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Research paper

Capital Structure Changes Prior and Post Initial Public Offering: Empirical Evidence from the Indonesia Stock Exchange

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Abstract

The changes in capital structure following Initial Public Offering (IPO) is expected to improve the financial performance of the company, but post IPO capital structure is not enough to provide certainty that the company will have a better financial performance. The evaluation of the financial performance of the company following IPO has become one of the focuses of attention both from managers and investors. This study aims to analyze the capital structure changes for non-financial companies listed on the Indonesia Stock Exchange prior and post IPO using t-test analysis, and descriptive statistics analysis of Net DER prior and post IPO both for overall market and individual industry. The data sample includes 74 non-financial companies conducting IPO in the period of 2003 until 2012. The capital structure measurement adopted in this study is net debt-to-equity ratio (Net DER) and this study evidenced that for overall market, there is a significant decrease of average Net DER following IPO. On the other hand, this study evidenced that for overall market, the median Net DER stayed at around 0.3 following the IPO, which showed that following IPO the companies utilized their additional debt capacity to go back to their pre-IPO level.

Keywords: *Capital Structure; Indonesia; Non-Financial Public Companies; Post IPO; Prior IPO.*

1. Introduction

The composition of debt and equity that will generate the highest profitability to the companies remains to be one of the debate and controversy in corporate finance literature. The debate started since the introduction of Capital Structure Irrelevance Theory by Modigliani & Miller (1958) (MM Theory). The theory asserted that in tough competition and frictionless world, the proportion of debt and equity has no effect on companies' value. This implies that the companies' value is independent of its capital structure. The expansion of MM Theory led to the introduction of other capital structure theories, which includes among other Trade-Off Theory (TOT) and Pecking Order Theory (POT). The TOT asserts that companies have an optimal capital structure and in its effort to achieve optimal capital structure, the company can increase its debt level as long as the tax benefits is greater than the cost of bankruptcy [1]. While POT asserts that the companies are said to follow POT when the companies prefer to use internal financing than external financing and when the external financing is chosen, the companies will issue external debt, as the safest security, first and equity as a last resort.

The research on Indonesia Stock Exchange (IDX) is interesting as the Indonesian capital market has shown an outstanding performance in the middle of the global economic slowdown. The capital market performance is supported by the strengthening economic fundamentals and prudent fiscal management. Jakarta Composite Index recorded a 6.64% increase of Compounded Annual Growth Rate (CAGR) from 2007 until 2015. The increase of JCI CAGR was contributed mainly by the increase of consumer goods industry sector of 21.46% CAGR and finance sector of 12.88% CAGR.

The increasing IDX market capitalization is resulting from among others; the increasing number of listed companies, new shares issued and share price, which is a factor of companies' performance and companies' valuation. Loughran, Ritter & Rydqvist [2] found that the increasing number of issuers was significantly correlated to market valuation in major markets across the worlds. The increase of IDX market capitalization is supported by the cooperation between IDX and Indonesia's Financial Services Authority (OJK) with extended trading hours, smaller lot size to increase trading liquidity, online trading platform and simplified issuance procedures. The companies are said to be a listed companies when the companies initially offer the shares to the public, commonly known as IPO.

IPO has always been an interesting research topic for decades as it involves several phenomena that are still puzzling [3]. There are several reasons why companies decide to go for IPO among others increasing the company's size and industry's market-to-book ratio [4]. The IPO is one of the ways for the companies to generate a relatively large amount of funds from the capital market. Proceeds generated will then be used by the companies among others to finance its working capital, capital expenditure and refinancing of debt, for its business expansion. Following the IPO, the companies are bound to comply with more rules and regulations imposed by the regulators. This includes the cost of complying with regulatory

requirement that can be very high, i.e. yearly costs of OJK, IDX and yearly public expose. Some of other additional costs include the preparation of financial reporting documents, annual reports, audit fees, and investor relation division. Through the IPO, the company generates the IPO proceeds, which increases the company's cash and equity, and directly changing the company's capital structure. Additionally, Dudley and James [5] highlighted that the common assumption to the leverage changes are largely result of managerial discretion at the time of the IPO. The changes in capital structure post IPO is expected to improve the financial performance of the company, however post IPO capital structure is not enough to provide certainty that the company will have a better financial performance. Therefore, the evaluation of the financial performance of the company following IPO has become one of the focuses of attention both from managers and investors.

