# Determinants of Capital Structure and Its Impact on Firm Value on Manufacturing Companies at Indonesia Stock Exchange (IDX) and Thailand Stock Exchange (SET)

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Keywords: Capital Structure, Firm Value, Macro Variabel, Micro Variable.

Abstract: Aims of this study are to analyze the direct effect of macro variables on capital structure and firm value; to analyze the effect of capital structure on firm value, and to analyze the indirect effect of macro and micro variable to firm value through the capital structure as intervening variable. The analysis method is path analysis. Samples are 34 and 39 manufacturing companies in IDX and SET in 2010-2015. Novelty: Makro and mikro variable, Capital Expenditure, Cost of Financial Distress, and path analyst. The result shows that macro variable has no significant effect to capital structure and firm value in IDX and SET, ROA has a significant negative effect to capital structure and have a significant positive effect to firm value. CAPEX has the significant effect on the capital structure and firm value, Non-Debt Tax Shield only have the significant effect on firm value in IDX. NDTS significant effect on capital structure while capital expenditure and asset structure have an effect on Significant to firm value in SET; Capital structure has significantly influences the value of firms in IDX and SET; Inflation, ROA, NDTS, asset structure, CFD has significant influence to firm value through capital structure in IDX, in SET that has significant influence to firm value through capital structure is the exchange rate, NDTS and CFD.

SCIENCE AND TECHNOLOGY PUBLICATIONS

## 1 INTRODUCTION

In 2015 Indonesia and other Asian countries face challenges in the economic sector due to the normalization of China's economic growth, continued slowdowns in the Japanese economy, falling commodity prices, and the possibility of rising US Federal Reserve's benchmark interest rate. The impact of this recession on Asian countries is the interest rate increase the local currency exchange rate against the value of the dollar weakened, so that also affects the price (value) shares weakened. Following the development of economic growth in Southeast Asian countries (Indonesia, Malaysia, Singapore, Thailand, and Philippines) for 5 years (2010-2014).

Table 1: Economic growth of ASEAN countries (Percent/year).

| ASEAN Country | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|
| Indonesia | 6,23 | 6,50 | 6,25 | 5,78 | 5,00 |
| Malaysia | 7,55 | 5,20 | 5,63 | 4,70 | 6,00 |
| Filipina | 7,68 | 3,70 | 6,80 | 7,23 | 6,05 |
| Singapura | 15,40 | 5,30 | 2,50 | 3,85 | 2,90 |
| Thailand | 7,90 | 0,20 | 6,75 | 2,90 | 0,65 |
| average | 8,95 | 4,18 | 5,59 | 3,54 | 4,12 |

From the Table 1, we can see that Indonesia's economic growth continues to decline and Thailand tends to experience a very fluctuating decline.



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Following the inflation rate of Southeast Asian countries for 5 years.

Table 2 Inflation rate of ASEAN countries (Percent/year).

| **ASEAN Country** | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|
| Indonesia | 5,33 | 5,13 | 3,93 | 6,60 | 6,73 |
| Malaysia | 1,73 | 3,23 | 1,55 | 2,30 | 3,03 |
| Filipina | 3,73 | 4,75 | 3,05 | 3,18 | 3,85 |
| Singapura | 3,13 | 5,30 | 4,88 | 2,10 | 0,93 |
| Thailand | 3,23 | 3,68 | 3,28 | 2,03 | 1,73 |
| average | 3,43 | 4,42 | 3,4 | 3,24 | 3,25 |

From the data above that Indonesia's inflation rate tends to increase and Thailand has decreased. With the instability of economic growth and inflation rate, it will affect the condition of corporate financial management that will affect the stock price (firm value).

The goal of a go public company is to maximize shareholder wealth. Increased shareholder wealth is achieved by increasing the value of the company. Jansen (2001) explains that maximizing the value of a firm is a trade-off of a firm's value received over a long period. The firm value will be reflected in the stock price, where the stock price decreases then the firm value will also decrease so that will affect the decrease prosperity shareholders.

Factors affecting firm value are macro and micro factors. Macro factors are seen in economic factors such as inflation, interest rates, exchange rates, economic growth. Micro factors derived from financial management policies, including investment policy, funding policy, and dividend policy. Funding policy is a very important factor in determining the firm value because the funding policy is used for corporate activation activities for the company to run continuously in the future. The funding policy is concerned with determining the right capital structure for the company, the funding decision is how the company determines the optimal funding source to fund various investment alternatives, so as to maximize the firm value reflected in the stock price. The debt usage policy in the capital structure provides a signal or sign to investors that with the company's funding policy affecting firm value (Masdar Mas'ud, 2008: 59). High firm values lead to increased investment and increased capital structure. The optimal capital structure according to Napa I. Awat and Muljadi (2006: 34) is a capital structure that can maximize the market value of the company by minimizing the average cost of capital. Therefore, in order for these conditions to be achieved, it is necessary to consider the variables affecting the capital structure.

