CHAPTER 4

THE RESULT OF REGRESSION ANALYSIS

The content in this chapter presents the result of regression analysis according to the model proposed in previous section which tests capital structure readjustment of non-financial firms listed on the Stock Exchange of Thailand covering periods from 1992 to 2002. The result consists of five separate parts. The first part provides the result of statistical analysis of variables as the second part displays the results of firm's capital structure readjustment toward the target capital structure. The third part shows the relation between firm attributions firm's capital structure non-readjustment and the following section shows the longevity firm spends in rebounding toward the target capital structure. The result of the study of the role of the stock market returns relative to influence of other corporate variables in explaining firm's capital structure is put at the fifth part.

4.1. The result of statistical analysis of studied variables

Table 4.1 exhibits the statistical data composed of mean, standard deviation, minimum, maximum, and median, of studied variables. The studied variables include debt ratio, total asset, book value to market value of equity, earning before interest and tax to total asset, fixed asset, equity-return volatility and the Stock Exchange of Thailand index.

Referencing to the study, the result displays the capital structure of the firms listed on the Stock Exchange of Thailand to increase significantly on the average of 0.2 to 0.46, during the pre-crisis period ,to about 0.6 , during the crisis period. To elaborate a little more, the crisis period is defined here as the period which Thailand encountered both financial and economic damages. The results are proportionate at the high total debt to the total debt plus the total market value of equity. The results, nevertheless, may have been directly influenced by the declination of the Thai baht value which might have influenced the results. The effect is that the value of the liabilities within firms drastically increases. An increasing value of the debt could mean that there are higher overall ratios of the total debt to the total debt plus the total equity. Thus, not only do the mean of the firms' debt ratios dramatically climb up during economic downturn, but the standard

Table 4.1

Statistic Data of Variables Studied

The table below shows yearly mean, standard deviation, minimum, maximum and median of firms' debt ratio from 1992 to 2002 (total debt divided by total debt plus the market value of equity), total asset, book to market value of equity (the ratio of the book value of equity divided by the market value of equity), return on asset (the ratio of earning before interest and tax by total assets), total fixed asset, equity-return volatility (the simple standard deviation of log-returns over the 12 months preceding the measurement period) and Stock Exchange of Thailand index. All yearly and monthly data of non-financial companies listed on the Stock Exchange of Thailand (SET) are collected from Data Stream database.

Variables	Description	Mean	Standard Deviation	Maximum	Minimum	Median	N
ADR 1992	Actual debt Ratio	0.2046	0.1386	0.6388	0.0005	0.1838	143
ADR 1993	Actual debt Ratio	0.2131	0.1539	0.7199	0.0002	0.1776	181
ADR 1994	Actual debt Ratio	0.2654	0.1841	0.8349	0.0000	0.2386	229
ADR 1995	Actual debt Ratio	0.3607	0.2196	0.8851	0.0002	0.3526	244
ADR 1996	Actual debt Ratio	0.4687	0.2508	0.9990	0.0002	0.5037	263
ADR 1997	Actual debt Ratio	0.6372	0.3009	0.9930	0.0000	0.7400	264
ADR 1998	Actual debt Ratio	0.5812	0.3280	0.9963	0.0000	0.6594	275
ADR 1999	Actual debt Ratio	0.4987	0.3233	0.9996	0.0000	0.5399	276
ADR 2000	Actual debt Ratio	0.5140	0.3363	0.9950	0.0000	0.5698	275
ADR 2001	Actual debt Ratio	0.4601	0.3312	0.9969	0.0000	0.4785	276
ADR 2002	Actual debt Ratio	0.3902	0.3075	0.9946	0.0000	0.3679	276
ASSET	Book Value of Asset(million)	7.5222	20.8669	345.7285	0.0598	1.8709	2218
B M	Book Value of Equity / Market Value of Equity	1.3353	2.9726	28.3438	-28.7333	0.9491	2218
ROA	Return on Asset	0.0663	0.1207	1.3945	-1.7422	0.0728	2218
FXA	Fixed Asset / Total Asset	0.4413	0.2567	5.6702	0.0027	0.4000	2218
EVOL	Equity Volatility	0.1681	0.1154	0.9155	0.000	0.1403	2218
SET index	Stock Exchange of Thailand Index	510.816	421.484	1682.850	269.190	387.840	11

deviation and the median of the firms' debt ratio increase during the crisis period. During the post-crisis period, the debt ratio begins to decline. Assuming that firms carry a heavy sum of debts during the pre-crisis period adjust their debt portion down to reduce and prevent the various financial constraints, as a result debt ratio remarkably decline. Perhaps, the uncertainty of the Thai baht value's stability forces firms borrowing their capital from foreign sources to pay back principal to creditor immediately. This also reveals that the average of the debt ratio to decline. Hence, the average, standard deviation, and median of the debt ratio, during the period 1997 and 1998, is greater than other periods.