1.1. Research Questions

Following the discussion of the background, the following research questions were formulated:

1. How does the capital structure change post IPO?
2. How does the cash position change post IPO?
3. How does the total interest bearing debt position change post IPO?
4. How does the equity position change post IPO?

1.2. Research Variables

To answer the research objectives on capital structure changes post IPO, this study performed t-test analysis, and analysed the descriptive statistics of net debt-to-equity ratio prior and post IPO both for overall market and individual industry. Generally, the capital structure is measured by leverage, calculated by debt-to-equity ratio (DER). However, unlike the previous studies, which adopts DER as a measurement of capital structure, this study adopts net debt-to-equity ratio, calculated by dividing total interest bearing debts less cash and cash equivalent with book value of equity (Net DER). The use of Net DER is constituted by: firstly, the analysis would be more relevant if one considers the cash position of the companies compared as the companies with large debts are not necessarily in a position of liquidity or solvency worse than the companies with smaller debt. Secondly, from valuation perspective in mergers and acquisitions transactions, net debt is more relevant than debt because the investor does not buy the company's cash. The use of Net DER is also supported by Damodaran [6], which asserted that there is no conceptual problem with net debt approach, but for the calculation purpose, it should remain consistent. The Net DER is set in accordance with the company's funding necessity with the consideration of among other, macroeconomic, company's financial condition and the imposed rules and regulations.

1.3. Hypothesis

The aforementioned leads to the formulation of the following alternative hypothesis as follows:

Alternative Hypothesis 1:
H_{A1}: There is a significant difference of capital structure following IPO.

2. Literature Study

IPO is an offer to buy shares by a private company to the public for the first time pursuant to the method provided under the capital market law. Following an IPO, there will be a change of status of the company, from private company to public company. This increases the responsibility of the management to improve its performance as the public including the companies' competitors will be able to see through the companies' financial position. Through IPO, the company is able to generate a relatively large amount of funds from the capital market to finance its working capital, capital expenditure and refinancing its debt, for its business expansion.
Kaya [7] studied the long-run impact of IPO market timing on capital structure. The sample of the study consists the companies conducting IPOs from 1 January 1981 until 31 December 20014, collected from the Securities Data Company. The study found that following IPO, the companies start increasing their leverage.
Ikhsan [8] examined the companies' performance prior and post IPO. The sample of the data includes 22 non-financial companies conducting IPOs on the IDX from 2001 until 2004. The study found that following IPO, the companies' performances are worst off than prior IPO.
Alti [9] analyzed the capital structure implications of equity market timing. The sample of the data consists of the companies conducting IPOs from 1 January 1971 until 31 December 1999. The study found that in the IPO year hot-market companies experienced a great decline in their leverage ratios and immediately following IPO, hot-market companies start issuing significantly more debt and less equity than cold-market companies.

3. Empirical Results and Discussion

To answer the research objectives on capital structure changes post IPO, this study performed t-test analysis, and analysed the descriptive statistics of Net DER prior and post IPO both for overall market and individual industry.
As of 30 December 2015, there were a total of 521 listed companies. The companies that qualified for this study must meet the following criteria: 1) the listing periods for the company are 2003 until 2012, 2) availability of the yearly financial statements for 2 years prior IPO year, IPO year and 3 years after IPO year, and 3) the companies must not classified into finance industry.
After the screening process, the number of non-financial companies studied is 74 companies. The data is collected from the companies' official website, prospectus and Bloomberg database.

3.1. T-Test Analysis

Overall Market The result of the study for the overall market is shown in Table 1.

Table 1: T-test Result: Prior and Post IPO

	Average Net DER	
	Prior IPO	Post IPO
Mean	0.9374	0.3925
P(T<=t) two-tail	0.0465	

Table above shows that the average Net DER prior IPO is 0.9374 decreased significantly to 0.3925 post IPO. It also shows that the p-value $0.0465 \leq 0.10$, hence null hypothesis is rejected and conclude that there is a significant difference of capital structure following IPO.

3.2. Descriptive Statistics

Table 2 shows that the Net DER has a mean of 0.6649, median of 0.3068, maximum value of 28.1577 and minimum value of -1.6116. This shows that the companies' net debt is 66.49% of its book value of equity.