The funding decision is related to determining the right capital structure for the company, the funding decision is how the company determines the optimal funding source to fund various investment alternatives, so as to maximize the value of the company reflected in the stock price. The debt usage policy in the capital structure provides a signal or sign to investors that with the company's funding policy affecting firm value (Masdar Mas'ud, 2008: 59). High firm values lead to increased investment and increased capital structure. The optimal capital structure according to Napa I. Awat and Muljadi (2006: 34) is a capital structure that can maximize the market value of the company by minimizing the average cost of capital. Therefore, in order for these conditions to be achieved, it is necessary to consider the variables affecting the capital structure.

The determinants of capital structure (DAR) and firm value (PBV) in this study are: Micro variable (inflation, interest rate, exchange rate, gross domestic product (GDP)) and micro variable (Profitability / ROA, Non Debt Tax Shield / NDTS, Capital Expenditure / Capex, asset structure, Cost of Financial Distress / CFD).

The theory of conventional capital structure (Mayers, 1997; Jensen 1986) states that the firm's optimal capital structure is related to the costs and benefits associated with debt and equity financing. The trade-off Theory, states that a company subject to taxes should increase its debt level to the marginal value of the tax limit from the cost of any possible financial difficulties. The tradeoff theory in capital structure theoretically balances the tax advantages of borrowing to cover the costs of financial difficulties. Another study by Mayers and Majluf, 2001, in Packing Order Theory (POT) is based on asymmetric information problems. Myers and Majluf predict that firms prefer internal financing to finance investments and if they use external funding it will use debt in advance of equities.

Profitability is a variable affecting the capital structure. In this research, profitability is represented by Return On Assets (ROA), that is by comparing net income with total assets of company. According

to Weston and Brigham (2001:713), firms with high ROA, generally use relatively small amounts of debt. This is due to the high return on assets, allowing the company to capitalize with retained earnings only. This research has been done by Deesomsak, et al (2004), Delcoure (2006) and Huang & Song (2006) which resulted that profitability negatively affect the capital structure. However, not only that, another assumption says that high return on assets means that the company's net profit is high, so if the company uses large debt it will not affect the capital structure, because the company's ability to pay interest is also high. High returns make it possible to finance most of the funding needs with internally generated funds. It has also been conducted empirical research by Titman (1988), Moh'd (1998), Ekstrom and Kanaporyte (2015), and Hossain (2015) which shows that profitability has a positive effect on the company's capital structure.

The theory proposed by Weston and Copeland (1999: 35) sales growth is a variable affecting the capital structure. Brigham and Houston (2004: 39) also say that firms with relatively stable sales can be safer to get more loans and bear a higher fixed burden than companies with unstable sales. Empirical research by Krishnan (1996), Badhuri (2002), Mohamad (1998), and Majumdar (1999) indicate that the growth of sales (growth of sales) is one variable that affect the capital structure of the company. The higher the asset structure the higher the capital structure means the greater the fixed assets that can be used as debt collateral by the company. Conversely, the lower the asset structure of a company, the lower the ability of the company to be able to guarantee its long-term debt. This is in accordance with the theory of Weston and Brigham (2001: 713), that firms that have assets as debt collateral tend to use larger amounts of debt. Assets referred to as collateral for debt are fixed assets.

Financial Distress is a condition where companies are experiencing financial difficulties and are threatened with bankruptcy. If the company goes bankrupt, there will be bankruptcy costs incurred by: the forced selling of assets below market prices, the cost of corporate liquidation, the destruction of fixed assets eaten before selling, etc. These costs include Direct Cost of Financial Distress. In general, the likelihood of occurring financial distress increases with the increasing use of debt. Cost of Financial Distress is the variability of earnings and can be a measure of a company's business risk, then the prospective creditor tends to lend to companies that have relatively stable earnings. The higher the company's earning variability, the lower the company's debt utilization. Research Chen (2004) found a not significant relationship between financial distress and laverage.

Tax Shields Effects by using Non-Debt Tax Shield (NDTS) is the amount of non-cash costs that lead to tax savings and can be used as capital to reduce debt. The tax savings can come from depreciation and amortization. Depreciation and Amortization are non-cash expenses, so the greater the depreciation and amortization the greater the income tax savings. Thus the tax rate and debt to equity ratio are hypothesized to have a positive relationship, this is in line with Trade Off Theory. Research conducted by Chen (2004) and Akhtar (2005) shows a non-significant relationship between Non-Debt Tax Shield and laverage.

Capital Expenditure (CAPEX) is a cost or fund intended to benefit future periods and is reported as an asset (Carter and Usry, 2002: 539). Assets here are assets that have long-term benefits. According to the Financial Accounting Standards (SAK) of 2015 states that fixed assets are tangible assets acquired in ready-to-use or pre-built form, used in company operations, not intended for sale in the framework of the normal activities of the enterprise and have a benefit of more than one year . Jansen (1989) in his research argues that the more cash available the more investors will invest.