4.2 The results of testing firm's capital structure readjustment toward the target capital structure

The figures displayed in table 4.2 shows that firms listed on the Stock Exchange of Thailand fail to rebound toward their target capital structure in specifically every period of the study, which are the pre-crisis (1992-1996) and the post-crisis period (1999-2002). According to the readjustment hypothesis, if a firm rebalances toward the capital structure target, the coefficient (β_1) of ADR_{t-1}, representing the firm's capital structure target, should be closer to one. At the same time, the coefficient (β_2) of $IDR_{t-1, t}$, representing the firm's inert behavior in returning toward the target capital structure, should be closer to zero. Nevertheless, the outcome displayed in the table concerning the coefficients (β_1) and (β_2) during pre-crisis, and post-crisis period respectively are 0.45 and 0.50, and 0.15 and 0.68. They are all inconsistent with the readjustment hypothesis. The estimates coefficients (β_1), representing the firm's the target capital structure, is not even close to one at all. This conveys the message that the firms can hardly maintain their target capital structure. As for the estimates coefficients (β_2), being greater than zero in every case, indicates that firms may have taken some action on theirs debt or equity, but optimal capital structures can not be maintained. With this in mind, the effect of economic crisis on firm's capital structure readjustment still needs further examination.

During the before-crisis period, the coefficient value β_2, representing firm's non-action on debt or equity, is 0.50. However, the coefficient value β_2, used during post crisis period, is 0.68. This is greater than the coefficient value β_2 during the pre-crisis period. The theory states that the higher the value of β_2 is, the higher tendency the firms will not take action on their capital ratio. Therefore, firm's capital ratio assumes not to have taken any action.

Table 4.2

Testing the Firm's Capital Structure Readjustment

The table presents the result of pool cross-sectional regressions predicting firms' debt ratio (total debt divided by total debt plus the market value of equity) with inert debt ratio IDR (where the lagged market value of equity is grossed up by the raw market stock return over the year). The samples lie between periods of 1992 to 2002. The samples are also categorized into two sub periods which are pre-crisis (1992-1996), and post-crisis (1999-2002). The top cell reports coefficient and bottom cell reports t-statistical value. All regressions are ordinary least square.

$$ADR_t = \beta_0 + \beta_1 . ADR_{t-1} + \beta_2 . IDR_{t-1,t} + \partial_t \quad (1)$$

	C	ADR_{t-1}	$IDR_{t-1,t}$	R^2	N
92-02	0.0829***	-0.0749***	0.8932***	0.6966	2218
	-12.2198	(-2.4127)	-29.5443		
92-96	0.0862***	0.4538***	0.5042***	0.7222	787
	(-11.4423)	-5.2088	-6.5885		
99-02	0.0317**	0.1561*	0.6887***	0.6371	924
	-2.2909	-1.6909	-7.5125		

***indicate coefficient is significantly different from zero at the 0.01 level.

** indicate coefficient is significantly different from zero at the 0.05 level.

* indicate coefficient is significantly different from zero at the 0.1 level.

In the practical world, the coefficient value during the pre-crisis period and the post-crisis period are different. This explicitly indicates that firms behave more inertly during the course of altering their capital structure to the target capital structure during the post-crisis period than the pre-crisis period. It is assumed here that gaining access to financial market during the different periods before and during the post-crisis is accounted for the fluctuation under the degree of capital structure readjustment. During pre-crisis period, firms are quite capable of issuing or retiring debt because of the sources of capital on hand. Firms are also able to acquire the capital from both foreign and domestic financial institution. Nevertheless, because of the crisis, domestic financial systems indirectly halt funding. This leads to the entire economy to carry huge amounts of debt. Debts disperse everywhere including both the institutions that have trouble and beyond those financial institutions such as domestic banks. The blocked flow of capital causes severe shortage in liquidity to the entire economic system. Acquiring capitals becomes extremely difficult during those times. Therefore, accessing to capital sources during pre-crisis period is much easier to achieve than during the pre-crisis period. As such, so is the capital structure readjustment.