Table 2: Descriptive Statistics: Prior and Post IPO

	NET DER Prior and Post IPO
Mean	0.6649
Median	0.3068
Maximum	28.1577
Minimum	-1.6116
Observations	444

3.3. Differences of Net DER Prior IPO and Post IPO Analysis

Following the descriptive statistics analysis for Net DER prior and post IPO, this study analysed the capital structure changes prior and post IPO for overall market and individual industry.

3.3.1. Overall Market

Table 3 shows that prior IPO, Net DER has a mean of 0.9374. This implies that net debt is 93.74% of its book value of equity. For Post IPO, the net debt is 39.25% of its book value of equity.

Table 3: Difference Test Prior and Post IPO: Overall Market

	NET DER	
	Prior IPO	Post IPO
Mean	0.9374	0.3925
Median	0.3599	0.2640
Maximum	28.1577	13.3511
Minimum	-0.7782	-1.6116
Observations	222	222

Table 3 shows that the Net DER has a maximum value of 28.1577 and minimum value of -1.6116. The maximum value was contributed by the Net DER prior to IPO, while the minimum value was contributed by the Net DER post IPO, as shown by Table 56. The descriptive statistics for prior and post IPO showed that Net DER for prior and post IPO has a mean of 0.6649, prior IPO 0.9374 and post IPO is 0.3925. The finding of the study showed a significant decrease of average Net DER from 0.9374 prior IPO to 0.3925 post IPO. The IPO increases the companies' equity and cash and hence decreases the companies' Net DER.

For the median, the finding showed that the Net DER median for prior and post IPO is 0.3068, prior IPO 0.3599 and post IPO 0.2640. Regardless of IPO, the median for Net DER stayed at around 0.3, which showed that 0.3 is the sweet spot for the companies in managing their debt structure. Following IPO, the companies' Net DER decreased and this created rooms for additional debt. The companies used this opportunity to increase their debt back to the pre-IPO Net DER level. Further evidence is provided by Kaya (2013) and Alti (2006), where the companies start increasing their leverage after conducting IPO.

To further understand the capital structure changes post IPO, considering that the average Net DER can be driven up and down by the maximum and minimum value, this study adopted both mean and median analysis. To run the analysis, this study used the Net DER mean and median average for 2 years prior IPO and the IPO year and compared it with the Net DER median post IPO; t+1 (one year following IPO year), t+2 (two years following IPO year) and t+3 (three years following IPO year).

3.3.2. Mean Analysis

Net DER

Figure 1 shows that there was a significant decrease of 58.12% from pre-IPO of 0.94 to post-IPO of 0.39. The lower average Net DER following IPO showed that one of the driving factors for companies to do IPO is to improve their risk profiles hence lowering the companies' probability of default. However, taking a closer look at the individual year following IPO, following the IPO, the companies utilized their additional debt capacity, moving it back to its pre-IPO level.

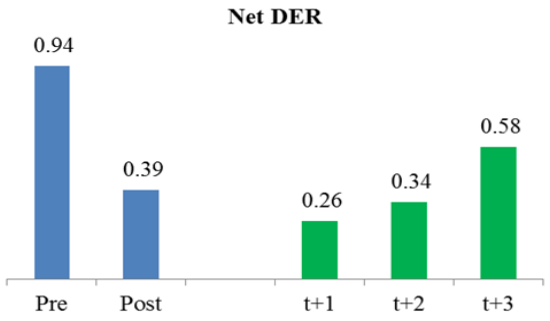

Fig. 1: Net DER changes post IPO: mean analysis

The component of Net DER consists of cash, total interest bearing debts and equity. To further analyse the pattern of median Net DER whether it is mainly caused by the movement in cash, total interest bearing debts and/or equity, this study also performed an analysis for the three components of cash, total interest bearing debts and equity.

Cash

Figure 2 shows that there was a significant increase of cash of 122.33% from pre-IPO of IDR 387,189 million to post-IPO of IDR 860,829 million. The increased of cash from pre IPO to t+1 shall come mainly from the IPO proceeds.