Not much research on the influence of capital expenditure and cost of financial distress on capital structure and firm value. There is no consistency from previous researchers about inflation variables, interest rates, exchange rates, GDP, profitability, firm size, asset structure, and NDTS on the capital structure and firm value. No research has been found to compare the manufacturing firms listed on the Indonesia Stock Exchange (IDX) and the Thai Stock Exchange (SET) from external and internal factors to the capital structure and firm value.

# 2 RESEARCH METHODS

## 2.1 Conceptual Framework

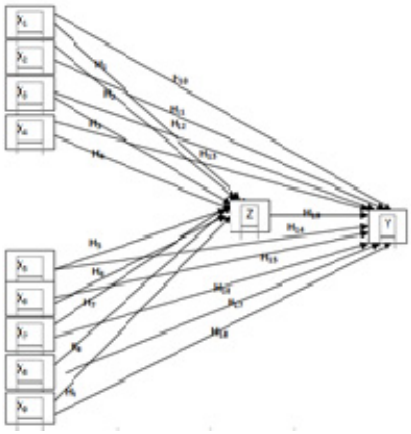

Figure 1: Conceptual framework.

## 2.2 Hypothesis

Hypothesis in this research as follows:

### 2.2.1 Inflation Influence on Capital Structure and Firm Value

Understanding Inflation according to some sources are: Inflation is a price increase continuously (Joel G Siegel, 1999: 253). According to Ibbotson and Brinson (1993: 241) say inflation is a sustained increase in the general price level over time. Thuesen and Fabrycky (2001: 125) say that inflation and deflation are conditions that describe changes in price levels in an economy. Furthermore Yuswar and Mulyadi (2003: 21) say inflation is a state of monetary value declined openly due to price increases of goods. Some definitions can be concluded that inlasi is a state of decline in the value of a country's currency and the rising prices of goods that take place systematically. The definition can be understood that inflation is a dangerous condition for the economics of a country. The high inflation will decrease people's purchasing power on goods and services, so that the economy of a country will deteriorate which will result in decreasing profit level of the company and will result in the movement of stock price becomes less competitive. So that inflation will affect the capital structure and firm value.

Influence Inflation on Capital Structure. Research conducted by Aris and Giorgi (2014), Riana (2014), Natalia Makhova (2014) states that inflation has a significant influence on capital structure. Hypothesis in this research are:

H1: Inflation has a significant influence on capital structure.

Influence Inflation on Firm Value. Research conducted by Eduardus (1997), Dewi (2001), Siti (2004), (Bambang S (2010) that inflation has a significant influence on the firm value because the higher the inflation will be lower the firm value. Hypothesis in this study are:

H2: Inflation has a significant influence on firm value.

### 2.2.2 Influence of Interest Rate on Capital Structure and Firm Value

The interest rate used is the interest rate of Bank Indonesia. Interest rates are an important factor in making investment decisions, as interest rates can be used as a barometer of costs as well as income for businesses. Increasing interest rates will cause prices to rise so will affect the structure of capital and firm value.

Influence of Interest Rate on Capital Structure. Research conducted by Taoulaou and Giorgi Burchuladze (2014), Natalia Mokhova (2014) states that interest rates have a significant influence on capital structure. Hypothesis in this research are:

H3: Interest rates have a significant influence on the structure capital.

Influence of Interest Rate on Firm Value. Research conducted by Suryanto (1998), Sudjono (2002) states that interest rates have a significant influence on the firm value. Hypothesis in this research are:

H4: Interest rates have a significant influence on firm value.

### 2.2.3 Effect of Exchange Rate on Capital Structure and Firm Value

The exchange rate used is the Rupiah exchange rate against the US Dollar. A strong exchange rate indicates that the value of the rupiah appreciates or rises against the dollar ($), and vice versa. The exchange rate represents the foreign sector in affecting the company's capital structure and firm value. The higher the value of the rupiah against the dollar (exchange rate) the higher the capital structure the lower the firm value.

Effect of Exchange Rate on Capital Structure. Research conducted by Ana Mufida (2012) states

that the exchange rate has a significant influence on capital structure. Hypothesis in this research are:

H5: Exchange rate has an influence on capital structure.

Effect of Exchange Rate on Firm Value. Research conducted by Sudjono (2002), Siti (2004), Robiatul and Ardi (2006), and Achmad ATH Thobarry (2009) stated that the exchange rate has a significant influence on firm value. Hypothesis in this research are:

H6: Exchange rate has a significant influence on firm value.

### 2.2.4 Influence of GDP on Capital Structure and Firm Value

GDP (Gross Domestic Product) is a barometer of economic growth. If economic growth increases / high, then an indication that the prospect of investment is good. Economic growth with firm value will move in the same direction as increasing economic growth will be caught as a signal of increased investment activity so that the firm value will increase.