4.3 The result of testing the relation between firm attributions and firm's inert behavior in returning toward the target capital structure

The result in table 4.3 shows that there is a strong tendency on the negative relationship between sizes of the firm's asset and the tendency of rebalancing toward the target capital structure. It reveals that an increase in number of the firm's asset does not indicate that firms are likely to rebound toward their optimal capital structure even though they contain higher capabilities to acquire debt. Firms with larger sizes of asset behave more inertly to readjust their capital structure to the set capital structure than those with smaller sizes of asset. This supports the magnitude on the coefficient estimates (β_2) in table 4.3, positively relates with the increase on size of the firm's asset.

Referring to the theory, the higher value of (β_2) , the more inclined the firms are not to take any action on their capital ratio in relation to their size. Nevertheless, practically, the results oppose the hypothesized relationship between the size of the firm's asset and the readjustment of the firm's capital structure to the target capital structure as previously mentioned. The methodology assumes that the capital structure rebounding of large firms is achieved more

Table 4.3

Testing the Relation between Firm Attributions and Firm's Inert Behavior in Returning toward the Target Capital Structure

: Categorized by Firm's Asset

The table presents the result of pool cross-sectional regressions predicting firms' debt ratio (total debt divided by total debt plus the market value of equity) with inert debt ratio IDR (where the lagged market value of equity is grossed up by the raw market stock return over the year). However, this table reports pool regression results by subcategories, based on firm-year observations one year prior. The variable used as sorter is total asset. The samples lie between periods of 1992 to 2002. The top cell reports coefficient and bottom cell reports t-statistical value. All regressions are ordinary least square.

$$ADR_t = \beta_0 + \beta_1 \cdot ADR_{t-1} + \beta_2 \cdot IDR_{t-1,t} + \partial_t \quad (1)$$

$ASSET_{t-1}$	C	ADR_{t-1}	$IDR_{t-1,t}$	R^2	N
LOW	0.0710***	0.6050***	0.2093	0.7093	343
	(5.6525)	(3.8399)	(1.3431)		
MEDIUM-LOW	0.0847***	0.0863	0.6797***	0.6858	343
	(5.7668)	(0.5325)	(4.2537)		
MEDIUM	0.0680***	0.0822	0.7688***	0.7713	343
	(5.5802)	(0.6668)	(6.4428)		
MEDIUM-HIGH	0.0966***	-0.0853	0.8611***	0.6714	343
	(5.7818)	(-0.6061)	(6.2002)		
HIGH	0.0995***	-0.1384	0.9549***	0.7182	343
	(5.7609)	(-1.3970)	(9.6501)		

***indicate coefficient is significantly different from zero at the 0.01 level.

** indicate coefficient is significantly different from zero at the 0.05 level.

* indicate coefficient is significantly different from zero at the 0.1 level.

Table 4.4

Testing the Relation between Firm Attributions and Firm's Inert Behavior in Returning toward the Target Capital Structure

: Categorized by Firm's Equity-Return Volatility

The table presents the result of pool cross-sectional regressions predicting firms' debt ratio (total debt divided by total debt plus the market value of equity) with inert debt ratio IDR (where the lagged market value of equity is grossed up by the raw market stock return over the year). However, this table reports pool regression results by subcategories, based on firm-year observations one year prior. The variable used as sorter is equity-return volatility. The samples lie between periods of 1992 to 2002. The top cell reports coefficient and bottom cell reports t-statistical value. All regressions are ordinary least square.

$$ADR_t = \beta_0 + \beta_1 \cdot ADR_{t-1} + \beta_2 \cdot IDR_{t-1,t} + \partial_t \quad (1)$$

EQUITY-RETURN VOLATILITY $_{t-1}$	C	ADR_{t-1}	$IDR_{t-1,t}$	R^2	N
LOW	0.0760***	-0.1154	0.9296***	0.7015	343
	(6.1691)	(-0.7605)	(6.3074)		
MEDIUM-LOW	0.0758***	0.2454*	0.6465***	0.7396	343
	(6.5393)	(1.6967)	(4.7042)		
MEDIUM	0.0778***	0.3710***	0.4705***	0.7138	343
	(5.8404)	(2.8090)	(3.7359)		
MEDIUM-HIGH	0.0591***	0.2044	0.6419***	0.7672	343
	(4.3590)	(1.5409)	(4.8945)		
HIGH	0.0487	-0.1326	0.9581***	0.5484	343
	(1.5843)	(-1.0984)	(7.8712)		

***indicate coefficient is significantly different from zero at the 0.01 level.

** indicate coefficient is significantly different from zero at the 0.05 level.

*indicate coefficient is significantly different from zero at the 0.1 level.