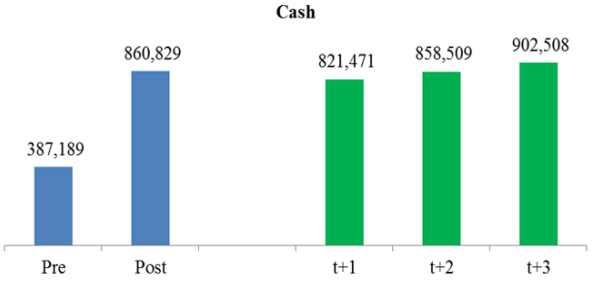

Fig. 2: Cash changes post IPO: mean analysis

There are three sources of cash that is cash from operating, investing and financing activities. The increased of cash from t+1 to t+3 shall come from cash from operating activities that is the result of net profit or loss of the company. From the figure above, on average the companies took longer to disburse the IPO proceeds into working capital and/ or capital expenditure.

3.3.3. Total Interest Bearing Debts

Figure 3 shows that there was a significant increase of 77.12% from IDR 921,993 million to IDR 1,633,059 million. Taking a closer look at the individual year following IPO, the figure below showed an increasing pattern from year to year. The significant increase took place from pre to t+1 with 40.15% from IDR 921,993 million to IDR 1,292,211 million.

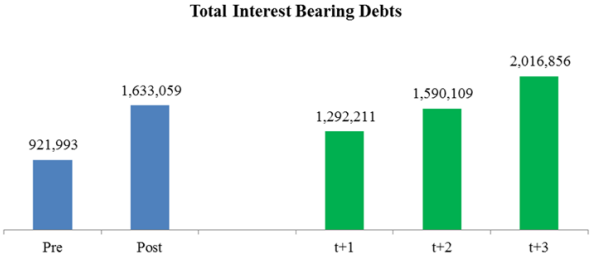

Fig. 3: Total interest bearing debts changes post IPO: mean analysis

The plausible explanation for the increasing pattern of total interest bearing debt is the increased equity creates more room for the companies for additional debt and the companies utilized this additional debt capacity.

Equity

Figure 4 shows that there was a significant increase of 157.50% from IDR 155,754 million to IDR 401,060 million. This shall be explained by the increase of equity resulting from IPO.

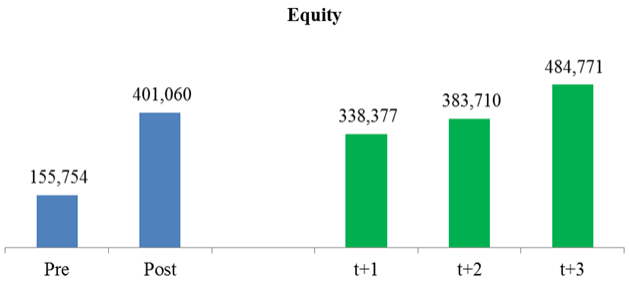

Fig. 4: Equity changes post IPO: mean analysis

Taking a closer look at the individual year following IPO, the figure above showed an increasing pattern from year to year. The plausible explanation is the increased of equity from the net result of the companies' profit or loss.

3.3.4. Median Analysis

Net DER

Figure 5 shows that there was a decrease of 26.66% from pre-IPO of 0.36 to post-IPO of 0.26. The lower average Net DER following IPO showed that one of the driving factors for companies to do IPO is to improve their risk profiles hence lowering the companies' probability of default, however taking a closer look at the individual year following IPO that is not necessarily the case. Figure below showed that a decreasing Net DER did not happen every year, in fact in t+3 the Net DER increased and moved closer to the pre-IPO level. The decrease of Net DER in t+1 and t+2 shall be explained by the payment of short term loan using the IPO proceeds. The payment of short term loan in t+1 and t+2, which reduced Net DER, was followed by the increase of debt by utilizing an additional debt capacity in t+3 moving closer back to its pre-IPO level. The finding suggests that the 0.3 is the sweet spot for the Net DER.

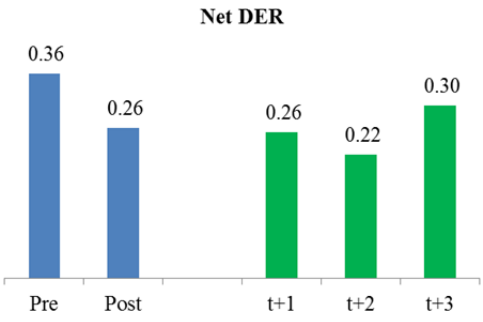

Fig. 5: Net DER changes post IPO: median analysis

Cash

Figure 6 shows that there was a significant increase of cash of 170.43% from pre-IPO of IDR 56,903 million to post-IPO of IDR 153,883 million. The increased of cash shall come mainly from the IPO proceeds. However, taking a closer look at the individual year following IPO, the cash movement did not follow an increasing pattern. After t+1, the amount of cash decreased significantly and then gradually increased in t+3.

