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FINANCIAL PERFORMANCE AND VALUATION ANALYSIS OF PT INDOMOBIL SUKSES INTERNASIONAL TBK AND TAN CHONG MOTOR HOLDINGS BERHAD

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Abstract- According to Bank Indonesia's 2012 annual report, Indonesia's household consumption and investment have been relatively high which have created a market opportunities fir domestic industry, in particular for automobile industry. Automobile industry has experienced a growth rate of 10% from 2012 to 2013, which was the highest growth percentage of automobile industry in Southeast Asia. Currently, one of the biggest players in Indonesia automobile industry is Indomobil (PT IMAS), which was established in 1976. Tan Chong, a Malaysia based automobile company is chosen to be the peer firm, due to its similar characteristics and the comparable market condition with Indomobil's. This thesis examines the financial performance of PT IMAS and Tan Chong from 2009 to 2014 using several method such as industry, Compound Annual Growth Rate (CAGR), cross-section analysis, DuPont formula analysis. This research also values those two companies using established valuation approaches such as relative multiple and discounted free cash flow model. Financial performance analysis shows that PT IMAS have been struggling while Tan Chong also came underperformed as shown by the unfavorable 2014 performance for both companies. This is due to competitive market environment and higher cost attributed to rough exchange rate condition. Multiple valuation and discounted cash flow models show that PT IMAS and Tan Chong overvalued. Therefore it is suggested that investors are advised to take caution on their investment decision on PT IMAS and Tan Chong and they are recommended to sell their shares in those company.

Keywords: Automobile industry, financial performance, financial ratios, DuPont formula, Valuation

Introduction

Indonesia economic growth is forecasted to be positive according to bank indonesia report (Bank Indonesia, 2012). So it is with automotive industry. Based on the 2013 data from ASEAN Automotive Federation, sales of automobile in Indonesia are having 10% growth from the year 2012 to 2013. Furthermore, Ministry of Industry reported automotive sector contribution to domestic economy from taxes about IDR 250 trillion in year 2012, increased from IDR 80 trillion in 2010, according to Bisnis Indonesia. The number forecasted to be increased due to massive investment from automotive producer in terms of product and component.

PT Indomobil Sukses Internasional Tbk. (PT IMAS) is Indonesia based manufacturing company. The company business is in automotive industry and established in 1976 as a result of unification between two companies, PT Indohero and PT Indomobil. The company and many its subsidiaries are having business in automotive manufacturing, vehicle assembly, sales distribution, after sales service, spare part distribution, other automotive related supporting services, and vehicle ownership financing. PT IMAS is well known as brand owning sole agent and owning the right to sell many big international automotive reputation brand in Indonesia. Audi, Suzuki, Nissan, Renault, Volkswagon, Volvo, Cherry, and Hino are some example of international brand who cooperate with PT IMAS to market

their product in this country. The product is not limited to four wheels vehicles only, they also having their way with two wheels vehicle, not to mention buses, trucks, and other heavy equipment.

Literature Review

Financial Statement Analysis

Financial performance analysis is a method to measure a firm's policies and operation on using its asset to generate revenues in a specific period of time. The measurement is based on financial statement of the company within a short-term time range. The result from financial performance analysis could determine the characteristic and financial health of the firm itself. There are four key elements to determine a firm's performance based on financial statement, which is: balance sheet, income statement, statement of cash flow, and the statement of stakeholder's equity. Nevertheless, there are only three financial reports which included in this research, balance sheet, income statement, and statement of cash flow. According to Sharma (2012) balance sheet, income statement, and sattement of cash flow are the basic and crucial part from financial statement which capable to intrepret the quantitative data's of the firm's performance.

Financial Ratios

Financial ratios provide information regarding one firm's financial situation and relative measurement based on financial statement. Ratio analysis is used to determine several aspects of firm's performance regarding financial and operation such as profitability, efficiency, and liquidity. It can also be used as a comparison to indicate such a strength or weakness from one company from another. Salmi and Martikainen (1994) used the financial ratios not only for forecasting future success of companies, they also researched the estimation of internal rate of return from financial statement. The financial ratios included on this research are : profitability ratios, activity ratios, liquidity ratios, inventory turnover ratios, debt/equity ratios, and return on investment ratios based on a study about automotive industry from Sharma (2012) which describe clearly about evaluating performance and taking financial ratios into consideration.

Cross Sectional Analysis

Cross-section analysis compares the financial ratios of one company to its competitor within the same industry at the same time range. The comparison result will show which company have better performance within the industry. It also indicate strength and weakness from both firms, making the better one as a benchmark to analyze how to achieve a greater performance level using the information provided and making an improvement.

Times-series Analysis

Time-series analysis compares one firm's financial performance annually, between any other times of the years to its past years. One benefit of using time-series analysis is to be able to calculate a firm's growth over time. To measure and calculate the growth, Compound Annual Growth Rate (CAGR) is used most of the time. The CAGR is the geometric mean of the company's growth rates for certain period of time.

$$\mathrm{CAGR}\,(t0, tn) = (V(tn)/V(t0))^{\frac{1}{tn-t0}} - 1$$

Equation 1: CAGR

Profitability Ratio

Gross Profit Margin (GPM)

The first profitability ratios is gross profit margin (GOM), which accroding to Gitman (2012), is the ratio needed to calculates the percentage of each dollar remaining after the firm's paid off the expenses for the goods or services they provide.

$$Gross\ Profit\ Margin = \frac{(Sales - COGS)}{Sales}$$

Equation 2: Gross Profit Margin

Operating Profit Margin

Where GPM only examine the cost of good sold, operating profit margin takes it up to analyze the percentage of the firm's operating income. Gitman (2012) says in his book, that operating profit margin useful for measuring the percentage of each dollars from revenue remaining after financing the operating expenses other than taxes, interest, and dividends.

$$\text{Operating Profit Margin} = \frac{\text{Operating Profits}}{\text{Sales}}$$

Equation 3: Operating Profit Margin

Net Profit Margin

Where GPM only examine the cost of good sold, operating profit margin takes it up to analyze the percentage of the firm's operating income. Gitman (2012) says in his book, that operating profit margin useful for measuring the percentage of each dollars from revenue remaining after financing the operating expenses other than taxes, interest, and dividends.

$$\text{Net Profit Margin} = \frac{Earnings\ available\ for\ common\ stockholders}{Sales}$$

Equation 4: Net-Profit Margin

Return on Asset

ROA, return on asset, or also known as ROI (Return of Investment), is a staple ratio for analyzing company's profitability. According to Gitman (2012) ROA measures the overall effectiveness of the firm's in generating earnings with the total asset they have.

$$ROA = \frac{Earnings\ available\ for\ common\ stockholders}{Total\ Assets}$$

Equation 5: ROA

Return on Equity

ROE (Return on Equity) is also a staple for profitability analysis. Furthermore, ROE with ROA is a part of DuPont system analysis which we will discuss later. On his book Gitman (2012) explain that ROE is used to measures the return gain on the common shareholders investment in the company.

$$ROE = \frac{Earnings\ available\ for\ common\ stockholders}{Common\ stock\ equity}$$

Equation 6: ROE

Earnings Per share

The last ratios on profitability terms is earnings per share or EPS. This ratio is commonly present both in income statement and the company's financial highlight. Gitman (2012) says that EPS are represents the number of dollar earned on the period which attributed to each of outstanding shares of common stock.

$$Earnings\ Per\ Share = \frac{Net\ Income}{Number\ of\ shares\ of\ common\ stock\ outstanding}$$

Equation 7: EPS

Liquidity Ratio

Current Ratio

The first liquidity ratio will be used is current ratio. According to Gitman (2012) current ratio can be used to measure the company's ability to pay off its short-term obligations.

$$Current\ Ratio = \frac{Current\ Assets}{Current\ Liabilities}$$

Equation 8: Current Ratio

Quick Ratio

Quick ratio is similar to current ratio except it excludes inventory in the process. In the book Gitman (2012) wrote that quick ratio is a deeper measure of the firm's ability to financed the short-term liabilites which excludes inventory and prepaid expenses.

$$Quick\ Ratio = \frac{Current\ Assets - Inventory}{Current\ Liabilities}$$

Equation 9: Quick Ratio

Activity Ratio

Inventory Turnover

Activity ratio purposes is to measure the speed of particular accounts are converted into sales and inventory turnover is the best example to reflect the firm's activity. According to Gitman (2012), inventory turnover is used to calculate the activity and liquidity of inventories owns by a company's.

$$Inventory\ Turnover = \frac{Cost\ of\ Goods\ Sold}{Inventory}$$

Equation 10: Inventory Turnover

Total Asset Turnover

While inventory turnover explain the inventories activity, total asset turnover takes analyst into asset-use efficiency. On his book, Gitman (2012) says that total asset turnover is indicating the company's efficiency on using it's asset to generate cash or sales.

$$Total\ Asset\ Turnover = \frac{Sales}{Total\ Assets}$$

Equation 11: Total Asset Turnover

Average Collection Period

Account recievables is one of the important account for the company and average collection period shows how account receivables can affect company's activity. Gitman (2012) explain that average collection period is an attempt to calculate average period needed to collect the firm's receivable accounts.

$$Average\ Collection\ Period = \frac{Account\ Receivables}{Average\ Sales\ per\ Day}$$

Equation 12: Average Collection Period

Debt Ratio or Financial Leverage

Debt Ratio

Debt is undoubtedly a crucial part of the business, and debt ratio will be the first ratio on debt/leverage terms. According to Gitman (2012) debt ratio is commonly used to measure the proportion of debt used to financed the firm's total asset.

$$Debt\ Ratio = \frac{Total\ Liabilities}{Total\ Assets}$$

Equation 13: Debt Ratio

Time Interest Earned Ratio

Time interest ratio will bring deeper analysis regarding of taxes and interest payment. Gitman (2012) says in his book that time interest earned ratios is indicating the firm's ability to make contractual interest payment.

$$Time\ Interest\ Earned\ Ratio = \frac{Earning\ Before\ Interest\ and\ Taxes}{Taxes}$$

Equation 14: Time Interest Earned Ratio

Long Term Debt to Total Asset

The last ratio of debt/leverage terms will be long term debt to total asset. The ratio is intended to give a perspective regarding the firm's asset that financed by long-term obligation.