Influence of GDP on Capital Structure. Research conducted by Ana Mufida (2012) states that GDP has a significant influence on capital structure Hypothesis in this study are:

H7: GDP has a significant influence on capital structure.

Influence of GDP on Firm Value. Research conducted by Nieuwerburgh (2005) and Robiatul and Ardi (2006) states that GDP has a significant influence on firm value. Hypothesis in this research are:

H8: GDP has a significant influence on firm value.

### 2.2.5 Effect of ROA on Capital Structure and Firm Value

Return On Assets (ROA), according to Weston and Brigham (2001: 713) companies with high levels of profitability (ROA), generally use a relatively small amount of debt. This is due to high profitability (ROA) is possible for companies to capitalize with retained earnings only. The greater the retained earnings the greater the need for funds being met from within the enterprise, and reducing the use of funds from debt, which will further reduce the company's capital structure. Packing Order Theory, states that the sequence of funding in the capital structure is retained earnings, debt, and stocks emissions. Based on Packing Order Theory, profitability (ROA) has a negative effect on capital structure. The more efficient the financing and the maximum the investment the higher the profit earned. The higher the profit the higher the stock price, meaning profitability has a positive effect on the firm value.

Effect of Profitabiltas on Capital Structure. The results of research conducted by Mayangsari (2000), Deesomsak, et al (2004), Kartini and Arianto (2007), Naomech (2012), Md Faruk Hosain and Prof. Dr.Md.Ayub Ali (2012) Alam (2013), Akinyomi (2013), Safitri (2014), Pedro Proenca, at al (2014), Anshu Handoo and Kapil Sharma (2014), and Shirley Chen Ye Ekstrom and Indre Kanaporyte (2015), stated that Profitability has a significant influence on capital structure. Hypothesis in this research are:

H9: ROA has a significant influence on capital structure.

The Effect of Profitability on Firm Value. The results of research conducted by Sari (2005), Sri Hermuningsih (2013), and Safitri (2014), states that profitability has a significant influence the firm value. Hypothesis in this research are:

H10: ROA has a significant influence on firm value.

### 2.2.6 Effect of Tax Shields on Capital Structure and Firm Value

Tax Shields measured by Non-Debt Tax Shield (NDTS) indicate the availability of internal funds derived from tax savings on depreciation and amortization. The higher the NDTS the lower the debt, meaning the NDTS has a significant effect on the capital structure. The higher the NDTS, the greater the source of internal funds, mean NDTS has a significant effect on the firm value.

The Effect of Tax Shields on Capital Structure. The results of research conducted by Deesomsak (2004), Akinyomi (2013), Anshu Handoo (2014), DR.R.Kavitha (2014), Siti Salimah Hussain and Hassan Miras (2015), and Shirley ChenYe Ekstroom and indre Kanaporyte (2015) . states that NDTS has a significant influence on capital structure. Hypothesis in this research are:

H11:NDTS has a significant influence on capital structure

The Effect of Tax Shields on Firm Value. The results of research conducted by Deesomsak (2004), Anshu Handoo (2014), states that NDTS has a significant influence on firm value. Hypothesis in this research are:

H12: NDTS has a significant influence on firm value.

### 2.2.7 Effect of Capital Expenditure on Capital Structure and Firm Value

Jansen (1989) in his research argues that the more cash available the more investors will invest regardless of whether the investment is good or bad. If the company's capital expenditure gets bigger then the capital requirement of the company will also be bigger to fulfill the requirement so that company will seek fund from outside, so will increase laverage company. So the higher the capital expenditure will increase the debt of the company, the capital expenditure has a positive influence on capital structure and firm value.

The Influence of Capital Expenditure on Capital Structure. The results of research conducted by Boodhoo Roshan (2009), states that Capital Expenditure has a significant influence on capital structure. Hypothesis in this research are:

H13: Capital Expenditure has a significant influence on capital structure

The Influence of Capital Expenditure on Firm Value. The results of research conducted by Coles, et al (2004), Desak and Ni Wayan (2007), Sarpi (2009), Rahmiati and Widya Sari (2013), stated that Capital Expenditure has a significant influence on firm value. Hypothesis in this research are:

H14: Capital Expenditure has a significant influence on firm value.

### 2.2.8 Effect of Asset Structure on Capital Structure and Firm Value

Increased The asset structure means that the firm's fixed assets will increase, resulting in working capital and the ability of the company to meet its maturing corporate liabilities to decrease so that the company will need capital from the stock as a result the firm value will decrease.