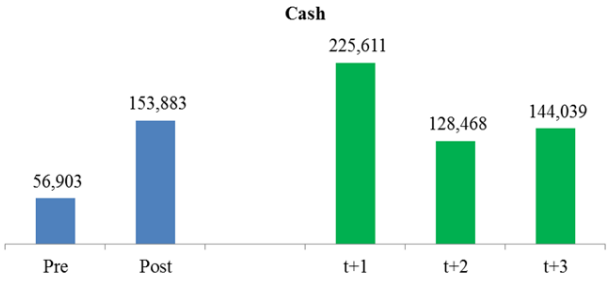

Fig. 6: Cash changes post IPO: median analysis

For the movement from t+1 to t+2, the amount of cash decreased to IDR 128,468 million, or a decrease of 43.06%. The decrease of cash shall be explained by the investing activity undertaken by the companies that is the capital expenditure. Financing capital expenditure using the IPO proceed is one of the financing sources generally used by the companies. The plausible explanation for the significant decrease from t+1 to t+2 is the disbursement of IPO proceeds for the capital expenditure started one year after the IPO. Furthermore, an increase of 12.12% from t+2 to t+3 shall be explained by the increase of cash from operating activities, net result of the companies' profit or loss.

Unlike mean analysis with increasing pattern following IPO, the cash median decreased one year after the IPO. It showed that the average IPO cash proceeds disbursement distorted by small number of companies with large capitalization. This is supported by the Figure 6, which shows that the IPO cash proceeds disbursement for the median company took place within one year following IPO. This finding cannot be obtained from the mean analysis.

3.3.5. Total Interest Bearing Debts

Figure 7 shows that there was a significant increase of 75.46% from IDR 226,337 million to IDR 397,129 million. Taking a closer look at the individual year following IPO, similar to the mean analysis, the figure below shows an increasing pattern from year to year.

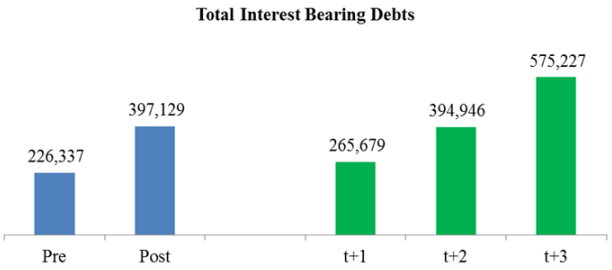

Fig. 7: Total interest bearing debts changes post IPO: median analysis

The significant increase of debts took place in t+2, where the total interest bearing debts increased from IDR 265,679 million to IDR 394,496 million, or an increase of 48.66%. The plausible explanation is the increased equity creates more room for the companies for additional debt and the companies utilized this additional debt capacity.

Equity

Figure 8 shows that there was a significant increase of 58.26% from IDR 22,138 million to IDR 35,036 million. Taking a closer look at the individual year following IPO, similar to the mean analysis, the figure below shows an increasing pattern from year to year. The plausible explanation is the increased of equity from the net result of the companies' profit or loss.

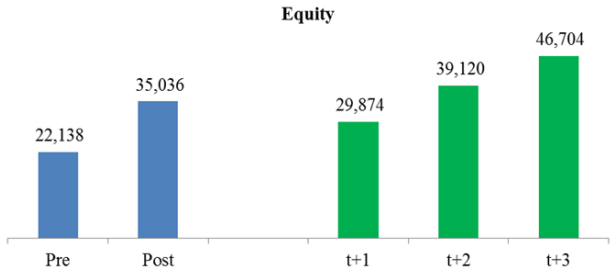

Fig. 8: Equity changes post IPO: median analysis

Figure 8 shows that years following IPO, there was an increasing equity. A significant increase of equity happened in t+1 with an increase of 30.95% from IDR 22,138 million to IDR 29,874 million. The equity increased shall be explained by the IPO, which increased the cash and equity of the companies.

3.4. Individual Industry

3.4.1. Agriculture Industry

Table 4 shows the Net DER mean for agriculture industry prior IPO 0.9531 and post IPO 0.5200. The lower average of Net DER post IPO implied that the companies are aimed at improving their risk profile.