$$Long\ Term\ Debt\ to\ Capital = \frac{Long\ Term\ Debt}{Total\ Asset}$$

Equation 15: Long Term to Total Asset

Market Ratio

Price/Earnings (P/E) Ratio

Market ratios are known to deliver insight for investor by utilizing two different aspect of the company's, the book value and market value, and P/E or price earning ratio is one of the widely used ratio regarding market terms. Gitman (2012) explain that P/E is an attempt to calculate the amount of cash an investors willing to pay for a dollars of a company's profit.

$$P/E\ Ratio\ = \frac{Market\ Price\ per\ Share}{Earning\ per\ Share}$$

Equation 16: P/E Ratio

Price to book Ratio

While the P/E utilizing the firm's earning per share, price to book ratio deliver a perspective about the book value per share. According to Ross (2010) the price to book ratio is a comparison of market value of the company's investment to their cost.

$$Market - to - Book\ Ratio = \frac{Market\ Value\ per\ Share}{Book\ Value\ per\ Share}$$

Equation 17: Price to book Ratio

DuPont System Analysis

DuPont system of analysis merges the income statement and balance sheet into two summary measures of profitability, ROA and ROE. Gitman (2012) say on his book that DuPont formula is using a combination of net profit margin (NPM), and total asset turnover ratio to calculate the firm's return on total assets (ROA).

$$ROA = \frac{Earnings\ Available\ for\ Common\ Stockholder}{Sales}$$

Equation 18: DuPont ROA Analysis

$$ROE = \frac{Earnings\ Available\ for\ Common\ Stockholder}{Common\ Stock\ Equity}$$

Equation 19: DuPont ROE Analysis

Valuation

According to Gitman (2012) valuation is the process to link the risk and return in order to determine the worth of an assets. Valuation bear a purposes as a guide or decision making tools for investor to make an investment on a business, because it basically gives us reasonable estimation on the firm's value based on fundamental and other financial aspect. In general, the total value of an asset is equal the present value of the cash flow that it will generate in the future. Discounted cash flow model (DCF) is the most used business valuation method because it can be applied to to almost any type of business or the firm's capital structure. While it is only one of three ways of approaching valuation, DCF is the foundation on which all other valuation approaches are built (Damodaran, 2012). Relative valuation is another popular method of estimating value of the companies due to less-complex approach and speed (Petersen and Planborg, 2011). Unlike DCF analysis, this valuation method does not heavily rely on various inputs and assumptions, making relative valuation a good alternative to quickly estimate a firm's value.

Relative Valuation

There are at least two approaches to using multiple to value companies, there is fundamental approach, which is the multiples are taken from the firm's fundamental section such as growth in profit or cash flows, and the comparable approach, which the multiple are estimated from comparable peer company (Damodaran, 2012).

Dividend Payout Ratio

Gitman (2012) explain that dividend payout ratio indicates the percentage of each dollar earned that a firm distributes to the owner in the form of cash.

$$Dividend\ Payout\ Ratio = \frac{Dividends\ per\ share}{Earnings\ per\ share}$$

Equation 20: Dividend Payout Ratio

P/S Ratio Valuation

According to Damodaran (2012) the price/sales ratio is the ratio of the market value equity to the sales which used to measure the value of equity relative to the revenue the business generates, The formula of P/S ratio will be describe as follows:

$$\text{P/S ratio} = \frac{Payout\ ratio\ x(1+g)x\ [1-(1+g)^n)/(1+Ke.hg)^n]}{Ke.hg-g} + \frac{Payout\ ratio\ n\ x(1+g)^n x(1+g\ n)}{[Ke.st-g\ n](1+Ke.hg)^n} \text{ X Net Profit Margin}$$

Where:
g = Growth rate in the first n year
payout ratio = Payout ratio in the first n years
g n = growth rate after n years forever (stable growth rate)
payout ratio n = Payout ratio after n years for stable firm
Ke = Cost of equity (hg:high growth; st:stable growth)

Equation 21: P/S Ratio

Price/Book Valuation

Damodaran (2012) explains the price/book value ratio of the market value of equity to the book value of equity in order to measures the shareholders equity in the balance sheet. The formula of p/b valuation will be describes as follows:

$$\text{PBV ratio} = \text{ROE x } \frac{Payout\ ratio\ x(1+g)x\ [1-(1+g)^n)/(1+Ke.hg)^n]}{Ke.hg-g} + \text{ROE X } \frac{Payout\ ratio\ n\ x(1+g)^n x(1+g\ n)}{(Ke.st-g\ n)(1+Ke.hg)^n}$$

Equation 22: P/B Ratio

Discounted Cash Flow

Dicounted cash flow (DCF) is the widely known techniques to calculating a firm's intrinsic value. Damodaran (2012) explain that discounted cash flow valuation relates the value of an asset to the present value (PV of expected future cash flows on that asset.

$$Present\ Value = \frac{CF_1}{(1+r)} + \frac{CF_2}{(1+r)^2} + \frac{CF_3}{(1+r)^3} + \cdots \frac{CF\infty}{(1+r)\infty}$$

Where :

CF1 = Expected Cash Flow on Period 1
R = WACC

Equation 23: Present Value of DCF Model

Free Cash Flow

Free cash flow is a crucial part for discounted cash flow model. According to Gitman (2012) free cash flow is the amount of cash flow available to investors (credit and owners) after the company has pay off all operating expenses and met the investment needs in net fixed asset and current asset.

$$FCF = EBIT\ (1-T) + Depreciation - Net\ Capital\ Spending - Change\ in\ Net\ Working\ Capital$$

Where :
FCF = Free Cash Flow
EBIT = Earnings Before Interest and Taxes
T = Effective Tax Rate

Equation 24: Free Cash Flow

Operating Cash Flow

Operating cash flow is a component needed to calculate a firm's free cash flows. Altough there's a variety of different definition, the common use of this method is by using after-tax operating income plus the company's amount of depreciation. Gitman (2012) explain that operating cash flow is the cash flow generated from normal business operation, by producing and sell the firm's goods or services.

$$Operating\ Cash\ Flow = EBIT\ (1-T) + Depreciation$$

Where :
EBIT = Earnings Before Interest and Taxes
T = Effective Tax Rate

Equation 25: Operating Cash Flow

Net Capital Expenditure

Net capital expenditure or often known as CAPEX (capital expenditure), are used to acquire physical assets such as property, equipment, or inventories. The formula to calculate CAPEX is as follows :

$$Net\ Capital\ Expenditure = (Ending - Beginning\ of\ Fixed\ Asset) + Depreciation$$

Equation 26: Net Capital Expenditure

Change in Net Working Capital

Net working capital is the differences between the firm's short-term asset and hort-term liabilities. It is one crucial components on discounted cash flow model. On his book, Gitman (2012) say that change in networking capital is the differences between a change in current assets and a change in current liabilites.

$$Change\ in\ Net\ Working\ Capital = Ending - Beginning(Current\ Asset - Current\ Liabilities)$$

Equation 27: Change in Net Working Capital

Weighted Average Cost of Capital

Weighted average cost of capital (WACC) commonly used to indicator of what numbers the investors expected from the firm's profit generated form its fixed asset, advertising, and human resources. According to Gitman (2012) the weighted average cost of capital reflects the expected average of projected future cost of capital over the long period of time.

$$WACC = \left(Wd\ x\left(Kdx\ (1-T)\right)\right) + (We + Ke)$$

Where :
WACC = Weighted Average Cost of Capital
Wd = Proportion of Debt
Kd = After-tax Cost of Debt
T = Taxes
We = Proportion of Equity
Ke = Cost of Equity

Equation 28: Weighted Average Cost of Capital

Cost of Debt

There is two type of cost of debt, before-tax cost of debt and after-tax cost of debt. The later will be used due to deductibility of interest cost, hence lowest possible cost of debt for the company. According to Damodaran (2012) the cost of debt is an attempt to calculate the current expenses to the firm of borrowing funds to finance project. Two formula to calculate after-tax cost of debt is presented as follows :

$$After-tax\ Cost\ of\ Debt = Average\ Bank\ Loan\ x\ (1-T)$$

For the company with bonds,

$$After-tax\ Cost\ of\ Debt = YTM\ x\ (1-T)$$

Where :
YTM = Yield-to-Maturity
T = Effective Tax Rates

Equation 29: Cost of Debt

Cost of Equity

Either high or low, every investment comes with risks, and cost of equity is the expected return from an investment to compensate the risks investor bear by investing their capital. On his book, Damodaran (2012) say that the cost of equity is the rate of return investors require on an equity investment in a company.

$$Cost\ of\ Equity = Risk\ Free\ Rate + (Beta\ Coefficient\ x\ Market\ Risk\ Premium)$$

Equation 30: Cost of Equity

Beta Coefficient

Beta coefficient is a popular method of capital asset pricing model (CAPM) and can be found in almost every financial overview or analysis for a company. In his book, gitman (2012) say that the beta coefficient is a relative measue of non-diversifiable risk.

$$\beta a = \frac{Covariance\ (ra,rb)}{Variance\ (rb)}$$

Where :
ß = Beta Coefficient of the Firm's
ra = Array of the Firm's Stock Return
rb = Array of Market Index Return

Equation 31: Beta Coefficient

Return on Capital

According to Damodaran (2007), retun on capital is an attempts to calculate the return earned on capital invested in an investment.

$$Return\ on\ Capital = \frac{After-tax\ Operating\ Income}{Book\ Value\ of\ Invested\ Capital}$$

Equation 32: Return on Capital

Dividend Payout Ratio

Gitman (2012) explain that dividend payout ratio indicates the percentage of each dollar earned that a firm distributes to the owner in the form of cash.

$$Dividend\ Payout\ Ratio = \frac{Dividends\ per\ Share}{Earnings\ per\ Share}$$

Equation 33: Dividend Payout Ratio

Determining Terminal Value

Terminal value also known as continuing value or horizon value, is a value of an entire firm's at a specified future valuation date. According to Damodaran (2012) determining terminal value is a compromise we make by stopping the cash flow projection sometimes in the future and computing the terminal value that reflects the value of the firm at that point due to inability to estimate cash flow forever.

$$Terminal\ Value = \frac{FCF\ (1+g)}{(WACC - g)}$$

Where :
FCF= Free Cash Flow
WACC = Weighted Average Cost of Capital
g = Perpetuity Growth

Equation 34: Terminal Value

Perpetuity Growth

Perpetuity growth rate or stable growth rate is one crucial input on discounted cash flow model, because it can affect the terminal value significantly. Damodaran (2012) argues that even though a company's can maintain its high growth period for a long time, they are going to approach a stable period at one point in the future eventually

Intrinsic Share Price

For the public-listed company, estimating share price is the last step on discounted cash flow model for measuring the firm's intrinsic value.

$$Share\ Price = \frac{Company\ Value\ from\ DCF - Total\ Long\ Term\ Debt}{Number\ of\ Outstanding\ Shares}$$

Equation 35: Share Price

Sensitivity & Scenario Analysis

According to Ross and Westerfield (2010), scenario analysis or sensitivity analysis is also known as what-if analysis and bop (base, optimistic, and pessimistic) analysis. Koller et al., (2005) explain that sensitivity analysis is necessary to evaluate the results from estimated future projection under different situation

Damdoaran (2007) argue that is needed to perform a scenario analysis to see how the estimated value will change under the different scenarios. Where sensitivity analysis only change one assumption at a time, a scenario analysis takes it even further by combining a multiple sensitivity analysis at the same time.