Influence of Asset Structure to Capital Structure. Research conducted by Anastasia, Gunawan, and Wijaya (2011), Mayangsari (2000), Naomech (2012), Akinyomi and Olagunju (2013), Anshu Handoo (2014), Pedro Proenca, et al (2014), Aris Taoulaou and Giorgi Burchuladze (2014), Siti Salimah Hussain and Hassan Miras (2015), and Shirley ChenYe Ekstroom and the Kanaporyte indre (2015). states that the Structure of Assets has a significant influence on capital structure. Hypothesis in this research are:

H15: The structure of the asset has a significant influence on the structure capital

Effect of Asset Structure on Firm Value. Research conducted by Anastasia, Gunawan, and Wijaya (2011), states that the Asset Structure has a significant influence on the firm value. Hypothesis in this research are:

H16: Asset Structure has significant influence on firm value.

### 2.2.9 Influence of Cost Financial distress on Capital Structure and Firm Value

The earning variability can be a measure of a company's business risk, so prospective creditors tend to lend to companies that have relatively stable earnings. Thus the higher the earning variability of a company, the lower the debt utilization by the company. So Cost Financial distress has a significant influence on capital structure and firm value.

Influence of Cost Financial distress on Capital Structure. Research conducted by Ratnawati (2001), Chen (2004), Teddy (2005) states that Cost Financial distress has a significant influence on capital structure. Hypothesis in this research are:

H17: Cost Financial distress has a significant influence on capital structure.

The Influence of Cost Financial distress on Firm Value. Research conducted by Chen (2004), states that Cost Financial distress has a significant influence on the firm value. Hypothesis in this research are:

H18: Cost Financial distress has a significant influence on the firm value.

### 2.2.10 Effect of Capital Structure on Firm Value

The capital structure in influencing firm value is reinforced by Modigliani-Miller (MM) theory assuming there is a tax. This theory according to Luke (2003: 259) states that "MM concludes the use of debt (laverage) will increase the firm value because the cost of debt interest is the cost that reduces tax payments (a tax deductible expense). Increase in the value of perisahaan occurs because of the cost of debt interest that reduces tax payments, so the operating profit becomes the investor's rights will be greater. So an increase in debt along with an increase in capital structure will increase the value of the firm. This research is supported by Masdar researchers (2008) and Rahmawati (2013). So that can be formulated hypothesis as follows:

H19: The capital structure has a significant influence on the firm value.

Sample selection using proposive sampling with criteria active company (providing financial statements) in trading on stock exchanges in

Indonesia and Thailand during 2011-2015; Manufacturing companies do not perform Stock Splite during 2011-2015 on the Indonesia Stock Exchange (IDX) and Stock Exchange Thailand (SET).

Test the hypothesis using path analysis, the equation:

$$Z = \rangle_{zx1}X_1 + \rangle_{zx2}X_2 + \rangle_{zx3}X_3 + \rangle_{zx4}X_4 + \rangle_{zx5}X_5 + \rangle_{zx6}X_6 + \rangle_{zx7}X_7 + \rangle_{zx8}X_8 + \rangle_{zx9}X_9 + \varepsilon_1 \quad (1)$$

$$Y = \rangle_{yx1}X_1 + \rangle_{yx2}X_2 + \rangle_{yx3}X_3 + \rangle_{yx4}X_4 + \rangle_{yx5}X_5 + \rangle_{yx6}X_6 + \rangle_{yx7}X_7 + \rangle_{yx8}X_8 + \rangle_{yx9}X_9 + \rangle_{yz}Z + \varepsilon_2 \quad (2)$$

Caption:

$Z$ = Capital structure, $Y$ = Firm Value
$X_1$ = inflation, $X_2$ = rate of interest
$X_3$ = exchange rate, $X_4$ = PDB
$X_5$ = ROA, $X_6$ = NDTS
$X_7$ = CAPEX, $X_8$ = Asset structure
$X_9$ = Cost of Financial Distress
$\varepsilon_{1,2}$ = errors

## 2.3 Operational Definition

The capital structure measured by Total Debt to Total Assets, is how much of the total assets are provided to guarantee the corporate debt. The measurement scale uses the ratio. The value of the firm is measured by Price to Book Value (PBV). PBV is the ratio of market price per share at a closing price to book value per share. The measurement scale uses the ratio.

Inflation, is the relative real value of changes in the prices of goods on the market. Inflation was measured by the inflation rate in each country during the study period. The measurement scale uses the ratio. The interest rate, the real interest rate or the risk-free interest rate is the policy interest rate of the central bank. Measurement scale using ratio. The exchange rate is the real conversion value of money (Rupiah and Bath) against US Dollar. This study uses the exchange rate measured by the real spot exchange rate of Indonesian Rupiah (IDR) and Bath (THB) against US dollar. The measurement scale uses the ratio.

Gross Domestic Product, Economic growth is a change in the value of real Gross Domestic Product (GDP). Economic growth is measured by changes in real GDP over at constant prices. The measurement scale uses the ratio. Profitability is measured by Return on Assets (ROA), i.e. the company's ability to profit from the assets that have been invested in the company's business for one year. The measurement scale uses the ratio.