Table 4.5

Testing the Relation between Firm Attributions and Firm's Inert Behavior in Returning toward the Target Capital Structure

: Categorized by Book to Market Value of Equity

The table presents the result of pool cross-sectional regressions predicting firms' debt ratio (total debt divided by total debt plus the market value of equity) with inert debt ratio IDR (where the lagged market value of equity is grossed up by the raw market stock return over the year). However, this table reports pool regression results by subcategories, based on firm-year observations one year prior. The variable used as sorter is book to market value of equity. The samples lie between periods of 1992 to 2002. The top cell reports coefficient and bottom cell reports t-statistical value. All regressions are ordinary least square.

$$ADR_t = \beta_0 + \beta_1 . ADR_{t-1} + \beta_2 . IDR_{t-1,t} + \partial_t \quad (1)$$

BOOK TO MARKET VALUE OF EQUITY $_{t-1}$	C	ADR_{t-1}	$IDR_{t-1,t}$	R^2	N
LOW	0.0943***	-0.092	0.8998***	0.7786	343
	(8.0751)	(-0.5585)	(5.4646)		
MEDIUM-LOW	0.0865***	0.2432	0.6727***	0.7460	343
	(7.5617)	(2.0876)	(6.2149)		
MEDIUM	0.0824***	0.3463**	0.5370***	0.6864	343
	(5.5910)	(2.5360)	(4.1464)		
MEDIUM-HIGH.	0.0258*	0.0267	0.8224***	0.7478	343
	(1.8513)	(0.2063)	(6.4205)		
HIGH	0.0082	-0.0174	0.8725***	0.6951	343
	(0.4146)	(-0.1083)	(5.4637)		

***indicate coefficient is significantly different from zero at the 0.01 level.

** indicate coefficient is significantly different from zero at the 0.05 level.

* indicate coefficient is significantly different from zero at the 0.1 level.

Table 4.6

Testing the Relation between Firm Attributions and Firm's Inert Behavior in Returning toward the Target Capital Structure

: Categorized by Return on Asset

The table presents the result of pool cross-sectional regressions predicting firms' debt ratio (total debt divided by total debt plus the market value of equity) with inert debt ratio IDR (where the lagged market value of equity is grossed up by the raw market stock return over the year). However, this table reports pool regression results by subcategories, based on firm-year observations one year prior. The variable used as sorter is return on asset. The samples lie between periods of 1992 to 2002 . The top cell reports coefficient and bottom cell reports t-statistical value. All regressions are ordinary least square.

$$ADR_t = \beta_0 + \beta_1 \cdot ADR_{t-1} + \beta_2 \cdot IDR_{t-1,t} + \partial_t \quad (1)$$

RETURN ON ASSET $_{t-1}$	C	ADR_{t-1}	$IDR_{t-1,t}$	R^2	N
LOW	0.0973***	-0.2540	1.0339***	0.6267	343
	(4.2957)	(-1.4056)	(5.7196)		
MEDIUM-LOW	0.0859***	-0.0857	0.8725***	0.6672	343
	(5.8291)	(-0.6336)	(6.6057)		
MEDIUM	0.0873***	0.0627	0.7795***	0.7376	343
	(5.7628)	(0.5107)	(6.4550)		
MEDIUM-HIGH	0.0893***	0.2456**	0.5615***	0.6915	343
	(7.2716)	(2.0112)	(4.7127)		
HIGH	0.0657***	0.2594*	0.4969***	0.6850	343
	(6.5086)	(1.6934)	(3.2041)		

***indicate coefficient is significantly different from zero at the 0.01 level.

** indicate coefficient is significantly different from zero at the 0.05 level.

* indicate coefficient is significantly different from zero at the 0.1 level.

easily than those of small firms because the larger the firm's size tends to be more diversified. Moreover, large firms are less likely to go bankrupt due to their low volatility on income, gaining more access to the source of capital than smaller firms do. Virtually, the difference between the existing results and the before-study hypothesis magnificently points out that the large firms are less concerned in overlooking capital structure readjustment. This is true even though large firms possess greater capability to do so.

