practice*, John Wiley and Sons. New York, USA
16. DeAngelo, H., Masulis, R. (1980) Optimal capital structure under corporate and personal taxation, *Journal of Financial Economics* 8, 3 – 30.
17. Du, J., and Dai, Y. (2004) Ultimate corporate ownership structure and capital structure: evidence from East Asia, *Chinese University of Hong Kong*, working paper.
18. Fama, Eugene F., and Kenneth R. French. (2000) Testing tradeoff Pecking order predictions about dividend and debt, working paper #506, CRSP, University of Chicago.
19. Fauzias, M.N., and Ruzita, A.R. (2004) Corporate restructuring and its wealth effects: The case of Malaysian Resources Corporation, *Asian Finance Association working paper*
20. Friedman, E., S. Johnson, and T. Mitton (2003) Propping and Tunneling, *Journal of Comparative Economics*, forthcoming
21. Grossman, S.J and Hart, O.D. (1988) One shares, one vote and the market for corporate control, *Journal of Finance* 43, 145-167
22. Gujarati, D. (2002) *basic Econometric*, Macgraw Hill, New York
23. Harris, M. and Raviv, A. (1990) Capital structure and information role of debt, *Journal of Finance* 5, 321-349
24. Hoshi, T., Anil K., and David, S. (1991) Corporate structure, liquidity, and investment: Evidence from Japanese industrial group, *Quarterly Journal of Economics* 106, 317-346.
25. Jensen, M.C. (1986) Agency cost of free cash flow, corporate finance and takeovers, *American Economic Review* 76, 323-329
26. Johnson, S.,R. La Porat, F. Lopez-de-Silanes, and A. Shleifer (2000) Tunneling, *American Economic Review* 90, 22-27
27. Keown, A. J., Scott DF, Martin, J. D and Peter, J. W. (1996) *Basic Financial Management*. Prentice Hall (International Addition)
28. Khanna, T., and K. Palepu (2000) Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups, *Journal of Finance* 55, 867-891
29. Khanna, T., and Rivkin, J. (2001) Estimating the performance effect of business groups in Emerging market, *Strategic Management Journal* 22, 45-74
30. Khanna, T., and Rivkin, J. (1999) Estimating the performance effects of groups in emerging markets, *Harvard Business School working paper*
31. Kim, W. S, and E. H Sorensen (1986) Evidence on the impact of the agency cost of debt on corporate debt policy, *Journal of Financial and Qualitative Analysis*, 21, 131-144
32. La Porta, R., F. Lopez-de-Silanes and A. Shleifer (1999) Corporate ownership around the world, *Journal of Finance* 54, 471-517.
33. Leff, Nathaniel (1976) Capital market in less developed countries: The Group principle,
34. Money and Finance in Economic growth and Development. R. Mckinnon, ed New York: Marcel Dekker.
35. Leff, Nathaniel (1976) Industrial Organization and Entrepreneurship in less developed countries: The Economic Group: Economic Development and Cultural change 26:4, 661-675.

36. Lemmon, M., and Lins, L. (2003) Ownership structure and corporate governance and firm value: Evidence from the East Asian financial crisis, *Journal of Finance* 58, 1445-1468
37. March, P. (1982) The choice between equity and debt: An empirical study, *Journal of Finance* 37, 121-144
38. Mackie-Mason, J. (1990) Do taxes affected corporate financing decision?, *Journal of Finance* 45, 1471-1495
39. Miguel, A.D. Pindado, J. (2001) Determinant of capital structure: Evident from Spanish panel data, *Journal of Corporate Finance* 7, 77-99
40. Morck, R., and Yeung, B. (2004) Special issues relatın to corporate governance and family control, Working paper in Global Corporate Governance Forum
41. Morck, R., Stangeland. A. D., and Yeung B. (2001) Inherited wealth, corporate control and economic growth: the Canadian disease, NBER working paper no 6814
42. Myers, S.C. (1977) Determinants of corporate borrowing, *Journal of Financial Economics* 5, 147-175
43. Myers, S.C. (1984) The capital structure puzzle, *Journal of Finance* 39, 575-592
44. Myers, S. C. and Majluf, N.S. (1984) Corporate financing and Investment decisions when firms have information that investors do not have, *Journal of Financial Economics* 13, 187-221
45. Nandelstadh, A. and Rosenberg, M. (2003) Corporate Governance Mechanism and Firm Performance. Evidence from Finland. Swedish School of Economics and Business Admins paper 1-28
46. Norhuda Abdul Rahim (2002) Komposisi ahli lembaga pengarah dan masalah kewangan yang tenat, MBA thesis UKM
47. Rajan, R. G and Zingales, L. (1995) What do we know about capital structure? Some evidence from international data, *Journal of Finance* 50, 1421-1460
48. Shleifer, A. and Vishny, R. W. (1986) A survey of corporate governance, *Journal Of Finance* 52, 737-783
49. Stiglitz, J. E., Weiss, A. (1981) Credit rationing in market with imperfect information, *American Economic Review* 71, 393-410
50. Stulz, R., (1988) Managerial discretion and optimal financing policies, *Journal of Financial Economics* 26, 3-27
51. Titman, S. and Wessels, R. (1988) The determinant of capital structure, *Journal Finance* 43, 1-19
52. Williamson, (1988) Corporate financial policy and Corporate governance, *Journal of Finance* 43, 567-591
53. Wolfenzon, D. (2004) A theory of family business groups and pyramidal ownership, Working paper.

Appendices

Table 1. Separation of Cash Flow rights from Control Rights in Malaysian PN4 companies

Control Rights	Cash Flow Rights	Ratio of Cash flow rights ratio to Control Rights ratio
15.68%	4.318%	0.2571

Table 2. Regression results on the relationship between leverage and the measurement of separation of cash flow rights from control rights. In parentheses are t-statistics

Dependent variable: Log of total liability			
Independent Variable	1	2	3
Difference of C. Flow Rights from C. Rights	2.256 (1.687)		
Ratio of C. Flow Rights from C. Rights		-14.31 (-1.487)	
Control Rights (%)			14.35 (1.917)*
Log of T. profit	-1.752*** (-2.586)	-2.364*** (-3.337)	-2.456*** (-3.322)
Log of Depreciation	-2.388*** (-2.732)	-2.253*** (-2.272)	-2.293*** (-2.936)
Market to book ratio	0.9059 (0.3987)	-2.263 (-0.712)	-2.294 (-0.323)
Log of T. Assets	4.831*** (2.307)	0.4573*** (4.524)	4.107*** (2.2235)
* significant at 10% level			
** significant at 5% level	R ² = 0.5730	R ² = 0.5459	R ² = 0.5125
*** significant at 1% level			

Table 3 (A). Regression results on the relationship between firm performance measurement and the measurement of the interaction of separation of cash flow rights from control rights with firm leverage
In parentheses are t-statistics

Dependent Variable: Profit measurement (ROA)	
Interaction product	-0.1057*** (-3.462)
Price to book ratio	0.4360*** (4.7575)
Log of total assets	0.00921 (1.1939)
R ² = 0.1729	

Table 3 (B). Regression results on the relationship between firm performance measurement and the measurement of the interaction of separation of cash flow rights from control rights with firm leverage. In parentheses are t-statistics

Dependent Variable: Profit measurement (Log of total profit)	
Interaction product	-0.1268 (-1.020)
Price to book ratio	0.6764 (1.567)
Log of total assets	-0.5725 (-0.418)
R ² = 0.7200	

* significant at 10% level
 ** significant at 5% level
 *** significant at 1% level