Methodology

Problem Identification

Problem identification is analytical activity which contains a process to identify the problem to be solved. In this researched, the author is aimed to analyze about the past, current, and future financial condition of PT Indomobil Sukses Internasional and make valuation in comparison to other automotive company, Tan Chong Motor Holdings Berhad, to know it's share value influenced by the trend analysis.

Literature Review

According to Central Queensland University library, literature review is an evaluative report of information found in the literature related to author's selected area of study. The literature reviews of this research focus on financial paper, journal, or books containing information about financial assessment, performance analysis about past, current, and future condition of a firm's, and it shares value/

Data Collection

Data collection will be gathered from secondary data of the two companies (PT Indomobil Sukses Internasional Tbk and Tan Chong Motor Holding Berhad, which include

- Company' stock's weekly historical price

- Company's annual financial reports

Data collected for this research is between 2009 until 2014. All the secondary data were taken from yahoo finances and both companies website.

Data Analysis

This thesis will analyze the data based from:

- Financial ratios for the year 2009 to 2014 of PT Indomobil Sukses Internasional Tbk. and Tan Chong Motor Holdings Berhad includes profitability ratios, liquidity ratios, financial leverage ratios, market ratios, and activity ratios
- The growth rate for expected sales forecast generated from CAGR based from history data and market condition
- The discount rate factor will be generated from calculation of WACC

The calculation on both company's secondary data is using five financial ratios. The calculation for financial ratios are sourced directly from both company's annual financial reports to calculate profitability, liquidity, activity, debt/equity, and return on investment ratios. Stock's historical prices also included to determine the company's value. Data analysis should be conducted after calculation of five financial ratios in order to measure the performance of both firms. The analysis could be done annually (from 2009 to 2014) and based from the result of five financial ratios. After the calculation, it would show us both companies performance level.

Conclusion and Recommendation

Conclusion is the last stage of this final project, which summarizes the overall results and discussions. The conclusion will be resolved around the review of company financial performance and analysis of company valuation between two automotive industries, PT Indomobil Sukses Internasional Tbk and Tan Chong Motor Holdings Berhad. Moreover the analysis will be supported by several explanation in order to give an illustration of company's performance and shares values for past, present, and future.

Results & Data Analysis

Trend Analysis

Table 1. Indomobil Trend Analysis

PT Indomobil Sukses Internasional Tbk							
Financial Ratios		2009	2010	2011	2012	2013	2014
Profitability	Gross profit margin	13.11%	12.85%	13.25%	12.40%	12.39%	13.54%
	Operating profit margin	1.87%	3.01%	6.45%	5.30%	4.73%	5.19%
	Net profit margin	1.70%	4.65%	6.11%	4.55%	3.09%	-0.34%
	Return on Asset (ROA)	2.32%	5.62%	6.30%	4.56%	2.39%	-0.55%
	Return on Equity (ROE)	27.00%	35.16%	17.41%	15.46%	9.10%	-2.24%
	Earnings per share	118	433	347	290	193	-46
Liquidity	Current ratio	0.93	1.06	1.36	1.24	1.09	1.03
	Quick ratio	0.68	0.7	0.92	0.74	0.66	0.74
Activity	Inventory turnover	8.23	8.25	7.03	5.51	4.2	4.3
	Total asset turnover	1.36	1.37	1.23	1.12	0.9	0.8
	Average collection period	24.4	21.82	24.32	29.36	36.43	45.85
Debt/Leverage	Debt ratio	0.87	0.80	0.61	0.68	0.70	0.71
	Time interest earned ratio	0.67	2.64	4.88	3.21	1.84	1.34
	Long term debt to total asset	0.27	0.27	0.18	0.22	0.22	0.23
Market	P/E ratio	7.28	17.55	36.89	18.27	25.39	-87
	Market to book ratio	19.62	6.13	3.78	2.80	2.31	1.93
	Market Price per Share at the End of the year in IDR	646	7,553	12,800	5,250	4,900	4,000

Profitability

The profitability ratios of PT Indomobil Sukses International Tbk represents a slight decrease form year 2011 to 2012 in all terms of profitability ratios such as gross profit margin, operating profit margin, net profit margin, ROA, and ROE. The decrease is attributed to the company's business expansion, among others, to establish 40 new sales and after sales service network throughout 2012. The table shows that gross profit margin did not shift significantly from 2009 to 2013, having just 0.85% as the margin between the highest and the lowest GPM. On the other hand, operating profit margin and net profit margin show a consistent climb, having the highest point in 2011 at 6.11%, before fall short in 2012 at 4.55%. At the time, the USD-IDR rate were rise, thus making PT IMAS total operation expense and cost of goods sold (COGS) were heavily increased because it directly affected imported raw material prices used for manufacturing process. The ROA are somewhat following the trends of net profit margin, which peaked at 2011 at 6.30% then slowly decline in 2013 at 2.39%, and even further into -0.55% in 2014, means the company efficiency of using it assets to generate earnings were decline. The ROE also happen to experience a significant decrease after the year of 2010, as we can see from earnings per share (EPS) point of view, which PT IMAS constantly going down from year to year, mostly because the company's did a 1:2 stock split in June 2012, resulting in doubled increase in number of outstanding shares, thus the EPS ratios went down from 290 in 2012 to 193 in 2013. In 2014, other expenses such as earnings (losses) of associated company and financial charges increase substantially, primarily due to business competition, rising interest rates, and depreciation of Indonesian Rupiah, resulting to lower earnings available for common stockholder, hence the minus ratio on net profit margin, ROA, and ROE.

Liquidity

The overall liquidity ratios of PT IMAS seems to be stable and having been considered at a level that is consistent. As the table shows us, the highest liquidity of current ratio and quick ratio was happened in 2011 before slightly going down. Theoretically, a good current ratio will increase from year to year, a sign that shows the company's capability to pay its short term debt. PT IMAS current and quick ratios are jumped drastically from 0.7 in 2010 to 9.2 in 2011 due to the fact that the company successfully acquired Rp 2.77 trillion of fund from limited public offering. As stated in annual report of PT Indomobil in 2011, The President Director, Jusak Kertowidjojo said: "*In June 2011, the Company managed to raise Rp 2.77 trillion of fund from its Limited Public Offering (PUT) II. About 60% of it was used to pay off the Company's and part of its subsidiaries debt and 40% to develop its business and bolster its working capital.*". After 2011, the company's current ratio are going downward from 1.36 to 1.03 in 2014, which means they had less cash to pay their short-term debt. The quick ratio also show the same result.

Activity

In terms of activity ratios consist of inventory turnover, total asset turnover, and average collection period. From the total asset turnover ratio, we can see that is increased from 1.36 in 2009 into 1.37 in 2010 then going down gradually from there until 0.8 in 2014, due to the fact that company's had a bigger increase in total asset rather than the increase in overall sales of the firms and its subsidiaries. It means after the year 2011 the firm's operating efficiency was decreased and they failed to make use of it asset to generate sales. The similar movement also happened in the inventory turnover ratio calculation, indicating a decreasing performance of the company regarding the liquidity of a firm's inventory. On the other hand, the average collection period ratio calculation seems fluctuate from 2009 until 2011, and then shows a significant increase from 29.36 days in 2012 to 45.85 days in 2014. It actually in line with other activity ratios because the higher average collection indicates non optimal activity because it took longer for the firm's to collect cash.

Debt/Leverage

In the debt ratio calculation of PT IMAS has slightly decrease from 80% in 2010 and swooping down into 61% in 2011 due to the Rp 2.7 trillion fund the firm's attain from limited public offering which they used to pay off roughly about 40% of the company's and it subsidiaries debt. This is a good indication because the company are lower in capital debt from bank or other financial institution, and seen capable to fulfill its contractual debt payment. The times interest ratio also at it's highest level at 4.88 in 2011 due to debt eliminating program the firm's had, and decreasing gradually into

1.34 in 2014 indicating the company's operating profit also in decline state. The debt to asset ratio began to increase from 18.71% in 2011 to 22.22% in 2012 because the firm's business expansion to deliver 40 new sales and after sales service network throughout the domestic market.

Market

In the market ratios, PT IMAS has good earnings per share ratio in 2010 as it soaring high from 2009 ratio which increased 245 points. It means that in 2010 the company's has high net income that generated from each shares traded and investors were confident with the firm's condition at the time. The higher point of P/E ratio for the company would be on the year 2011 at 36.89, whereas there is an issue of Thailand floods but the company was on the best situation in terms of generating the highest operating income, earning before tax, and net income, compared to other years on the same period. The 2014 negative P/E ratio at -87 was the result of the company's negative EPS. From market to book ratio we can deduce that investors still expect PT IMAS to perform well at 19.62 in 2009, although it became smaller each year with the lowest point at the year 2014 at 1.93 due to the firm's unfavorable book value and net income losses.