To recap a little, the paper did not intend to take a stance on the position of having the outcome of the firm's as being under an inertia hypothesis because there are other possibilities and variables to look at. The variables are financial transaction costs, market frictions, obligation arisen from debt covenant, or irrational behavior pattern.

Until now, the result in table 4.4 is still inconclusive in regard to the association between the firm's capital structure readjustment and the firm's equity-return volatility. Although the firms are sorted by their equity-return volatility, but they all behave inertly during rebounding toward their target capital structure. Thus, the coefficient estimates pattern is undetermined. The coefficient estimates (β_2) which range from low risk to high risk are approximately 0.92, 0.64, 0.47, 0.64, and 0.95 respectively. Perhaps, a non-linear relationship will determine the relationship between the firm's capital structure rebalancing and the firm's equity-return volatility.

In theory, the relatively higher equity-return volatility firms expect less correlation with the tendency of rebalancing toward their target capital structure. The results are consistent with the relatively lower equity-return volatility firms. Perhaps again, this may have been because the lower equity-return volatility firms were able to gain access to favorable lending term than the high risky firms. The capital structure readjustment was favorable than expected.

The relationship under table 4.5 is still uncertain between the firm's growth opportunity and the firm's capital structure rebalancing. Perhaps this is because the study is incapable of measuring a non-linear relationship. The fluctuating patterns in the degree of coefficient values (β_2) of firms, ranging from low growth to high growth, are approximately 0.89, 0.67, 0.53, 0.82, and 0.87 respectively. This shows that there are no self-evident distinction between the rebalancing behavior of high-growth and low-growth firm. As theory implies, all firms with relatively high growth expect to have high correlation with the tendency of rebalancing toward their target capital structure, and firms that have relatively low growth are expected to have less correlation with the inclination of rebalancing toward their target capital structure. In the real

world, firms that have higher growth or lower book to market value of equity behave as inertly in readjusting their capital structure to the target capital structure.

Table 4.6 shows that there are strong evidence to support the tendency of the positive relationship between the return on asset of the firm and the inclination of rebalancing toward the target capital structure. With this, it confirms that the proportion of the firm's return on asset indicates that firms are more likely to rebound toward their optimal capital structure. The firms with higher return of asset behave less inertly in readjusting their capital structure to predetermined capital structure than the firms with lower return of asset do. This reflects that the magnitude level of the coefficient estimates (β_2) are negatively related with the firm's growing degree of return on asset. The smaller values of (β_2) shows less inclination, and the firms are not willing to take action on their capital structure. Furthermore, the evidence supports the hypothesis which states that the relationship between the return on the asset of the firms and the tendency of rebalancing toward their target capital structure proves to be highly correlated with the inclination of rebalancing toward their target capital structure. Firms that have relatively low return on asset assume to have a minimum correlation with the tendency of rebalancing toward their target capital structure. Under this notion, high-return firms have greater opportunities to approach their sources of capital than the low-return firms do. High-return firms encounter fewer obstacles to obtain capital structure readjustment. As a result, the capital structure readjustments of high-profit firms are more attainable than that of low-profit firm.

4.4 The result of testing the longevity firms spend in rebounding toward the target capital structure

The statistic in Table 4.7 illustrates that companies can not only readjust their capital structure to the set capital structure in the short run, but they are also unsuccessful in returning toward their target capital structure in the immediate and the long run. The inert behavior in readjusting toward the target capital structure proves the results by lasting longer. The coefficient estimates for $IDR_{t,\,t+a}$ reflect that companies are all prone to act less inertly over time in readjusting their capital structure to the target capital structure over the course of four years. Still yet, the pattern of the companies in readjusting their behavior is rather unpredictable. There is no systematic change in the degree of coefficients within the inconsistent pattern of figures (β_2),

Table 4.7

Testing the Longevity Firms Spend in Rebounding toward Their Target Capital Structure

The table presents the result of pool cross-sectional regressions predicting firms' debt ratio using debt ratio lagged by *a* year (total debt divided by total debt plus the market value of equity) with inert debt ratio $IDR_{t,t+a}$ using *a* year raw stock market return to gross up the *a* year lagged debt ratio. In this section, variables IDR and ADR are based on capital structure than just one year ago. IDR is thus relying not on 1-year raw return, but on multiple-year raw returns. The samples lie between periods of 1992 to 2002. The top cell reports coefficient and bottom cell reports t-statistical value. All regressions are ordinary least square.