Table 4: Difference Test Prior and Post IPO: Agriculture

	NET DER	
	Prior IPO	Post IPO
Mean	0.9531	0.5200
Median	0.6324	0.3872
Maximum	3.4311	1.6482
Minimum	-0.1619	-0.2697
Observations	18	18

Following IPO, the finding of the study suggest that the companies operating in agriculture industry did not utilize its additional debt capacity as shown by lower median post IPO. The lower average of Net DER post IPO implies that the companies are aimed at improving the risk profile of the companies. Table 4 shows that following IPO, the median of the companies is lower. This shall be explained by the characteristic of agriculture industry of financing through equity instead of debt. The companies classified in agriculture industry are the companies with business activities of plantation. These companies experience a long period of planting stages, with a risk of disappointing planting result, before the companies can start selling the plants. During the planting stages, there will be no cash inflow to service debt. The characteristic of agriculture industry are more suitable to finance through equity as the equity financing does not require monthly debt payment but the return on equity.

3.4.2. Basic Industry and Chemicals

Table 5 shows the Net DER mean for basic industry and chemicals prior IPO 1.0707 and post IPO 0.5007. Following IPO, the finding of the study suggested that the companies operating in basic industry and chemicals are aimed at improving their risk profile.

Table 5: Difference Test Prior and Post IPO: Basic Industry and Chemicals

	NET DER	
	Prior IPO	Post IPO
Mean	1.0707	0.5007
Median	0.7223	0.4768
Maximum	2.8623	1.5100
Minimum	-0.2826	-0.1818
Observations	21	21

The lower median value suggested that the companies did not attempt to utilize their additional debt capacity after IPO. The companies classified under basic industry and chemicals are the companies that demand on the improvement of the existing plant or build new plant or lease machinery and equipment/s to increase their sales volume. These companies have the options to finance its business activities through investment capital expenditure or working capital. Furthermore, the lower median value shall be explained by the companies' preference towards equity financing than debt financing. The plausible explanation is for the building of new plant, during the period of the study, the plant is not ready for use, therefore no cash inflow to service the additional debt for the new plant.

3.4.3. Consumer Goods Industry

Table 6 shows the Net DER mean for consumer goods industry prior IPO 0.4345 and post IPO 0.3734. Following IPO, Net DER decreases due to the increase of cash and equity. The finding of the study suggested that following IPO the companies attempt to improve its risk profile. Consumer goods companies have the characteristic of among others heavy in account receivables and inventory. To increase their sales, these companies also have the characteristic of financing from debt for their working capital, as shown by the slight decrease of Net DER post IPO.

Table 6: Difference Test Prior and Post IPO: Consumer Goods

	NET DER	
	Prior IPO	Post IPO
Mean	0.4345	0.3734
Median	0.4602	0.1774
Maximum	1.3662	1.2488
Minimum	-0.4145	-0.2009
Observations	12	12

The lower median value suggested that the companies did not attempt to utilize additional debt capacity following IPO. This shall be explained by the diversity of the business activities of the consumer goods companies' sample of this study. The sample of the consumer goods companies in this study consisted of four companies, each carry different product categories. The companies are engaged in bottled water business, over-the-counter business, food/ snacks business and cigarette business with characteristics as follow:

- Bottled water business.

Bottled water business has the characteristic of high competition and strong products distribution. Bottled water consumers buy bottled water for various reasons, including convenience. The consumers are not brand specific but they must be available at various places. Wide distribution network and strong distribution channel will result in a steep increase of revenue generated. From the data collected, the company's average Net DER increased following IPO. This implies that following IPO, the company increases its net debt for its business expansion.

- Food/ snacks business.

The food/ snacks business has the characteristics of heavy in marketing and advertising and strong products distribution. Consumers have an expectation and appreciation for the freshness and the ingredients of the foods, which varies upon their individual experiences and liking. From the data collected, the company's average Net DER increased following IPO. The finding suggested that in debt structure decision, the company is more focusing on the potential high growth expansion and/ or capital expenditure than improving their risk profile.

- Over-the-counter (OTC) business.