Growth Rate Comparison

Table 2. Tan Chong Trend Analysis

Tan Chong Motor Holdings Berhad							
Financial Ratios		2009	2010	2011	2012	2013	2014
Profitability	Gross profit margin	17.65%	20.14%	20.23%	19.11%	21.70%	18.53%
	Operating profit margin	6.41%	9.56%	8.24%	5.97%	7.46%	4.41%
	Net profit margin	5.36%	6.56%	5.60%	4.06%	4.83%	2.21%
	Return on Asset (ROA)	6%	8.38%	7.18%	4.22%	5.04%	2.10%
	Return on Equity (ROE)	10.11%	13.67%	11.84%	8.57%	9.27%	3.81%
	Earnings per share in MYR	0.234	0.352	0.331	0.242	0.384	0.162
Liquidity	Current ratio	2.32	2.76	2.22	1.72	1.55	2.29
	Quick ratio	1.30	1.20	1.10	0.82	0.58	0.97
Activity	Inventory turnover	3.49	2.79	3.21	2.34	2.36	2.56
	Total asset turnover	1.16	1.28	1.27	1.03	1.04	0.95
	Average collection period	27.21	25.72	21.37	31.71	26.89	36.11
Leverage	Debt ratio	0.38	0.38	0.39	0.51	0.46	0.45
	Time interest earned ratio	8.97	12.19	12.79	5.66	7.98	3.74
	Long term debt to total asset	0.12	0.15	0.11	0.11	0.10	0.22
Market	P/E ratio	13.32	14.72	12.32	19.13	16.12	20.25
	Market to book ratio	1.35	2.01	1.45	1.54	1.49	0.77
	Market Price per Share at the End of the year in MYR	3.12	5.18	4.08	4.63	6.19	3.28

Profitability

Profitability ratio of Tan Chong Motor Berhad represents stable growth overtime. In 2010 the company successfully gearing up all profitability ratio such as gross profit margin, operating profit margin, net profit margin, ROA, and ROE. The increase can be attributed to the firm's success of selling all-new Nissan Teana on the market, reflecting the transition of stronger passenger model than commercial vehicle on the overall sales. The company also made strategic expansion throughout the ASEAN market by acquiring exclusive distribution agreement with Nissan motor in Cambodia and Laos, and also 74% acquisition of Nissan Vietnam Co. Ltd. In 2011, all ratios having a slight decrease, up to 2% by the year 2012. The net profit margin, ROA, and ROE were fall short because the negative growth of operating income, the effect of intense competition and higher promotional campaign on domestic market, as well as losses suffered by the Nissan Vietnam due to weak market condition and high taxes. In 2013 the firm's revenue and operating income were

increased significantly, hence the higher gross profit and operating profit margin. The domestic car sales were increased as well as the Vietnam automotive industry, which showing recovering signs from weak market the last two years. The firm's ROA and ROE were also having a slight increase from 4.22% and 8.57% in 2012 into 5.05% and 9.27% in 2013 respectively, due to the revaluation of property, plant, and equipment, which contribute to large portion of total comprehensive income available for shareholder. Unfortunately in 2014 the company had to suffer a big decrease on all profitability ratios due to the weaker Malaysian Ringgit and slower domestic economy, resulting on lower revenue and higher operating cost.

Liquidity

Liquidity ratio of Tan Chong Motor Berhad can be considered at a stable level. Table 2 show us that the firm's current ratio was growing at from 2009 at 2.32 to the highest point in 2010 at 2.76 before slowly decline to 2.29 in 2014, which is similar to the level in 2009. The lowest point of current ratio was in 2013. This is because current asset like cash and derivative financial asset were decreasing almost half the value from 2012 at MYR 600 million into MYR 300 million. Even though the decrease reducing the firm's ability to cover the short-term debt, it shows that the company has reinvested the cash in the business such as in the automotive assembly plant the company built in Vietnam. However, the quick ratio was declining constantly from 1.30 in 2009 to 0.58 in 2013 due to the increasing inventory before going up at 0.97 in 2014. This is in line with Malaysia domestic total automobile production, has declined to -0.8% in 2013 from 601,000 units into 596,000 units in 2014 based on Malaysian Automotive Association data (MAA, 2015).

Activity

From the table above, it shows that the inventory turnover was fluctuated overtime, with the lowest point in 2012 and then growth steadily after that. It implies that Tan Chong could maintain strong sales despite the stable increases of inventory overtime. From the total asset turnover ratio, we can see it increased to its highest point at 1.28 in 2010 before decreased gradually due to the growth of the firm's assets overcame the sales itself at 0.95 in 2014. Hence, it is suggesting that the company and its subsidiary had operating deficiency and failed to make use of its asset to generate more revenues. Average collection period ratio also was fluctuated over the period of analysis with it highest point at 36.11 in 2014, which shows that it took longer for the company to collect cash from sales and shows a non-optimal activity.

Debt/Leverage

The table 2 shows that Tan Chong's debt ratio was remain stable at 0.38 from 2009-2010 periods. The ratios have increased slightly to 0.39 in 2011, before increased heavily to 0.51 in 2012 following the expansion of new Nissan showroom on Kuching City, Malaysia, as well as the construction and utilization of Danang Assembly Plant in Danang City, Vietnam. The long term debt to total asset ratio also had a minor fluctuation, showing a rather low and less dependent Tan Chong on loans. Up until 2014, when the ratio increased to 0.22. This was mostly due to the Medium Term Notes issued by the company's, a 7 million Ringgit corporate note range in maturity 5-7 years that proposed to finance capital expenditures and general corporate purposes, as written on the firm's offering memorandum.

Market

From the table 2, Tan Chong Motor has a increased growth of P/E ratio. The lowest point of P/E ratio would be at 12.32 in 2011, due to Japan earthquake in March and Thailand flood in October, resulting in calamities and disrupted supply for the year. Nevertheless, the company's remain resilient and has improving their position on the market, giving an assurance to investors about the future business performance, thus the P/E ratio has increased to 20.25 in 2014. For investors, it means they have to pay more for the same earnings generated by Tan Chong. On market to book ratio, the company has a fluctuated growth of the ratio. It declined from 1.54 in 2012 to 0.77 in 2014, where the market value was below the book value of the firm's stock. Clearly, higher market to book ratio means the investors are willing to pay more, and based on Tan Chong Motor case as the market to book ratio is 0.77, the firm's prospect were not so attractive for investors. To examine the relative financial performance comprehensively we shall compare the company's ratios to peer firms and industry average. Therefore, next we will compare the performance of IMAS and Tan Chong.

Table 3. Compound Annual Growth Rate (2014)

CAGR		
Year 2009-2013	PT IMAS	Tan Chong Motor
Net Sales	22.9%	11%
Cost of Goods Sold	22.8%	11%
Gross Profit	23.7%	12%
Total Operating Expense	36.1%	16%
Operating Income / Profit	50.7%	3%
Other Income / (Expense)	-257.9%	51%
Profit Before Income Tax	-39.3%	-1%
Income (Expense) Tax	-5.3%	17%
Net Income	-189.3%	-5%

The table above (Compound Annual Growth Rate) shows us the growth rate of PT Indomobil Sukses Internasional Tbk (IMAS.JK) and Tan Chong Motor Holdings Berhad (TNCS.KL) taken from the income statement from 2009 to 2014

Based on growth rate comparison between PT IMAS Tbk and Tan Chong Motor the growth rate indicates different strength and weakness from calculation of CAGR implemented in the income statement both of PT IMAS and Tan Chong Motor. The income statement consist of net sales, CoGS, gross profit, total operating expense, operating income/profit, other income (expense), profit before income and tax, tax income (expense), and finally the net income.

In CAGR calculation above, the growth rate of net sales for both companies started with solid number and ended up with negative numbers. This condition reflect the significant decline due to a difficult condition on a low level of currency rate which leads to increasing cost of raw material needed for manufacturing process. The calculation indicates that automotive industry shown an increasing trend over the years, with PT IMAS have the highest growth over Tan Chong on net sales, COGS, gross profit, operating expenses, and operating income. Keep in mind that economic growth of Indonesia were overpassed Malaysia after late 2008 global financial crisis and the country is capable to maintain their economic condition and influenced the growth for domestic buying power which creates more demand. The sales of PT IMAS itself were soaring high, increasing almost 3 times over the 5 years period, from IDR 7 trillion on 2009 up to IDR 20 trillion on 2013. Nevertheless, in terms of other income (expense), profit before income and tax, tax income (expense), and net income, Tan Chong Motor were higher that PT IMAS, showing that their company has more stable income despite the mediocre growth of sales. Both companies having a hard times because the currency rate to USD were became weaker, but more for PT IMAS, where drop in oil prices helped Tan Chong Motor maintain their domestic position, Indonesia automotive industry encounter a difficult situation because the government were withdrawing subsidy for gas while having economic slowdown, making the oil prices higher than it already has and affecting market demand for vehicles. This situation leads to losses from several subsidiaries of PT IMAS, resulting in a massive gap of net profit margin in recent years and a very negative numbers of net income growth. Overall, Tan Chong Motor have the best results considering stable results and economic condition of two country although the growth income for both of them is indicating a minus number.

Cross-section Analysis

Table 4. Cross-section Analysis

Cross-Section Analysis			
Year 2014		PT IMAS	Tan Chong Motor
Profitability	Gross profit margin	13.54%	18.53%
	Operating profit margin	5.19%	4.41%
	Net profit margin	-0.34%	2.21%
	Return on Asset (ROA)	-0.55%	2.10%
	Return on Equity (ROE)	-2.24%	3.81%
	Earnings per share	-46	0.162
Liquidity	Current ratio	1.03	2.288
	Quick ratio	0.74	0.97
Activity	Inventory turnover	4.3	2.56
	Total asset turnover	0.8	0.95
	Average collection period	45.85	36.11
Debt/Leverage	Debt ratio	0.71	0.45
	Time interest earned ratio	11.74	4.12
	Long term debt to total asset	0.23	0.22
Market	P/E ratio	-87	20.25
	Price to book ratio	1.93	0.77

= The highest value compared to other company value

This cross-section analysis used to compare the financial performance of PT Indomobil Sukses Internasional Tbk (IMAS.JK) and Tan Chong Motor Holdings Berhad (4405.KL).