No Debt Tax Shields is the availability of internal funds derived from tax savings on depreciation and amortization. The scale of measurement uses the ratio. Capital Expenditure is the capital spent on financing the company's assets for corporate investment purposes. The measurement scale uses the ratio.

Asset Structure is how much-fixed assets dominate the composition of company-owned company's wealth. The measurement scale uses the ratio. Cost of Financial Distress is the risk that will be faced by the company due to variable profit before tax of the company to earnings before interest and tax with profit before tax. Scale measurement using the ratio.

# 3 THEORIES

## 3.1 Agency Cost

Agency Cost is a cost incurred because the company uses debt and involves a relationship between the owner of the company and the creditor. If a company uses debt, it is possible that the company owner is doing harmful actions, such as investing in high-risk projects. The cost of bankruptcy there is two that is directly and indirectly. Direct costs are cash issued in relation to bankruptcy administration and proceedings. Indirect costs are costs associated with the bankruptcy process but not in the form of cash disbursements.

## 3.2 Trade-Off Model

Consider financial distress and agency Cost into the MM model with taxes. The use of debt will increase the firm value but only to a certain point. After that point, the use of debt will actually lower the value of the company because the increase in profit from the use of debt is not comparable with the increase in the cost of financial distress and agency Cost.

## 3.3 Asymmetric Information Theory

Asymmetric information is a condition in which a party has more information than the other (Donaldson, 1950). Asymmetric information, company management knows more about the company than investors in the capital market. Gardon Donaldson concludes that the company prefers to use funds in order of retained earnings, Debt, and Sale of new stocks.

## 3.4 Pecking Order Theory

Pecking order theory is a mechanism for selection of funding sources related to the transaction cost issue of new external funding sources. This theory plays an important role in the capital structure of the company. The company's capital structure policy in the determination of funds is related to the determination of the best balance in terms of internal and external funding sources. Meeting the needs of internal sources relates to performance and financial ratios while the fulfilment of external sources is related to inflation, exchange rate, interest rate, economic growth and asymmetric information.

## 3.5 Firm Value

Firm value describes how management manages corporate wealth that can be seen from the measurement of financial performance. According to Mariano (2012: 40), the value of stock price is the most commonly used as an indicator in assessing the firm value, because the value of the stock price is considered to represent the performance of the company. The increase in firm value is marked by an increase in stock prices in the market. The high of the firm value will be followed by an increase in shareholder value.

# 4 RESULTS

Using purposive sampling, sample manufacturing firms at IDX is 34 of 143companies, and at SET there are 39 of 127 companies. The result of linearity test, all variables show linear correlation. There is multicollinousas exchange rate and GDP in IDX, inflation and interest rate in SET, so that variable is eliminated from the model.

## 4.1 Hypothesis Testing Manufacturing Companies in IDX

Table 3: Test Results Hypothesis Model Direct Influence on Manufacturing Companies in IDX.

| Relevancy between variables | | Path Coefficient | *ρ-value* | Evidence |
|---|---|---|---|---|
| Inflation (X1) | Capital Structure (Z) | -0,032 | 0,805 | No Significant |
| Interest rate(X2) | Capital Structure (Z) | 0,050 | 0,700 | No Significant |
| ROA (X3) | Capital Structure (Z) | -0,301 | 0,034** | Significant |
| Tax Shield (X4) | Capital Structure (Z) | -0,078 | 0,347 | No Significant |
| CAPEX (X5) | Capital Structure (Z) | 0,234 | 0,006*** | Significant |
| Asset Structure (X6) | Capital Structure (Z) | 0,023 | 0,793 | No Significant |
| Cost of Financial Distress (X7) | Capital Structure (Z) | 0,080 | 0,317 | No Significant |
| Capital Structure (Z) | Firm Value(Y) | -0,127 | 0,015** | Significant |
| Inflation (X1) | Firm Value(Y) | -0,014 | 0,868 | No Significant |
| Interest rate(X2) | Firm Value(Y) | 0,130 | 0,130 | No Significant |
| ROA (X3) | Firm Value(Y) | 0,678 | 0,000*** | Significant |
| Tax Shield (X4) | Firm Value(Y) | -0,226 | 0,000*** | Significant |
| CAPEX (X5) | Firm Value(Y) | 0,126 | 0,029** | Significant |
| Asset Structure (X6) | Firm Value(Y) | -0,026 | 0,658 | No Significant |
| Cost of Financial Distress (X7) | Firm Value(Y) | -0,037 | 0,481 | No Significant |

Table 4: Indirect Effect of Manufacturing Companies at IDX.