OTC business is heavy in marketing and advertising expenditures account receivable and inventory. The consumer buy OTC

products for a variety of reasons, including taste, products benefit and convenience. The company has to do a frequent marketing and advertising activities to increase product knowledge and product awareness. From the data collected, the company's average Net DER increased following IPO. It showed that the companies did not attempt to improve their risk profile. Lower median post IPO showed that following IPO, the companies did not utilize their additional debt capacity. This shall be explained by the unfavourable market condition for aggressive expansion and/or to increase market share.

- Cigarette business.

Cigarette business has the characteristics of a regulated business, high competition and heavy in marketing and advertising. Cigarette consumers purchasing behaviour are typically exhibit a habitual buying behaviour and are loyal to a particular brand. The habitual buying behaviour emphasize the importance of the positioning and advertising to consumer. From the data collected, the company's average Net DER stayed at a certain debt level and the median lowered following IPO. This showed that the company did not attempt at improving their risk profile and did not utilize an additional debt capacity following IPO. One of the plausible explanations is that the market is not in favour to support the aggressive expansion and/or the increase of market share.

3.4.4. Infrastructure, Utilities and Transportation Industry

Table 7 shows the Net DER mean for infrastructure, utilities and transportation industry prior IPO 1.0042 and post IPO 0.7558. Following IPO, the finding of the study suggested that the companies operating in infrastructure, utilities and transportation industry are aimed at improving their risk profile.

Table 7: Difference Test Prior and Post IPO: Infrastructure, Utilities and Transportation

	NET DER	
	Prior IPO	Post IPO
Mean	1.0042	0.7558
Median	0.4096	0.4969
Maximum	6.3054	2.9978
Minimum	-0.3133	0.0123
Observations	42	42

The increase median value suggested that the companies utilized the additional debt capacity post IPO. The sample of the companies for infrastructure, utilities and transportation industry consist of several companies with different product categories. The companies are engaged in tower business, toll road business, marine vessel business and transportation business. The increase of median value post IPO contributed by the increase of median from tower and marine vessel business.

For marine vessel companies, the companies utilized its debt to lease the ships from the vendor to do their business operations. Due to high investment capital expenditure, generally these companies lease their vehicles instead of owning it. If these companies only use their own equity, the fleet size will not reach the sufficient economies of scale. For tower companies, the companies utilized its debt to own and lease under a long term contract. Due to high investment capital expenditure, financing from equity only is not sufficient to meet the required business expansion by their telecommunication customers.

For airline and infrastructure companies, the data showed that approaching IPO, the Net DER decreased and gradually increasing following IPO. For airline companies, the IPO process includes debt restructuring, this is shown by the decreasing Net DER approaching IPO. Once the companies become public, the companies utilize its debt for business activities and expansion. For infrastructure companies, considering the large amount investment capital expenditure required, these companies generally use the project financing scheme with 30% equity and 70% debt. For infrastructure companies, the use of capital to build infrastructure project for the construction can take several years and the economic life of the project will spread into relatively long period (10 – 30 years). This is reflected by the increasing Net DER post IPO.

3.4.5. Mining Industry

Table 8 shows the Net DER mean for mining industry prior IPO 0.9302 and post IPO 0.4820. Following IPO, the finding of the study suggested that the companies operating in mining industry aimed at improving their risk profile.

Table 8: Difference Test Prior and Post IPO: Mining

	NET DER	
	Prior IPO	Post IPO
Mean	0.9302	0.4820
Median	0.2365	0.0771
Maximum	9.1366	13.3511
Minimum	-0.6590	-1.6116
Observations	36	36

The lower median showed that the companies did not utilize its additional debt capacity following IPO. The companies operating in mining industry require high investment capital expenditure, these companies generally use the equity financing scheme. This industry is cyclical in nature due to its product being a commodity. The commodity is cyclical based on the supply and demand mechanics. There are several plausible explanations for not utilizing additional debt capacity post IPO as follow:

1. Falling commodity prices: this caused the mining companies to lower their production capacity to manage their costs hence lowering their capital expenditure for expansion.
2. Increasing trend of non performing loan (NPL): as a result of the falling commodity prices, banking and financial institution seem to be reluctant in providing loans to the mining companies as the NPL of the companies' increases.
3. Emergence of renewable energy: the emergence of alternative power plants using renewable energy for fuel.

3.4.6. Miscellaneous Industry

Table 9 shows the Net DER mean for miscellaneous industry prior IPO 0.3435 and post IPO 0.3424. Following IPO, Net DER of the companies decreased as a result of increased cash and equity. The finding of the study suggested that post IPO, the companies attempt at improving their risk profile.