Industry average was not used in this case, mainly because the automotive industry in Indonesia market consists of companies with different size and business segments. PT IMAS are car manufacturing and retailer, whereas most of the company in the industry has another business sector like agriculture and system information, or even only as a auto parts and tires manufacturer. Tan Chong Motor, a Malaysian based automobile company, was chosen because the similar characteristic and comparable market condition.

The cross-section analysis implemented to several aspects based on financial ratios which are profitability, liquidity, activity, debt/leverage, and market. Cross-section analysis used to determine how well the performance of company against their key competitors in the same industries or business field. This analysis focused on scope of automotive companies or industries where IMAS will be compared against their key competitor which is Tan Chong Motor on their financial performance. Our analysis will be focused on the performance in the recent years, 2014. Most ratios represent positive numbers. Though in comparison, there are significant differences in some aspects of the financial ratios.

In terms of profitability, PT IMAS ratios are lower than Tan Chong Motor in all aspect, except operating profit margin. Net profit margin, ROA, ROE, and EPS of PT IMAS were showing negative numbers at -0.34%, -0.55%, -2.24%, and -46 respectively, due to losses occur in recent year. This is driven by increasing manufacturing and operating cost as well as market sentiment towards domestic economy, whereas Malaysia automotive industry were energized by National Automotive Plan (NAP) to expand domestic demand while increasing eagerness of new foreign investment. In terms of liquidity, Tan Chong Motor has advantage over PT IMAS in both current and quick ratio. This means in 2014 Tan Chong Motor was sufficiently good at maintain their total asset with and without inventory, the least liquid current asset, to repay the short-term debt.

In terms of activity ratio, PT IMAS condition still not better than Tan Chong in all aspect, except inventory turnover. It means Tan Chong use their asset more efficient than average competitor on the market, but fall short in terms of inventory efficiency with 1.74 margin, either they have too much inventories or simply having poor sales in 2014. PT IMAS activity ratio also comes up decent but still can be better, with inventories efficiency become the firm's strongest point. In debt/leverage aspect, PT IMAS has the advantage of outscore Tan Chong ratios on long-term debt to total asset. It means Tan Chong are less dependant on long term loans to finance their asset. On the other hand, Tan Chong Motor indicating their capability of maintaining the amount of debt being used to generate earnings, as it shows on debt ratio and fulfill its interest obligation to make contractual interest payments. The firm are well-known as their conservative approach and it's reflected on their less degree of debt and financial leverage by having only less than half of its total asset financed by debt compared by PT IMAS which has almost 2/3 their assets comes from loans. Based from analysis above, PT IMAS seems to be riskier choice in terms of credit risk compared than Tan Chong Motor.

In terms of market ratio, Tan Chong once again lead in all ratios over PT IMAS. As shown on the table 4, PT IMAS had a negative number on its P/E ratio at -87 due to the losses the company experienced on recent years, whereas Tan Chong has a better value of P/E ratio at 20.25, with 2014 was it's highest point on the period, due to stronger degree of confidence investors have on the company's future performance. On market to book ratio its shows how Tan Chong has a smaller number than 1, which can be interpret that the company can maintain it price to book which lead to investors is currently paying lower than what the firm's earned, or in other words, Tan Chong Motor is undervalue. However, PT IMAS market to book ratio is greater than 1, which means investor are currently paying more than the actual book value of the firm's per shares. This condition of overvalued may looks bad but it also shows simply their shares still attractive for the investors, basically because market is still willing to pay double than the actual book value per shares. Overall, based on the cross-section analysis measured by the calculation of financial ratios from the annual report of 2014, indicating that Tan Chong Motor has better performance than PT IMAS as shown from the 14 out of 16 aspect ratio. The result is based on peer performance of financial ratio comparison between the same industry companies. PT IMAS clearly was having a less desirable year due to the poor performances of the financial ratios, the increase of operating and finances expenses as the result of subsidiary losses with domestic economic slowdown on 2014 were responsible of PT IMAS unfavorable performance.

Common-Financial Statement Analysis

In assessing the two different companies and compare them is not enough just to use time-series or trend analysis and cross-section analysis, but common financial statement is also required. The common financial statement consists of common size income statement and common size balance sheet. The common size income statement determine each income statement category as a percentage of net/total sales and the common size balance sheet represent each item on the balance sheet as a percentage of total assets and total liabilities plus equity.

In terms of common size income statement both of PT IMAS and Tan Chong Motor has a significant increase in percentage of Cost of Good Sold in 2014, since the global economic crisis. The increase of percentage of COGS also due to weakened level of currency for both host-country, which is IDR and MYR, resulting in higher cost for imported material needed for manufacturing activity. As for Tan Chong Motor, the increase of sales expense also attributed to higher advertising and promotional cost as their strategy to counter weakened market. On operating expenses, PT IMAS operating cost is decrease from 11.2% of sales in 2009 to 6.8% in 2011 due to massive boost in retail sector, and slightly increase to 8.4% in 2014 because incurred cost to expand their showroom to increase sales percentage. Tan Chong Motor profit before income tax had growth significantly in 2013 due to increase in sales of the firmm befire decrease again in 2014. The same trend can be found for PT IMAS except they achieve their highest profit before income tax in 2011 at 7.5% of sales, before decrease gradually in 2012 and 2013 at 5.40% and 3.0% respectively then drastically reduced to merely 0.1% in 2014 due to higher other income/(expenses) attributed to financial expenses.

In terms of common size balance sheet, the total assets and total liabilities plus equity portion used as a benchmark for the percentage distribution of the balance sheet. For the percentage growth based on total assets, it divided into total current assets and total non-current assets. PT IMAS and Tan Chong Motor has a same trend of a total current-assets and total non-current assets percentage, where PT IMAS maintain the level of their current asset at the level of over 55% in 2009 to 2011 period with the highest point of current asset at 57.2% in 2011. Their current asset are decline gradually until reach it lowest point at 50.5% in 2014. Whereas Tan Chong Motor is more conservative with their asset, keeping the level of current asset percentage to total asset over 60% for 2009 to 2012 period with it highest percentage of current asset at 69.2% in 2012. This condition change when the curretn asset percentage falls to 55.5% to 52.3% in 2013 and 2014 respectively. The trend of both company indicating their invested more to long term asset such as new plant, dealer, and showroom for PT IMAS and new factory and building in Vietnam for Tan Chong Motor.

DuPont System Analysis

DuPont analysis allows the analyst to understand method for assessing the factors that influence a firm's financial performance and its return by comparison with companies in similiar industries. This analysis used two profitability ratios which are ROA and ROE with more detail in formula decomposition. ROA and ROE will be used at DuPont analysis to indicate operating efficiency (net profit margin), asset-use efficiency (total asset turnover), and financial leverage (the equity multiplier). The table below is the result of the calculation of ROA and ROE for 6 years from 2009 to 2014

Table 5. DuPont System Analysis

2009		
	PT IMAS Tbk	Tan Chong Motor Berhad
Net Profit Margin	1.7%	5.36%
Total Assets Turnover	1.36	1.16
Equity Multiplier	11.65	1.63
ROA	2.32%	6%
ROE	27%	10.11%
2010		
	PT IMAS Tbk	Tan Chong Motor Berhad
Net Profit Margin	4.65%	6.56%
Total Assets Turnover	1.37	1.28
Equity Multiplier	6.25	1.63
ROA	5.62%	8.38%
ROE	35.16%	13.67%
2011		
	PT IMAS Tbk	Tan Chong Motor Berhad
Net Profit Margin	6.11%	5.60%
Total Assets Turnover	1.23	1.27
Equity Multiplier	2.76	1.65
ROA	6.30%	7.18%
ROE	17.41%	11.84%
2012		
	PT IMAS Tbk	Tan Chong Motor Berhad
Net Profit Margin	4.55%	3.87%
Total Assets Turnover	1.12	1.03
Equity Multiplier	3.39	2.00
ROA	4.56%	3.94%

ROE	15.46%	8.00%
2013		
	PT IMAS Tbk	Tan Chong Motor Berhad
Net Profit Margin	3.09%	4.83%
Total Assets Turnover	0.9	1.04
Equity Multiplier	3.81	1.84
ROA	2.39%	5.04%
ROE	9.10%	9.27%
2014		
	PT IMAS Tbk	Tan Chong Motor Berhad
Net Profit Margin	-0.34%	2.21%
Total Assets Turnover	0.8	0.95
Equity Multiplier	4.10	1.82
ROA	-0.55%	2.10%
ROE	-2.24%	3.81%

Operating Efficiency

On DuPont system analysis, net profit margin ratio is represent how effective the firm pricing it's goods or services. Net profit margin on both PT IMAS and Tan Chong Motor were increasing on 2009 to 2010 period, indicating a good number of market demand on ASEAN country. On 2011 and 2012, Tan Chong Motor had a drawback on its ratio due to Japan earthquake and Thailand flood, which heavily affect their supply chain. The same factor didn't really affecting PT IMAS, but they keep declining from the year 2012 onwards due to strong competition and increasing interest rate from Bank Indonesia. In 2014 both companies were shown decreasing because weakened currency on Indonesia and Malaysia until it reach IDR 12,900/USD (www.bi.go.id,2015) and MYR 3.5015/USD (www.bnm.gov.my,2015) , resulting on higher cost for imported raw material and manufacturing process.

Asset-use Efficiency

Total asset turnover calculation represent the asset-use efficiency for both companies. The ratios itself indicating a continue decrease for PT IMAS from 2009 to 2014. This event occur due to establishment of new sales and after-sales network throughout Indonesia, as well as issued bond and increase in inventories that enhance the firm's cash Tan Chong Motor on the other hand were achieved the highest point on their asse-use efficiency on 2010 to 2011, before eventually decline on 2012 until 2014 due to increase in both current and long-term asset as impact from their construction of new manufacturing plant on Vietnam, also the revaluation of their asset value, leading to lower number of sales compared to their asset on 2014.

Financial Leverage

DuPont system used calculation of equity multiplier for financial leverage aspect. PT IMAS equity multiplier were declining from 2009 to 2011 because total shareholder equity of the firm's were only IDR 400 billion and it grows over 10 times to IDR 4 trillion on 2011, mainly because increasing of the company's net income and the number of shares of common stock compared on the total asset growth. The equity multiplier began rising upwards due to stagnant growth of net income, which even became losses on 2014. Tan Chong Motor multiplier show an increase from 2009 to 2012, which then slightly decrease until 2014. While the total stockholder's equity grows gradually, this event occur due to asset revaluation the firm which makes higher asset value grows compared to its stockholder equity.

