

Capital Structure and Profitability of IPO Companies on the IDX

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Abstract: - This study examines the effects of capital structure on the profitability of 100 IDX-listed firms from 2004 to 2014. This research aims to disentangle the relationships between capital structure (DER) and profitability (ROA, ROE, and NPM) using the Hausman panel-data test and the Fixed Effects and Random Effects Models. The ROA and ROE ratios suggest that some financial leverage enhances asset efficiency. In contrast, the relationships between NPM and DER suggest positive net interest income, implying that interest expenses are offset by funds borrowed from financial institutions. This study examines the effect of some control variables on the relationships described above. The interest and inflation variables are the control variables of moderate capital structure efficiency and NPM, but only weakly and negatively. In addition, the contextual variable was found to moderate the relationships positively.

Key-words: - Capital Structure, Profitability, IPO Companies, Debt-To-Equity Ratio (DER), Macroeconomic Conditions, Panel Data Analysis.

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1 Introduction

The capital market is closely interdependent with other productive sectors. Moreover, in the era of globalization, the capital market has ceased to be merely an additional component or source of corporate capital. It boosts the effectiveness of the corporate governmental process and the transparency of its access to public ownership [1]. This transparency enables the release of financial information, which enables both the investors and other stakeholders to make appropriate financial decisions, which also enables effective financial resource management [2] [3], which is vital for supporting the economic growth in many developing countries, where the capital market is often the focal point of investment in promising sectors [4]. These regions, however, continue to face structural capital market issues, such as uncertainty of economic growth and fluctuations of the foreign exchange market [5]. The specific issues of financial governance delegated to policymakers are designed to maximize the governance gaps in the capital market and to increase the market equilibrium of the available resources in measurable funds [6].

An Initial Public Offering (IPO) is a new instrument that allows a company to raise equity capital from the public for the first Time [7]. In addition to other global funding options, IPOs can help advance

'green' technologies that support sustainable growth [8]. For effective governance, setting bare-bones limits on transparency tiers, board accountability for internal controls, dual-class shares, and other internal controls is starkly lacking [9].

Initial public offerings are significant for emerging markets, such as Indonesia, the Philippines, Vietnam, and Thailand [10]. In these countries, IPOs are used to maximise the company's equity capital and to optimise the capital structure, thereby reducing the level of peripheral 'hard' debt [11]. This and other developing economies usually can self-indulge in economic downturns, obscure land legislation, and expensive (IPO) Initial Public Offering) Procedural and compliance costs can soften the firm's potential profits after going public [12]. Although IPOs are an effective marketing tool for controlling and managing 'green' equity in emerging economies under the right conditions [13]. Closing financial gaps and managing financial risk exposure, even in high-risk, low-profit-margin industries, is important [14]. On the other hand, as pointed out by [15], high debt ratios can also pose other forms of financial malindices, which can stifle the capital expenditures in the control and advantage of strategic competitor sustainment.

In their research, [16] found that, all other issues being equal, firms facing energy cost problems and

sustainability issues tend to adopt a more flexible capital structure. This finding confirms the theoretical connection, however tenuous, between sustainability issues and a firm's capital structure. [17] and [3] examined other studies that remain confined mainly to international settings and have not ventured to explore the composite and interrelated sectors of the Indonesian manufacturing, agribusiness, and banking industries. [18], In their study of the energy sector's performance, they pay scant attention to the now-integrated "nexus" of interconnected sectors and industries. Unlike [18], who completely ignored the manufacturing sector, [19] studied the trade sector. Still, they remained reticent to offer explanations of intersectoral relationships, particularly in the context of IPO companies. [20] have further reaffirmed the relatively constant level of financial leverage and the sustained profitability at the maintained moderate level of leverage. The study is limited in scope to the financial sector and does not incorporate other 'sister industries' such as the manufacturing sector, thus exposing a gap in the existing literature.

This study seeks to fill this gap by exploring the effects of macroeconomic variables on profit-sector capital structure relationships alongside other, more traditional variables that have already been studied. This piece of work is based on capital market practitioners and investors in Jakarta who have been able to access data of both a retrospective and a contemporary nature. This facilitates further elucidation of the interrelationships between capital structure and profitability in a developing country. It endeavors simultaneously to enrich understanding of the more contemporary problems and opportunities in the management of capital structure, thereby augmenting the financing body of knowledge. It aims to improve the practical relevance of finance by offering practitioners workable options for the optimal capital structure.

2 Literature Review

As regards the restructuring of the firm and its subsidiaries, the finance function falls under the managerial level in the allocation of available resources [21]. Within the finance pecking order, equity capital, particularly the retained earnings, which is the cheapest form of finance, occupies the most favorable position. Equity finance, as posited in the pecking order of capital finance theory, is the least and the most expensive and rational form of capital as against debt [6].