| Variable | Direct | Indirect | Total | Conclusion |
|---|---|---|---|---|
| Inflation (X1) | -0,014 | 0,00406 | -0,00994 | Capital Structure as variable intervening |
| Interest rate(X2 | 0,130 | -0,00635 | 0,12365 | Capital Structure not as variable intervening |
| ROA (X3) | 0,678 | 0,03823 | 0,71623 | Capital Structure not as variable intervening |
| Tax shields (X4) | -0,226 | 0,00991 | -0,21609 | Capital Structure as variable intervening |
| CAPEX (X5) | 0,126 | -0,02972 | 0,09628 | Capital Structure not as variable intervening |
| Asset Structure (X6) | -0,026 | -0,00292 | -0,02892 | Capital Structure as variable intervening |
| Cost of Financial | -0,037 | -0,01016 | -0,04716 | Capital Structure as |

| | | | | |
|---|---|---|---|---|
| Distress (X7) | | | | variable intervening |

The result of the determination $R^2_M$ is 71%, meaning that the diversity of the data can be explained by the model described and the sizes of 29% explained by other variables outside the study.

## 4.2 Hypothesis Testing Manufacturing Companies in SET

Table 5: Test Results Hypothesis Model Direct Effect on Manufacturing Companies in SET.

| Relevancy between variables | | Path Coeff. | *ρ-value* | Evidence |
|---|---|---|---|---|
| Exchange rate (X1) | Capital Structure (Z) | 0,102 | 0,123 | No Significant |
| PDB (X2) | Capital Structure (Z) | 0,104 | 0,116 | No Significant |
| ROA (X3) | Capital Structure (Z) | -0,515 | 0,000*** | Significant |
| Tax Shield (X4) | Capital Structure (Z) | 0,122 | 0,090* | Significant |
| CAPEX (X5) | Capital Structure (Z) | 0,062 | 0,408 | No Significant |
| Asset Structure (X6) | Capital Structure (Z) | 0,051 | 0,550 | No Significant |
| Cost of Financial Distress (X7) | Capital Structure (Z) | -0,052 | 0,424 | No Significant |
| Capital Structure (Z) | Firm Value (Y) | -0,404 | 0,050** | Significant |
| Exchange rate (X1) | Firm Value (Y) | -0,070 | 0,374 | No Significant |
| PDB (X2) | Firm Value (Y) | 0,008 | 0,921 | No Significant |
| ROA (X3) | Firm Value (Y) | 0,268 | 0,003*** | Significant |
| Tax Shield (X4) | Firm Value (Y) | -0,071 | 0,408 | No Significant |
| CAPEX (X5) | Firm Value (Y) | 0,903 | 0,007*** | Significant |
| Asset Structure (X6) | Firm Value (Y) | 0,248 | 0,016** | Significant |
| Cost of Financial Distress (X7) | Firm Value (Y) | -0,041 | 0,599 | No Significant |

Table 6: Testing Indirect Effect on Manufacturing Companies in SET.

| Variable | Direct | Indirect | Total | Conclusion |
|---|---|---|---|---|
| Exchange rate (X1) | -0,070 | -0,04121 | -0,11121 | Capital Structure as variable intervening |
| PDB (X2) | 0,008 | -0,04202 | -0,03402 | Capital Structure not as variable intervening |
| ROA (X3) | 0,268 | 0,20806 | 0,47606 | Capital Structure not as variable intervening |
| Tax shields (X4) | -0,071 | -0,04929 | -0,12029 | Capital Structure as variable intervening |
| CAPEX (X5) | 0,903 | -0,02505 | 0,87795 | Capital Structure not as variable intervening |
| Asset Structure (X6) | 0,248 | -0,02060 | 0,22740 | Capital Structure not as variable intervening |
| Cost of Financial Distress (X7) | -0,041 | 0,02101 | -0,01999 | Capital Structure as variable intervening |

The result of coefficient of determination: R2M equal to 67%, meaning that the diversity of the data can be explained by the model described, while the rest of 33% is explained by other variables outside the research.

# 5 DISCUSSION

Inflation has no effect on the capital structure and firm value in IDX. This is because the company believes that the government will continue to control the country's inflation, so inflation does not affect the debt and stock price of the company. This study supports Ekstrom's research (2015).

Interest rates have no significant effect on the capital structure and firm value. High-interest rates will lead to the high risk that leads to financial distress. In accordance with the trade-off model that theoretically balances the tax advantages of lending (debt) to cover the financial difficulties. This study supports Ekstrom's research (2015).

Interest rates do not affect the value of the firm; it indicates that the change of interest does not cause changes in the firm value. The results support research from George (2008).

The exchange rate does not affect the capital structure and firm value in SET. Changes in the

exchange rate did not because a change in the value of the firm since the company in Thailand used the bath currency in its operations. The results support the study of Taoulaou (2014).

GDP does not affect the capital structure and firm value in SET. If economic growth rises / high, then an indication that the prospect of investment is good. Economic growth with firm value will move in the same direction as increasing economic growth will be caught as a signal of increased investment activity so that the firm value will increase. This study supports Ekstrom's research (2015).