In overall, the DuPont system using ROA and ROE decomposition are indicating that net profit margin calculation has more impact for DuPont analysis. That being said, the best years for both PT IMAS and Tan Chong Motor are 2010 and 2011 respectively, considering the high capability in return for investment due to optimal net profit margin. For the year 2012 and 2013, Indonesia market for automotive starting to decline because domestic increases of oil prices issue, whereas Tan Chong

also got hit eventhough not as bad as PT IMAS because their expansion on other country on ASEAN such as Vietnam, Laos, and Cambodia. 2014 shows up to be the worse year for both companies with PT IMAS stagger to maintain its position which resulting in losses for the firm's.

Relative Valuation

Relative valuation is a method of valuing the company by using multiples. Petersen and Planborg (2011) explain that by using multiples to estimate the worth of a firm, it will be less-complex and quicker rather than calculating the projected cash flow of the company. According to Damodaran (2012) there are three multiples that are widely-use by analyst and public in general, which is price to earnings ratio (P/R), price to sales ratio (P/S), and price to book ratio (P/B). Since P/E ratio depend on the firm earnings and PT IMAS at the time of the valuation had experienced losses, we will use both P/S and P/B ratio to estimate both companies value.

P/S Multiple

P/S ratio is the amount of value an investor is willing to pay for each dollar, or any currency, of a company's profit. This means the higher the P/E the better, because it is indicating the more confidence investors about the company's future prospect. Moreover, the ratio will be multiplied to the firm's net profit to find the relative value of the companies.

P/B Multiple

According to Ross (2010) the price to book ratio is a comparison of market value of the company's investment to their cost. Price to book ratio is determining comparison between market value of a company's shares and its book value (shareholder equity). According to Damodaran (2012), there is a parallel relationship between price to book and ROE where high ROE will have a high book value and vice versa. Moreover, the ratio will be multiplied to the firm's return on equity to find the relative value of the companies.

PT Indomobil Sukses Internasional Tbk

The calculation of the firm's value using P/S ratio of PT IMAS as follows:

Table 6. P/S Ratio of PT Indomobil Sukses Internasional Tbk.

PT IMAS P/S Ratio	
Present Value of Expected Dividends	-3.1570
Present Value of Terminal Price	2.7120
Net Profit Margin	-0,34%
Value of Equity	0.00153

Estimated PS ratio = Net Profit Margin x (PV Expected Dividends + PV of Terminal Price)

= -0.34% x (-3.1570 + 2.7120) = 0.00153

Thus, the value of PT IMAS based on the P/S ratio is 0.00153

After obtaining the expected value of PT IMAS based on P/S multiple, we can compared it to the current value of PT IMAS to make an investment decision.

Table 7. P/S Ratio of PT Indomobil Sukses Internasional Tbk. Comparison

PT IMAS P/S Ratio Comparison	
Expected PS Ratio	0.00153
PS Ratio as in 31 December 2014	0.57
Decision	Overvalue / Sell

Based from table 7 above, we can conclude that expected value of PT IMAS is 0.00153, which is lower than the current value of the firm using the same multiple, hence the logical decision is to sell because it has experience overvalue.

The calculation of the estimated intrinsic P/B ratio of PT IMAS as follows:

Table 8. P/B Ratio of PT Indomobil Sukses Internasional Tbk.

PT IMAS P/B Ratio	
Present Value of Expected Dividends	0.07072
Present Value of Terminal Price	0.06072
Value of Equity	0.13

From the table 7, it indicates that the company's estimated P/B ratio calculated using equation 2.21 will be presented as follow:

Estimated PBV ratio = PV Expected Dividends + PV of Terminal Price
= 0.07072 + 0.06072 = 0.13

Thus, the value of PT IMAS based on the P/B ratio is 0.13
After obtaining the expected value of PT IMAS based on P/B multiple, we can compared it to the current value of PT IMAS to make an investment decision.

Table 9. P/B Ratio of PT Indomobil Sukses Internasional Tbk. Comparison

PT IMAS P/B Ratio Comparison	
Expected PBV Ratio	0.13
PBV Ratio as per 31 December 2014	1.93
Decision	Overvalue / Sell

Based from table 9 above, we can conclude that expected value of PT IMAS is 0.13, which is lower than the current value of the firm using the same multiple, hence the logical decision is to sell because it has experience overvalue.
Tan Chong Motor Holdings Berhad
The calculation of the firm's value using P/S ratio of Tan Chong Motor Berhad as follow:

Table 10. P/S Ratio of Tan Chong Motor Holdings Berhad

Tan Chong P/S Ratio	
Present Value of Expected Dividends	1.6551
Present Value of Terminal Price	3.3985
Net Profit Margin	2.23%
Value of Equity	0.112515

Estimated PS ratio = Net Profit Margin x (PV Expected Dividends + PV of Terminal Price)
= 2.23% x (1.6551 + 3.3985) = 0.112515

Thus, the value of Tan Chong Motor based on the P/S ratio is 0.112515
After obtaining the expected value of Tan Chong Motor based on P/S multiple, we can compared it to the current value of Tan Chong Motor to make an investment decision.

Table 11. P/S Ratio of Tan Chong Motor Holdings Berhad Comparison

Tan Chong Motor P/S Ratio Comparison	
Expected PS Ratio	0.112
PS Ratio as per 31 December 2014	0.450
Decision	Overvalue / Sell

Based from table 11 above, we can conclude that expected value of Tan Chong Motor is 0.112, which is lower than the current value of the firm using the same multiple, hence the logical decision is to sell because it has experience overvalue.
The calculation of the firm's value using P/B ratio of Tan Chong Motor as follows:

Table 12. P/B Ratio of Tan Chong Motor Holdings Berhad

Tan Chong P/B Ratio	
Present Value of Expected Dividends	0.06368
Present Value of Terminal Price	0.13076
Value of Equity	0.19

From the table 12, it indicates that the company's estimated P/B ratio calculated using equation 2.21 will be presented as follow:

Estimated PBV ratio = PV Expected Dividends + PV of Terminal Price

= 0.06368 + 0.13076 = 0.19

Thus, the value of Tan Chong Motor based on the P/B ratio is 0.19

After obtaining the expected value of Tan Chong Motor based on P/B multiple, we can compared it to the current value of Tan Chong Motor to make an investment decision.

Table 13. P/B Ratio of Tan Chong Motor Holdings Berhad

Tan Chong Motor P/B Ratio Comparison	
Expected PBV Ratio	0.19
PBV Ratio as per 31 December 2014	0.77
Decision	Overvalue / Sell

Based from table 13 above, we can conclude that expected value of Tan Chong Motor is 0.19, which is lower than the current value of the firm using the same multiple, hence the logical decision is to sell because it has experience overvalue..

Discounted Cash Flow

Discounted cash flow is basically a method to measure a firm's worth by calculating the company's future free cash flow with several assumption and discount it to obtain the present value of the firm's. The more value the DCF calculated the better, because it means the company will perform better on the future time based on its cash flow.

PT Indomobil Sukses Internasional Tbk Intrinsic Value

Table 14. PT Indomobil Sukses Internasional Tbk. Key Assumptions

No.	Description	Value	Information
High Growth Period			
1.	Sales growth	3.0%	Gaikindo target vehicle sales on 2020 (1,971,000 unit)
2.	Operating expenses as a % of revenues	8.25%	Average from historical data (2009-2014) period
3.	Growth rate in depreciation and capex	3.0%	Gaikindo target vehicle sales on 2020 (1,971,000 unit)
4.	Working capital as % of revenues	2%	Average from historical data (2009-2014) period
5.	Corporate Tax	25%	Based on PWC Indonesian Pocket Tax Book 2015
6.	Beta	0.78	6 years monthly data (2009-2014 period)
7.	Risk-free rate	8.48%	Surat Utang Negara (SUN) Yield-to-Maturity 19 years
8.	IHSG Market return	18.29%	IHSG market return in 2014
9.	Market risk premium	9.81%	Market return – Risk-free rate
10.	Cost of Debt	9.5%	Firm's average interest rate for long term loans in 2014 with A rating from Pefindo
Stable Growth Period			
11.	Perpetuity growth	2.57%	Indonesia forecasted GDP growth from National Economic Committee data (year 2020-2030 period)

12.	Capex as a % of depreciation	150%	Estimated Capex based on firm performance
13.	Beta in the stable period	1	Stable companies become less risky and use more debt, thus the beta move towards 1 (Damodaran, 2012)

After determining the assumptions and variable needed, now the author's will be calculating the free cash flow, terminal value, and the estimated intrinsic value of PT IMAS using discounted model. Free cash flow represents the amount of cash flow after the firm's has met all its operating activity and investment. The next step would be determining terminal value by certain period with the perpetuity growth using risk free rate as a proxy and free cash flow each year that already forecasted.

Table 15. Estimated Intrinsic Value of PT Indomobil Sukses Internasional Tbk.

Free Cash Flow of PT Indomobil Sukses Internasional Tbk	
Free Cash Flow on High Growth	IDR 3,760,513,271,193
Discounted Factor (WACC) in High Growth	12.17%
Present Value of High Growth	IDR 2,538,988,455,886
Free Cash Flow of Terminal Value	IDR 11,334,561,534,515
Discounted Factor (WACC) in Stable Growth	13.38%
Perpetuity Growth	2.57%
Present Value of Terminal Value	IDR 4,704,550,046,948
Value of the Firm	IDR 7,234,538,502,834

Table 16. Free Cash Flow of PT Indomobil Sukses Internasional Tbk.

Intrinsic Value of PT Indomobil Sukses Internasional Tbk	
Value of the Firm	IDR 7,234,538,502,834
Book Value of Debt	IDR 5,271,119,667,308
Number of Shares Outstanding	2,765,278,412
Intrinsic Value/Share	IDR 713
Market Price/Share as per 31 December 2014	IDR 4,000
Recommendation	Overvalue/Sell

Based on the calculation above, the weighted average cost of capital (WACC) is 12.17% and the perpetuity growth is 2.57%. The estimated share value from the calculation amounting to IDR 713, while the market value per share of PT IMAS at 31 December 2014 as presented from (www.finance.yahoo.com,2015) is IDR 4,000. It can be concluded that the share value of PT IMAS had experienced overvalued and the better things to do is to sell them.