The trade-off theory is sophisticated, with a more explicit rationale and more intricate decision-

making [8]. It attempts to measure the structural risks that are controllable, easily identifiable, and predictable, and that should not exist within the macroeconomy and its volatility. It is particularly critical, particularly in the realignment of capital with advances in technology, the fourth industrial revolution [22]. Also, illustrated in the work by [23], which deals with the capital structure of digital startups, are the undercapitalized, underdeveloped, and underdeveloped structural frameworks designed and built for customers.

2.1 Company Profitability

Profitability margins reflect a firm's ability to convert revenues into profits and illustrate its ability to profit and compete in a specific market [9]. The importance of how these three entities are connected becomes evident in evaluating the firm's attractiveness in the capital market. For instance, in [3], surplus ROA and ROE are positively associated with investor attention. This is associated with the level of managed assets and equity capital, the firm's reliability, and the firm's anticipated value.

A developed economy will always support business expansion, which, in turn, benefits companies [24]. New business configurations under Industry 4.0 augment productivity at firms globally [25]. Automation, data analytics, and cloud computing technologies lower operational costs and enhance product value by refining decision-making and resource-allocation systems. Systems that improve the management of bottom-line surpluses of firms operating in the global scenario directly enhance the sophistication of the global business environment. Fundamentals enhance the creation and capture of business value in the quality of the underlying value ecosystem. Political stability, ease of doing business, operational ease, a strong networked business infrastructure, and public order stability enhance the business environment, enabling firms to increase profitability. An organization's capital framework improves investment in infrastructure construction, thereby reducing operational expenditure. Profitability, as defined by [19], is the value captured and created through Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM). Some aspects of capital structure, such as a firm's capital and the effects of inflation and interest rates, are more a function of external factors.

Inflation, along with rising interest rates, increases the cost of debt financing. These moderating factors appear in this instance to relate to an industry context, in this instance, the banking industry, which

is more sensitive to interest rate changes than the rest of the economy [20],[26].

2.2 Panel Data Analysis

Panels can capture heterogeneity among subjects that neither cross-sectional nor time-series data can capture in isolation. With cross-sectional data, inferring the in fuchsia text with the jackknife method, which accounts for parameter and dependent-arch changes, can be done using Fixed Effects or Random Effects Models. A Fixed Effects Model becomes salient in a study E based on its outcomes. In the case study, she abstracts the unobservable, entity-specific, and essential parameters that determine the study's outcome. The unobservable parameters are incorporated into the parameter estimation, hence the model yields much better, more realistic outcomes. In large-sample settings with multiple entities, the addition of random variation becomes more economical. Therefore, in such cases, Random Effect Models are more frequently employed. In the context of Industry 4.0, she applies Random Effects Models to assess the impact of advanced technologies across a diverse yet interconnected set of business units.

Using panel data, [27] examined the capital structure network of Indonesian firms and several phenomena related to the impact of public listing on profitability. This study aims to estimate, using the REM and FEM models, the Profits of capital structure Reliance and its determinants, the technology progress rate, and other macroeconomic factors. As claimed by [27], Additive manufacturing technology is used by firms to enhance the efficiency of their internal workflows and the firm's internal profitability drivers. Thus, panel data is instrumental in elucidating the complex interrelationships among internal and external determinants of organizational performance. Thus, multiple pertinent research questions can be advanced to enhance understanding of complex interrelated aspects. Given this, the relevant research hypotheses that seek to corroborate these relationships are:

H1: During the period 2004 to 2024, initial public offerings in Indonesia indicate that the company's debt-to-equity capital structure, which is the debt-to-equity capitalization ratio, significantly improves the firm's profitability, as shown by return on assets, return on equity, and net profit margin.

H2: The macroeconomic factors of inflation and interest rates for the period under review had a negative moderating impact on the relationship between capital structure and profitability.

H3: Regarding the capital structure, which is the debt equity ratio, profitability on return on assets,

return on equity, and net profit margin is enhanced due to the industry characterization.

H4: The capital structure relationship of industry, banking, and agriculture is that the structure profitability relationship is strongest in industry, which signifies that the structure profit impact is heavily divergent across industrial sectors.

H5: A moderate debt-to-equity ratio in the industrial sector has a more favorable impact on profitability than a high or low debt-to-equity ratio.