$$ADR_{t+a} = \alpha_0 + \alpha_1 . ADR_t + \alpha_2 . IDR_{t,t+a} + \partial_t \quad (4)$$

	C	ADR_t	$IDR_{t,t+a}$	R^2	N
2-year	0.1623***	-0.0841	0.6896***	0.4019	1587
	(13.2141)	(-0.9611)	(7.7631)		
3-year	0.1763***	-0.0437	0.6043***	0.3377	1384
	(12.9782)	(-0.3586)	(5.0474)		
4-year	0.1448***	0.1289***	0.5856***	0.3062	1185
	(9.0878)	(2.5844)	(12.8211)		
5-year	0.1049***	-0.0622	0.6750***	0.2519	994
	(3.9285)	(-0.5448)	(6.4280)		
6-year	0.1696***	-0.0277	0.5362***	0.1697	908
	(6.9662)	(-0.5726)	(10.001)		
7-year	0.2432***	0.0044	0.4211***	0.1135	784
	(9.1178)	(0.0327)	(4.1714)		
8-year	0.1937	-0.2699	0.6418***	0.1215	541
	(5.5094)	(-1.2013)	(4.1437)		
9-year	0.2576***	0.0379	0.3466	0.0713	322
	(6.0114)	(0.1088)	(1.5539)		

***indicate coefficient is significantly different from zero at the 0.01 level.

** indicate coefficient is significantly different from zero at the 0.05 level.

* indicate coefficient is significantly different from zero at the 0.1 level.

ranging from 0.4 to 0.8, throughout the duration of this study. So, there is a mild indication on companies rebalancing toward the target capital structure.

If companies are actually to rebound toward their target capital structure, a gradual and constant decrease in coefficient $IDR_{t, t+a}$ will act as a signal. But under the circumstance, a slight increase in the coefficient of ADR_t is presented instead which is inconsistent with the readjustment hypothesis.

The hypothesis states that if a firm rebalances toward the target capital structure, the coefficient (β_1) of ADR_t, representing the firm's capital structure target, expects to be close to one. Simultaneously, the coefficient (β_2) of $IDR_{t, t+a}$, representing the firm's inert behavior in returning toward the target capital structure, should be close to zero. The evidence indicates that there is persistency in the influence of the market returns on firms' capital structure readjustment. Perhaps this is because the period selected has a rapid speed of change on market value flows than the speed of firms' capital structure readjustment. In conclusion, the result is that companies do not readjust their capital structure to the target capital structure in any period as a reaction to the fluctuation of their market value.

4.5 The result of testing the explanatory power of corporate variables and the role of the stock market return in explaining firm's capital structure

The result from table 4.8 presents apparently that $IDR_{t-1, t}$ or stock market return adjusted historical capital structure representing firm's inertia is a prominent role in explaining firm's capital structure at 99 percent significance level. Whereas, the role of other corporate variables, which are firm's growth opportunity and profitability, equity-return volatility and collateral value, become less significant in comparison with the role of stock market return in every one of periods investigated. Because it is remarkable that the magnitudes of coefficient of stock market return adjusted historical capital structure are dramatically greater than the extents of coefficient of other corporate variables in each of all periods. There are only two corporate estimates which are statistically significant in testing between 1992 to 2002 are equity-return volatility and growth opportunity, whereas return on asset and growth opportunity are statistically significant during duration of pre-crisis and post-crisis. Furthermore, the statistical significance level and magnitudes of $IDR_{t-1, t}$ and ADR_{t-1}in this part remain fairly indifferent by comparison with the result displayed

Table 4.8

Testing the Relation between Corporate Variables and Capital Structure Readjustment

The table presents the result of pool cross-sectional regressions predicting firms' debt ratio (total debt divided by total debt plus the market value of equity) with inert debt ratio IDR (where the lagged market value of equity is grossed up by the raw market stock return over the year). However, this table reports pool regression results, including all additional variables. These variables are sorted into four categories which are profitability and growth opportunity (return on asset and book to market value of equity), collateral value (fixed asset/total asset), and volatility (equity-return volatility). The samples are also categorized into two sub periods which are pre-crisis (1992-1996), and post-crisis (1999-2002). The top cell reports coefficient and bottom cell reports t-statistical value. All regressions are ordinary least square.