Tan Chong Motor Holdings Berhad Intrinsic Value

Table 17. Tan Chong Motor Holdings Berhad Key Assumptions

No.	Description	Value	Information
	High Growth Period		
1.	Sales growth	2.27%	MAA target vehicle sales on 2019 (743,925 unit)
2.	Operating expenses as a % of revenues	12.55%	Average from historical data (2009-2014) period
3.	Growth rate in depreciation and capex	2.27%	MAA target vehicle sales on 2019 (743,925 unit)
4.	Working capital as % of revenues	-26%	Average from historical data (2009-2014) period
5.	Corporate Tax	25%	Bank National Malaysia
6.	Beta	1.1	6 years monthly data (2009-2014 period)

7.	Risk-free rate	4.32%	Malaysian Government Security (MGS) Yield-to-Maturity 20 years
8.	IKKL Market return	16.10%	IKKL market return in 2009-2014
9.	Market risk premium	11.79%	Market return – Risk-free rate
10.	Cost of Debt	4.70%	Firm's Yield-to-Maturity on Medium Term Notes
Stable Growth Period			
11.	Perpetuity growth	5%	Malaysia forecasted GDP growth from Economic Development Plan data (year 2020-2030 period)
12.	Capex as a % of depreciation	150%	Estimated Capex based on firm performance
13.	Beta in the stable period	1	Stable companies become less risky and use more debt, thus the beta move towards 1 (Damodaran, 2012)

After determining the assumptions and variable needed, now the author's will be calculating the free cash flow, terminal value, and the estimated intrinsic value of Tan Chong Motor using discounted model. Free cash flow represents the amount of cash flow after the firm's has meet all its operating activity and investment. The next step would be determining terminal value by certain period with the perpetuity growth using risk free rate as a proxy and free cash flow each year that already forecasted.

Table 18. Estimated Intrinsic Value of Tan Chong Motor Holdings Berhad

Free Cash Flow to the Firm of Tan Chong Motor Holdings Berhad	
Free Cash Flow on High Growth	MYR 517,205,311
Discounted Factor (WACC) in High Growth	13.36%
Present Value of High Growth	MYR 358,719,526
Free Cash Flow of Terminal Value	MYR 4,701,178,090
Discounted Factor (WACC) in Stable Growth	12.51%
Perpetuity Growth	5%
Present Value of Terminal Value	MYR 2,317,175,955
Value of the Firm	MYR 2,675,895,481

Table 19. Free Cash Flow of Tan Chong Motor Holdings Berhad.

Intrinsic Value of Tan Chong Motor Holdings Berhad	
Value of the Firm	MYR 2,675,895,481
Book Value of Debt	MYR 1,010,119,000
Number of Shares Outstanding	652,808,000
Intrinsic Value/Share	MYR 2.41
Market Price/Share as per 31 December 2014	MYR 3.28
Recommendation	Overvalue/Sell

Based on the calculation above, the weighted average cost of capital (WACC) is 13.36% and the perpetuity growth is 5%. The estimated share value from the calculation amounting to MYR 2.41, while the market value per share of Tan Chong Motor at 31 December 2014 as presented from (www.finance.yahoo.com,2015) is MYR 3.28. It can be concluded that the share value of Tan Chong Motor had experienced overvalue and the preferred things to do is to sell them.

Sensitivity and Scenario Analysis

Sensitivity analysis also known as scenario analysis, what-if analysis, or bop (best, optimistic, pessimistic) method is a technique to measure an impact on particular dependent variables as a result of testing different values of independent variable under given assumptions. Sensitivity analysis in this section will illustrates the impact of several factors which closely related with assumptions we made before calculating intrinsic value using discounted cash flow approach.

Sensitivity Analysis of PT Indomobil Sukses Internasional Tbk.

Table 20. Sensitivity Analysis of PT Indomobil Sukses Internasional Tbk.

WACC Sensitivity Analysis		
Market Value/Share par 31 December 2014		IDR 4,000
	WACC change	Value/Share
Optimistic	9.00%	IDR 804
Base	12.17%	IDR 713
Pessimistic	18.00%	IDR 577
Perpetuity Growth Sensitivity Analysis		
	Market Value/Share par 31 December 2014	IDR 4,000
	Perpetuity growth change	Value/Share
Optimistic	3.57%	IDR 723
Base	2.57%	IDR 713
Pessimistic	1.57%	IDR 704
Annual Sales Growth Sensitivity Analysis		
Market Value/Share par 31 December 2014		IDR 4,000
	Annual sales growth change	Value/Share
Optimistic	5.00%	IDR 1,057
Base	3.00%	IDR 713
Pessimistic	1.00%	IDR 398
COGS Growth Sensitivity Analysis		
Market Value/Share par 31 December 2014		IDR 4,000
	COGS growth change	Value/Share
Optimistic	84.00%	IDR 2,269
Base	87.00%	IDR 713
Pessimistic	90.00%	IDR (843)

As shown as table 20, it suggest that discount rate (WACC) do have an effect to the estimated share price. WACC ranges from 10% to 18% are using benchmark of Indonesia market risk premium and IHSG market return as optimistic and pesimistic border respectively. The forecasted share price ranges from IDR 577 with a WACC of 18%, to IDR 775 with a WACC of 10%, assuming all the others factors such as perpetuity growth, annual sales growth, and COGS growth constant. WACC reflects the changing in interest rates and market risk. The estimated share price ranges from IDR 704 to IDR 723, when the perpetuity growth changes from 1.57% to 3.57%, as a reasonable range of GDP growth, assuming all other factors constant. The perpetuity growth or stable growth are reflecting the changing in future economic condition which has a considerable impact on assuming terminal growth of a firm. The annual sales growth range from 1% to 5%, with consideration of PT IMAS low performance in 2014, and still within the limits set by Gaikindo of 7% growth each year. Furthermore, a projected intrinsic value per share from IDR 398 with a annual sales growth of 1%, to IDR 1,057 with annual sales growth of 5%, assuming all other factors constant. The high growth period is reflecting the ability of the company to generate sales, has a high impact to the estimated share price. On COGS sensitivity analysis, COGS range from 84% to 90% is a measures if the exchange rate will improve with increase of car components made in the country, while 90% of COGS will reflect the opposite situation. The estimated share prices ranges from - IDR 843 to IDR 2,269, when the COGS growth rate changes from 90% to 84% assuming all other factors constant.

COGS growth rate reflecting the impact of exchange rate of currency, which affecting the prices of raw material needed for the manufacturing process.

Table 21: Sensitivity Analysis PT Indomobil Sukses Internasional Tbk

PT Indomobil Sukses Internasional Tbk. Scenario Analysis	
Scenario	Value/Share
All Optimistic	IDR 5,216
All Expected (Base)	IDR 713
All Pessimistic	IDR (1,403)

Table 20. Scenario Analysis of PT Indomobil Sukses Internasional Tbk.

All optimistic scenario are using all the optimistic assumptions on table 20. PT IMAS will be assume to have annual sales growth of 5.00%, which are surpassing the expected growth rate of 3.00%, an assumptions where the government will back the automobile industry with supporting regulations such as lower down payment or lower tax rates for manufacturing business. The terminal growth or perpetual growth set at 3.57%, one percent higher than forecasted GDP growth of Indonesia. The company also set to have an optimistic percentage of COGS, with 84% percentage, considering the condition which exchange rate of IDR towards USD will become better due to strengthening of Indonesian Rupiah or weaker USD exchange rate. Furthermore, the optimistic scenario also utilizing a 9.00% WACC as discount rate, reflecting lower risk to invest to the firm. After the multiple sensitivity analysis combined, it will resulted in an intrinsic value of IDR 5,216 per share for PT IMAS. This result is greater than the market price as per 31 December 2014 of IDR 4,000.

In pessimistic scenario, it is assumed that all the sensivity analysis will be at their pessimistic value. The firm will be expected to have a 1.00% annual sales growth, much lower than base assumptions of 3.00% growth rate each year or Gaikindo projection of 7.18% rate for automobile industry until 2020. This might happen if the company failed to growth and experienced a lower market share due to intense market competion. The perpetual growth will set on 1.57%, lower than projected Indonesia economic growth by National Economic Committee. The cost of good sold also set to the pesimistic side of 90% of percentage of sales. A bad condition where the global economic still slowing down with higher exchange rate of USD, resulting in increase cost of imported raw material necessary of manufacturing vehicles. WACC as discount rate also at it's highest point of 18.00%, reflecting a higher risk of the firm. After the pessimistic side of sensitivity analysis combined, it will resulted in a negative number of intrinsic value at – IDR 1,403, lower than the market price as per 31 December 2014 of IDR 4,000 due to higher expenses and lower earnings.

Based on the table 21 and analysis above, the intrinsic value of PT Indomobil Sukses Internasional Tbk. using discounted cash flow method, are in the range of – IDR 1,403 to IDR 4,220. Altough there is any indiciation that the firm could be undervalued or overvalued regarding the changes in sensitive assumptions, the possibilites of the firm to be undervalued are small and too optimistic. Being so, the recommendation of this research regarding PT IMAS would be still at overvalued condition, thus investors are advised to sell their shares or at least hold their position to observe further development of economic and company condition.