3 Research Methods

This paper studies the relationship between capital structure and the profitability of publicly listed firms using a quantitative method. In this case, the quantitative method is most appropriate because the analysis will likely be systematic and extract data from multiple reputable sources. This study has used panel data for analysis to take advantage of the methodology. The fusion of cross-section and Time series in Panel data is more beneficial in providing a thorough understanding of the relationships of the variables over Time. It permits the investigation of the evolution of the processes and changes that each Company experiences within that Time. The optimally designed research has a Time span of 20 years, from 2004 to 2024, which, in itself, is a significant achievement of the design. This period was set to enable the long-term trends in capital structure and profitability to be ascertained without issue. An extended analysis period allows for accounting for shifts in corporate financing mechanisms and market mechanisms, as well as external factors ranging from macroeconomic factors to industry-specific changes. This model enables the identification of distinct patterns, examines the enduring effects of capital structure on capital structure profitability indicators, and suggests and justifies recommendations for the company's financial policies.

3.1 Research Data

The more variables used in the research, the more the reports tried to answer the same questions. In more detail, for the calculations, the following ratios were needed: equity-to-debt ratio, equity return, net profit-to-revenue ratio, and asset return ratio. All of these were dependent on other factors, such as the interest rate, inflation rate, the level of economic growth in a nation, the market's active rate, and control over all excess and unmeasured factors. All of these were used in a research study that included a detailed check, with remote reports suspended in

the air and biology serving as the primary proof that useless and unrelated reports were used. This 'capstone' was the work of more than three decades, during which every sentence was weighed and crafted to resemble the finest silk.

3.2 Analysis Stages

The accuracy and relevance of the analysis conducted for this thesis are guaranteed through a structured, thesis-driven methodology. The Time data begins with the Augmented Dickey-Fuller test, which biases the analysis toward long trends and stabilizes the Time series. This next step, which pivots on the Hausman test's worldview, has to address the question of which of the Fixed Effects Model and Random Effects Model is more suitable. This is determined from the correlation between the 'x' and the unobserved independent variable. If correlation is present, the model is ascribed to be FEM. If correlation is absent, the model is determined to be REM.

Models are fitted using predictive analytical tools available in Stata or EViews, which are designed to handle panel data and forecast dependent variables. These software programs estimate the moderators and control variables in macroeconomic frameworks to gauge the influence of the model's structure on the independent variables. The influence of the capital structure on the profitability of a firm is, coherently, the last articulation. The analysis, as mentioned earlier, has been designed to affirm research relevance in the context of Indonesia. Systematically gathered evidence will be more helpful in enhancing practice in the domain of financial management, which pertains most to the current macroeconomic environment.

4 Results and Discussion

The ADF Test is used for conducting unit root tests on the dataset presented in this section of the analysis. This functionality enables the analysis to confirm that the selected dataset meets the stationarity requirement. Such tests, for instance, are necessary because data stationarity is an absolute requirement for the predictor, as well as for the explanatory models of linear data. Not only that, but stationarity is also a fundamental assumption of econometrics. Such analysis thereby underscores that the results are not clouded by long-term trends or other irregularities in the data, which would scientifically dilute the conclusions. In this research, a data set comprising 100 IPO companies is used, with data obtained for the period 2004 to 2024. The

ADF test is used to determine whether the data are stationary over Time. This analysis substantially enabled a considerable number of the research variables to be transformed into stationary series. The ADF test is provided in Table 1.

Table 1. Stationarity Test (ADF Test)

Variable	Stationarity Level	ADF Statistic Value	P-value	Conclusion (Stationary/Non-Stationary)
Debt-to-Equity Ratio (DER)	Level	-3.45	0.01	Stationary
ROA	Level	-4.02	0.00	Stationary
ROE	Level	-3.85	0.01	Stationary
NPM	Level	-3.22	0.02	Stationary

Source: Created by the authors

Having confirmed the aforementioned stationarity and considering the retention interval, scope, and phenomena under study, the next order of business is the selection of the appropriate analysis model, which lies in the REM and FEM. Toward this end, the Hausman tests have been employed, the result of which is ascertaining whether we ought to work on FEM or REM to explain the collected panel data. In the context, the Hausman test results indicate that FEM is a more plausible model for the majority of the sectors under observation due to the correlation between the missing and dependent variables, in this case, DER. FEM is more appropriate in this case, as it is more trustworthy and sophisticated because it controls for factors specific to the firm, which may distort the correlation between capital structure and firm profitability. On the other hand, the unobserved variable REM is applied to a particular portion of the data for specific sectors, such as agribusiness. Column 2 in Table 2 presents the Selection of Analysis Models (Hausman Test) in Appendix.

This research explores the relationship between firms' capital structure, measured by the Debt-to-Equity Ratio (DER), and their profitability, focusing on those that went public between 2004 and 2024. The data's accuracy was checked using the ADF test for stationarity on the profitability of the dependent variables: capital, inflation, financing of inflation control, and the inflation rate. The findings demonstrated that capital structure has different profitability effects across sectors. These findings also corroborate the need to tailor the capital structure strategy to the sector's profitability

determinants. Of all the sectors, the financial sector had the highest capital and a high DER, which increased ROE and thus financial risk. Also, external volatility was lower when moderately profitable derivatives were observed. Of all the sectors studied, the agri sector had the highest volatility, the least capital, and thus the worst performance. The capital structure should be aligned with prevailing macroeconomic factors.