Table 9: Difference Test Prior and Post IPO: Miscellaneous

	NET DER	
	Prior IPO	Post IPO
Mean	0.3435	0.3424
Median	0.4899	0.3790
Maximum	0.6184	0.5446
Minimum	-0.1942	0.0776
Observations	6	6

The lower median value shows that the companies did not utilize additional debt following IPO. The plausible explanation is the companies did not require investment for capital expenditure, the increased debt following IPO required by the companies are possibly for working capital.

3.4.7. Property, Real Estate and Building Construction Industry

Table 10 shows the Net DER mean for property, real estate and building construction industry prior IPO 1.8321 and post IPO -0.0399. The finding of the study suggested that post IPO, the companies aimed at improving their risk profile.

Table 10: Difference Test Prior and Post IPO: Property, Real Estate and Building Construction

	NET DER	
	Prior IPO	Post IPO
Mean	1.8321	-0.0399
Median	0.2313	0.0129
Maximum	28.1577	0.3576
Minimum	-0.7782	-0.6446
Observations	39	39

Table above shows that the median value decreased from 0.2313 prior IPO to 0.0129 post IPO. This implies that the companies did not utilize its additional debt capacity following IPO. Generic expansion strategy for property companies is to acquire land bank for future development. Due to market situation, regulation, economic and infrastructure, the land bank development might be executed years after the land is acquired. Therefore, land bank acquisition mostly financed by equity. For the development stage, unlike other industries, the development financing is partially coming from the prospective buyer or supplier or contractor, hence the financing needed by the property companies are small relative to the project size.

3.4.8. Trade, Services and Investment Industry

Table 11 shows the Net DER mean for trade, services and investment industry prior IPO 0.3122 and post IPO 0.2792. The finding of the study suggested that post IPO, the companies aimed at improving their risk profile.

Table 11: Difference Test Prior and Post IPO: Trade, Services and Investment

	NET DER	
	Prior IPO	Post IPO
Mean	0.3122	0.2792
Median	0.2518	0.2791
Maximum	1.6275	2.3126
Minimum	-0.6035	-0.5403
Observations	48	48

The decrease of mean can possibly be explained by the size of the companies in the observations. The number of companies with relatively bigger equity is most probably the companies that are driving the mean value. After these companies conducting IPO, their Net DER decreased, driving down the average Net DER for the overall data sample. However, table above shows that the median value post IPO increased. It is implying that the companies utilized its additional debt capacity following IPO. This shall be explained by the relatively smaller companies (but more in quantity) in data sample utilizing their additional debt capacity quicker than the other relatively large capitalization companies.

4. Conclusion

For the average Net DER analysis, this study evidenced that for overall market the average Net DER decreased from 0.9374 prior IPO to 0.3925 post IPO, a significant decrease following IPO. This shall be explained by the proceeds from IPO, which increased the cash and equity of the companies, hence lowering Net DER. For individual industry, the study also evidenced that all industries showed a decrease of average Net DER following IPO. Therefore, it shall be concluded that both overall market and individual industry experienced a lower average Net DER following IPO. Take a closer look at the financial performance year by year following IPO; this study highlighted that following IPO, the Net DER gradually increasing back to its pre-IPO level.

For the Net DER median analysis, this study evidenced that for overall market the median stayed at around 0.3 following the IPO, which showed that following IPO the companies utilized their additional debt capacity to go back to their pre-IPO level. However, this study did not evidence the same result for the individual industry. The analysis for the individual industry showed varying result between industries with some showing a decreasing Net DER median and some showing an increasing Net DER median. The decreases of Net DER are evidenced in all industries except the infrastructure, utilities and transportation, and trade, services and investment industry. Take a closer look at the financial performance year by year following IPO, similar to the Net DER mean analysis, the Net DER gradually increasing back to its pre-IPO level.

Revisiting the criteria for shortlisting the sample used in this study, it is understood that the result of this study is dealing with the short term performance (for three years period) of the IPO. This short term performance study shall aids the managers and stake-holders in determining the immediate effect of the capital structure changes following IPO. This is crucial as the immediate effect of the IPO performance plays an important role for the managers' key performance index, investors' investment strategies, and regulators in ensuring the regulatory compliance.

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