ROA in IDX and SET shows that ROA has the negative and significant effect on capital structure. The results of this study are consistent with the Packing Order Theory, Myers (1984) states that in conducting a funding policy the company prioritizes the use of retained earnings, then the use of debt and new stock emissions. This study supports the research of Pendy (2001), Nagano (2003), Deesomsak, at.al (2004), Delcoure (2006), Huang & Song (2006), Eni Safitri (2012), and Md Faruk H (2012). ROA has a positive and significant impact on the firm value in IDX and SET. The greater the profitability, the higher the stock price in the firm value. This study supports the research of Titman and Tsyplakov (2005).

Non-Debt Tax Shields have no significant effect on capital structure in IDX. Not influencing NDTS shows that the value of depreciation and amortization of existing companies in Indonesia is not enough to increase the company's cash flow so it is not taken into account in reducing the proportion of debt. This study supports the research of Chen (2004) and Akhtar (2005). The results of the SET study show that NDTS has a positive and significant effect on capital structure. This indicates that the increase in NDTS can be used as a substitute for debt. This study supports the research of Delcour (2006), and Md Faruk H (2012). NDTS has a negative and significant effect on the value of the company in IDX. This indicates that the greater the depreciation and amortization the greater the tax savings so that the greater the accumulation of resources will increase the firm value. This study supports Deesomsak's research (2004), and Anshu Handoo (2014). NDTS has no significant effect on firm value in SET. This indicates that the amount of depreciation and amortization is not significant enough to increase the company's cash flow so as not to affect the firm value.

The result of research in Indonesia shows that CAPEX has the significant effect on capital structure. The bigger the CAPEX the greater the capital requirement of the company to meet its needs, so that the company will seek funds from outside that is by adding debt. This study supports the research of Boodhoo Roshan (2009). The result of research in SET shows that CAPEX has no significant effect on capital structure. This is because in Thailand in enlarging its fixed assets using internal funds of the company. The results of research on IDX and SET shows CAPEX has a significant influence on firm value. The more long-term investments (fixed assets) that provide benefits in the future will increase the stock price or firm value. This research supports the research of Coles, et al (2004), Desak and Ni Wayan (2007), Sarpi (2009), Rahmiati and Sari (2013).

The asset structure has no significant effect on capital structure in IDX and SET. No effect on the structure of assets on the capital structure because of manufacturing firms in Indonesia and Thailand because most of the fixed assets except land is already on the watch in insurance or companies prefer margins to minimize risk. So the size of the company's asset structure does not affect the debt. This study supports Nagano's (2003) and Taou you (2014) research. The results of the research on IDX show that the asset structure has no significant effect on firm value. This result is not in accordance with the hypothesis that predicts the greater the asset structure the higher the value of the firm. This research supports Solechan's research (2009). The number of tangible fixed assets is not a prospect to increase the firm value but stock holders in investing capital will look at the prospect of companies that earn a promising profit, thereby increasing the firm value. While in Thailand, the asset structure has a significant influence on the firm value. This research supports the research of Fama (1978) and Harmuningsih (2013).

The results of research on IDX and SET shows CFD has no significant effect on capital structure. This indicates that with the use of debt in the capital structure is not affected by financial risk, it can be said that debt to manufacturing companies in Indonesia and Thailand is still at a level that can be controlled by the company. This study supports the research of Chen (2004), Teddy (2005). The results of the research at IDX and SET show that CFD has no significant effect on firm value. This indicates that the use of debt can still be controlled with the benefits obtained by the company so as not to affect the firm value.

The results of the research on IDX and SET shows the capital structure has a negative and significant effect on firm value. Negative influence

means that the higher the capital structure will be the smaller the firm value, so in accordance with the packing order theory. This research supports the research of Masdar (2008) and Rahmawati (2013).

# 6 CONCLUSIONS

Based on the results of research that has been done can be concluded that:

1. Macro factors manufacturing companies in Indonesia and Thailand have no effect on the capital structure and firm value. Profitability, CAPEX has the significant effect on capital structure, while NDTS, asset structure, and CFD have no significant effect on capital structure in IDX. Profitability, NDTS has a significant effect on capital structure, while CAPEX, asset structure, and CFD have no significant effect on capital structure in SET. ROA, NDTS, CAPEX have the significant influence on firm value, while asset structure and CFD have no significant effect on firm value at IDX. Profitability, CAPEX, asset structure have an effect on significant to firm value, while tax shields and cost of financial distress have no significant effect on firm value in SET.
2. The capital structure directly affects the IDX and SET.
3. Inflation, NDTS, asset structure has a significant effect on firm value if it is mediated by the capital structure in IDX. The exchange rate, NDTS, CFD has a significant effect on firm value if it is mediated by the capital structure in SET.
4. Further research development can be conducted on companies other than manufacturing companies; external variables plus political variables, technology, etc.; period may be more than 5 years; and research objects developed for example researching all ASEAN countries.

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