Sensitivity Analysis of Tan Chong Motor Holding Berhad

Table 22. Sensitivity Analysis of Tan Chong Motor Holdings Berhad

WACC Sensitivity Analysis		
Market Value/Share par 31 December 2014		MYR 3.28
	WACC change	Value/Share
Optimistic	4.50%	MYR 2.56
Base	13.36%	MYR 2.41

Pessimistic	16.10%	MYR 2.38
Perpetuity Growth Sensitivity Analysis		
Market Value/Share par 31 December 2014		MYR 3.28
	Perpetuity growth change	Value/Share
Optimistic	6.00%	MYR 3.01
Base	5.00%	MYR 2.41
Pessimistic	4.00%	MYR 1.81
Annual Sales Growth Sensitivity Analysis		
Market Value/Share par 31 December 2014		MYR 3.28
	Annual sales growth change	Value/Share
Optimistic	3.20%	MYR 2.74
Base	2.20%	MYR 2.41
Pessimistic	1.20%	MYR 2.10
COGS Growth Sensitivity Analysis		
Market Value/Share par 31 December 2014		MYR 3.28
	COGS growth change	Value/Share
Optimistic	78.00%	MYR 3.76
Base	80.00%	MYR 2.41
Pessimistic	82.00%	MYR 1.06

As shown as table 22, it suggest that discount rate (WACC) do have an effect to the estimated share price. The forecasted share price ranges from MYR 2.38 with a WACC of 16.10%, to MYR 2.56 with a WACC of 4.50%, assuming all the others factors such as perpetuity growth, annual sales growth, and COGS growth constant. WACC reflects the changing in interest rates and market risk and estimated by considering the country market risk premium, interest of deposit, and IKKL market return. The estimated share price ranges from MYR 1.81 to MYR 3.01, when the perpetuity growth changes from 4% to 6% assuming the reasonable range of future economic growth and all other factors constant. The perpetuity growth or stable growth are reflecting the changing in future economic condition which has a considerable impact on assuming terminal growth of a firm. Furthermore, a projected intrinsic value per share from MYR 2.10 with a annual sales growth of 1.20%, to MYR 2.74 with annual sales growth of 3.20%, assuming all other factors constant. The high growth period range from 1.20% to 3.20% considering the sales will be better with supplement from improving Laos and Vietnam market demand or worse as the economy slow down, and reflecting the ability of the company to generate sales, has a high impact to the estimated share price. On COGS sensitivity analysis, COGS range from 84% to 90% is a measures if the exchange rate will improve with decrease trend of imported car components, while 90% of COGS will reflect the opposite situation. On COGS sensitivity analysis, the estimated share prices ranges from MYR 1.06 to IDR 3.76, when the COGS growth rate changes from 82% to 78% assuming all other factors constant. COGS growth rate reflecting the impact of exchange rate of currency which affecting the prices of raw material needed for the manufacturing process.

Table 23. Scenario Analysis of Tan Chong Motor Holdings Berhad

Tan Chong Motor Holdings Berhad Scenario Analysis	
	Value/Share
All Optimistic	MYR 5.69
All Expected (Base)	MYR 2.41

All Pessimistic	MYR 0.68

The table above shows us the scenario analysis using the four set of sensitivity analysis as shown as table 22. The base case scenario are using the expected outcome which is the result of applying discounted cash flow method as presented in table 19, therefore the base case will be not explain even further.

All optimistic scenario are using all the optimistic assumptions on table 4.22. Tan Chong Motor will be assume to have annual sales growth of 3.20%, which are surpassing the expected growth rate of 2.20% and higher than what Malaysia Automotive Association projected. This scenario might happen if the government will back the automobile industry with supporting regulations such as lower down payment or lower tax rates for manufacturing business. The terminal growth or perpetual growth set at 6.00%, the same number of forecasted GDP growth of Malaysia based on Malaysia Economic Transformation Program (ETM). The company also set to have an optimistic percentage of COGS, with 78% percentage, considering the condition which exchange rate of MYR towards USD will become better due to strengthening of Malaysian Ringgit or weaker USD exchange rate. Furthermore, the optimistic scenario also utilizing a 4.50% WACC as discount rate, reflecting lower risk to invest to the firm. After the multiple sensitivity analysis combined, it will resulted in an intrinsic value of MYR 5.69 per share for Tan Chong Motor Holdings Berhad. This result is greater than the market price as par of 31 December 2014 of MYR 3.28..

In pessimistic scenario, it is assumed that all the sensitivity analysis will be at their pessimistic value. The firm will be expected to have a 1.20% annual sales growth, lower than base assumptions of 2.20% growth rate each year. This situation might happen if the company failed to growth further and experienced a lower market share due to intense market competition in Malaysia or in other countries they operate in. The perpetual growth will set on 4.00%, lower than projected Indonesia economic growth by Malaysia ETP. The cost of good sold also set to pemistic side of 82% of percentage of sales. A bad condition where the global economic still slowing down with higher exchange rate of USD, resulting in increase cost of imported raw material necessary of manufacturing vehicles. WACC as discount rate also at it highest point of 16.10%, reflecting a higher risk of the firm. After the pessimistic side of sensitivity analysis combined, it will resulted in a negative number of intrinsic value at MYR 0.68, lower than the market price as par of 31 December 2014 of MYR 3.28 due to higher expenses and lower earnings.

Conclusions

According to Bank Indonesia annual report, Indonesia's household consumption and investment have been relatively high which have created a market opportunity for domestic industry, in particular for automobile industry. Automobile industry has experienced a growth rate of 10% from 2-12 to 2013 which was the highest growth percentage of automobile industry in Southeast Asia. Currently, one of the biggest players in Indonesia automobile industry is PT Indomobil Sukses Internasional Tbk. (PT IMAS) which was established in 1976. Tan Chong Motor Holdings Berhad (Tan Chong), a Malaysia based automobile company is chosen to be the peer firm due to its similar characteristics and the comparable market condition with Indomobil's. This thesis examines the financial performance of PT IMAS and Tan Chong from 2009 to 2014 using several methods such as industry, trend, Compound Annual Growt Rate (CAGR), cross-section analysis, common size, and DuPont formula analysis. This research also attempt to value those two companies using established valuation approaches such as relative multiple and discounted free cash flow models.

The result conclude that the financial performance of PT IMAS and Tan Chong have been struggling due to not conductive economic and industry situations in the year of 2009 to 2014. In the past 6 years, both companies performance was affected by the global economic condition due to the global financial crisis (GFC). In 2009, has caused the weakening of USD exchange rate, global economic condition, nad foreign capital inflows to Indonesia and Malaysia. However, PT IMAS and Tan Chong still experienced a significant growth of revenues and net income due to improving domestic economic condition and lower expenses of imported raw material. This growth continued up to 2013 when the exchange rate of USD showed improvement. This affected PT IMAS badly,

which reflected on their lower sales growth than previous years. The same condition did not apply to Tan Chong as their revenue growth increased due to strong domestic car sales and the improvement of Vietnam's automobile market, where Tan Chong has their investment. Thus, in 2014 both companies experienced a negative sales growth resulting in losses for PT IMAS and lower net income for Tan Chong.

Additionally, there is also a non-financial factor affecting the performance of both companies. The most notable external factor was in 2011 with Thailand floods and earthquake in Japan, resulted in considerable dislocation of supply chains. Fortunately, PT IMAS lower performance as the effect of both disaster only felt especially in second quarter of 2011 and the situation rapidly became normal in July 2011 as the net income increase by 80% from previous year. PT IMAS also had the advantage from supportive domestic economy condition, attributed to low inflation, flat Bank Indonesia interest rate, and the tremendous size of domestic market with strong consumer purchasing power. Whereas Tan Chong had received greater impact as their net income decrease by 6% from previous year. A greater losess had been avoided by the firm due to pacing sales and fast response by having alternative sources of auto company supply. Furthermore, from 2012 until now, PT IMAS had experienced decrease in net income because the intense market competition, where the firm increase the advertising and sales promotion cost to regain market share. PT IMAS rent division also took a hit in recent years due to declining trend of mining industry, the biggest consumer of the firm heavy equipment and trucking rent, thus attributing to the company's losess from subsidiary. Overall, from 2009 to 2014, Tan Chong still performed better than PT IMAS relatively.

Next, this research values the firms using relative valuation and discounted cash flow model. This thesis uses Price to Sales (P/S) and Price to Book (P/B) multiple methods and discounted free cash flow to value the firms. The relative valuation methods show that Indomobil's expected P/S is 0.00153 and P/B is 0.13. The current P/S and P/B of PT IMAS are 0.57 and 1.93 repectively which indicating that PT IMAS is overvalued. For the case of Tan Chong, the expected P/S is 0.11 and P/B is 0.19, whereas the current P/S and P/B are 0.45 and 0.77 respectively hence the firm are also overvalued. Using discouted free cash flow model with detailed and careful estimation and assumptions of input parameters, the intrinsic value of PT IMAS is IDR 713 per share. The value is lower than PT IMAS's market share price as per 31 December 2014 which was IDR 4,000 per share. Therefore, confirming the relative valuationresult PT IMAS is overvalued. Using the same free cash flow model, the intrinsic value of Tan Chong is MYR 2.41 per share. This value is also lower than Tan Chong's market share price as per 31 December 2014 which was MYR 3.28 per share. Hence, the similar results of PT IMAS, Tan Chong also overvalued. Finally the sensitivity and scenario analysis shows that the intrinsic value of PT IMAS and Tan Chong have a possibility to exeperienced undervalued to overvalued, regarding to change in several sensitive assumption. PT IMAS intrinsic value range from IDR 4,240 to –IDR 1,403 if all the assumptions of WACC, perpetuity growth, annual sales growth, and COGS growth are optimistic and pessimistic respectively. Tan Chong intrinsic value range from MYR 5.29 to MYR 0.68 if all the assumptions of WACC, perpetuity growth, annual sales growth, and COGS growth are optimistic and pessimistic respectively..

Recommendation

After examining the financial performance and valuation of PT IMAS and Tan Cong, this thesis offer two suggestions to improve the financial performance of the firms. First they should diversify their revenues stream with the aim to generate alternative and additional earnings. For PT IMAS, the firm could expand their market to infrastructure as Indonesian government currently shifting the cost of oil subsidyto infrastructure development as stated by Ministry of Communication and Informa (kominfo.go.id, 2015). For Tan Chong, the firm could expand their financial services and automobile after sales services, following their manufacturing, retail, and workshop which already established in several emerging Asean country such as Vietnam and Laos. Second, they should reduce the cost of goods sold to increase operating efficiency and cost effectiveness. To achieve such state, both

companies may focus their manufacturing productions on fuel efficient cars, which is Low Cost Green Car (LCGC) for Indonesia market and Energy Efficient Vehicles (EEV) for Malaysia market. This is due to the competitive costs in this region, which resulting in cheaper production base and larger market opportunities.

For further research, it is suggested to examine firms financial performance and value by employing other approaches such as Economic Value Added (EVA) which could measure the economic value of the firm and ability to create value for shareholders. Altough this method might not consider time value of money it might give a different analysis on the economic value of the firms.

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