$$ADR_t = \beta_0 + \beta_1 . ADR_{t-1} + \beta_2 . IDR_{t-1,t} + \beta_3 . EVOL_{t-1} + \beta_4 . ROA_{t-1} + \beta_5 . FXA_{t-1} + \beta_6 . BM_{t-1} + \partial_t \quad (7)$$

	C	ADR_{t-1}	$IDR_{t-1,t}$	$EVOL_{t-1}$	ROA_{t-1}	FXA_{t-1}	BM_{t-1}	R^2	N
92-02	0.1080***	-0.0511*	0.8813***	-0.0795**	-0.0348	-0.0207	-0.0046***	0.6999	2218
	-10.0758	(-1.7405)	-28.9302	(-2.4123)	(-1.1114)	(-1.5267)	(-3.8994)		
92-96	0.1271***	0.4249***	0.5130***	-0.021	-0.1950***	-0.0133	-0.0136	0.7263	787
	-6.694	-4.8527	-6.6036	(-0.2458)	(-3.0667)	(-0.6703)	(-1.4195)		
99-02	0.0297	0.1678*	0.6803***	0.0246	0.0348	0.0019	-0.0045**	0.654	924
	-1.5727	-1.8378	-7.4867	-0.5515	-0.8541	-0.0807	(-2.5370)		

***indicate coefficient is significantly different from zero at the 0.01 level.

** indicate coefficient is significantly different from zero at the 0.05 level.

* indicate coefficient is significantly different from zero at the 0.1 level.

in table 4.2. Their coefficients are significantly different from zero at the 0.01 level. Accordingly, the interpretation result in this section is much rather similar to the explanation discussed earlier. That is firms show no tendency to return to their prior capital structure in response to changing firm value.

A negative sign on return on asset in pre-crisis period exhibits a tendency on negative relationship between firm's return on asset and firm's capital structure at 99 percent significant level. The large negative coefficient estimate for return on asset attribute indicates that firms characterized as having relatively large proportion of earning before interest and tax to value of firm's total asset tend to have low debt ratio. This result is consistent to the previous study of Pecking Order Theory. According to asymmetric information or Pecking Order Theory, firm's capital structure is mainly driven by firm's desire to finance new investments. Managers use up internal fund first, then use up low risk debt, and finally use equity only as a last resort. When firm's profitability ascends, it's also likely to impact the firm's retain earning. Hence, firm has to acquire debt for financing a project and running its company.

A negative sign on equity-return volatility shows a tendency on negative relationship between firm's equity-return volatility and firm's capital structure at 95 percent significant level. The negative coefficient estimate for equity-return volatility attribute indicates that firms characterized as having relatively large proportion of equity-return volatility tend to have low debt ratio due to that source of capital is made more easily accessible to the low equity-return volatility firm than the high risky firm. The debtor with higher risk normally will be compulsively obliged to face harsher lending terms and higher discount rate charged for compensating with firm uncertainty than the debtor with lower risk.

A negative sign on book to market value of equity in after-crisis period presents a tendency on negative relationship between firm's book to market value of equity and firm's capital structure at 95 percent significant level. The negative coefficient estimate for growth opportunity attribute indicates that firms characterized as having relatively large proportion of book value of firm to market value of firm tend to have low debt ratio. This result is consistent with Pecking Order Theory. According to Pecking Order Theory, firms prefer raising capital, first from retained earning, second from debt, and third from issuing new equity. When firm's investment opportunity is so high that internal cash flow for financing is inadequate, firm will demand additional debt for fund raising. Therefore, on the whole, it can be inferred from evidence

that the observed corporate capital structure is primarily driven by stock market influence rather than by managerial responses to other corporate factors aforementioned.

In addition to this, the result confirms the cogency of assumption on the target capital structure. Despite that there is fundamental change taken into consideration, their statistical significances of ADR_{t-1} and $IDR_{t-1,t}$ or the previous year's firm capital structure and the stock market return adjusted historical capital structure stay almost unaltered at 99 percent significant level between before and after adding these corporate variables. Thereby, this implies that the assumption on target capital structure stated earlier is valid and firm's capital structure can be explained by either corporate variables or firm's previous year capital structure (ADR_{t-1}) and stock market return adjusted historical capital structure ($IDR_{t-1,t}$).