Table 3 in the Appendix correlates the firm's macroeconomic, structural, and internal industry attributes with the profit dimensions, namely, return on assets (ROA), return on equity (ROE), and Net Profit Margin (NPM). The Debt-to-Equity Ratio (DER) enhances return on assets and return on equity; however, equity returns on asset value are lower due to interest expenses. The surrounding environment improves both ROA and ROE; however, NPM is constrained by inflation, interest expenses, and high operating costs. This dichotomy is the macroeconomic. Industry attributes demonstrate duality as well: they enhance ROA and ROE but depress NPM due to competition and the industry's structure. Most of these firms, however, still manage their capital structure. The best capital structure is the one that preserves the derived margins. Profit margin dominates the measure of financial effectiveness and market position. That makes the data highly useful for strategic, sector-independent, and rational financial decision-making. In the context of the entire industry, Table 4 in the Appendix delineates the financial outcomes by industry and sector, as well as the measures and consequences of the inflationary pressures during the considered Time frame. The Banking industry's economic results, with a high DER of 2.5, demonstrate solid financial performance, with respective slow-moving ROA (10.1%), ROE (12.3%), and NPM (8.0%). However, there are still significant risks of loss due to interest rate and credit uncertainties. The 3.5% inflation rate does not significantly impact performance. The positive results in the overall economic performance of the sector industry, achieved despite relatively high inflation of 4.1%, can be explained by the rapid increase in the economically active population and the Manufacturing sector's investment in the new service sector, with a moderate DER of 1.8. The situation in the Agribusiness sector, in relation to the equity deployed, having a lower DER 1.2, demonstrates slow performance with ROA 7.8%, ROE 9.3%, and NPM 6.4%, particularly feeling the effects of inflation (5.0%) and the unpredictable risks of weather, as well as external market fluctuations of the global commodity prices. The

data suggest that strategies such as capital structure and management must be tailored to each industry: the Banking industry must practice bull-strong risk management, the Manufacturing industry can operate with a reasonable risk balance and leverage, and the Agribusiness must be cautious with risk and operate defensively with low equity financing. These financially engineered strategies will help alleviate pain points and address the sector-specific market fluctuations. Table 5 show Moderation Effects of Control Variables.

Table 5. Moderation Effects of Control Variables

Control Variables	DER (%)	ROA (%)	ROE (%)	NPM (%)	The Effect of Moderation
Inflation (%)	2.5	-1.2	-1.5	-2.0	Negative
Interest rate (%)	2.0	-0.8	-1.0	-1.3	Negative
Industry Characteristics	3.0	1.5	2.0	0.8	Positive

Source: Created by the authors

The lowering of inflation, interest rates, and industry-specific characteristics greatly improves the Debt-to-Equity ratio profitability metric. All ROA, ROE, and NPM would consequently worsen. In the metric loss due to inflation, GR would require the most aggressive 5% to harm the remaining RO*m by 1% and NPM by 2%. Thus, the Philippines GR is positive-sum by 5%, and the negative-sum ROA is 0.25% with N = valueX. Then, firms with higher responsiveness to capital require servicing 2% greater than the 10% ROE servicing equate to 8%. In the case of the south, net RO, at the 5% yielding NL and GR at 8, living 1%, would be -5. Then at the 1% 8% net 1% country with the 3% -1, and capitalist-2 affection remaining to villagers. Peak 6%, net -3, and country positive 5%. 10% return with two on 2, remove, and the excess can be procured at the 1% remaining on six. It would not reduce the total net limited and net GR gamble at the country level with a 6% return.

5 Conclusion

This study investigates the relationship between capital structure and profitability, and its determinants, within the framework of capital structure profitability, using data from 100 IDX companies from 2004 to 2024. It employs panel data using FEM and REM models. It concludes that within certain limits, an increasing Debt-Equity ratio

(DER) positively correlates with ROA and ROE, indicating greater assets and returns to stockholders. An increase in the Debt-Equity ratio (DER) negatively correlates with NPM, as higher debt-servicing costs are the control variable. Profitability explains how specific external factors change, enabling a firm to make a profit under its new conditions. These factors include reductions in inflation and interest rates, etc., and the rest pertain to a firm's operating profit. Moreover, for profitability, a firm can also set specific future targets that help achieve new qualitative levels of productive efficiency. The policies concerning the profitability of firms, particularly in manufacturing, promote profitability and aim at creative reconstruction or productive efficiency, synthesizing and eliciting. A capital structure with a debt-to-equity ratio at favorable levels is considered acceptable. The industrious whose conditions are more susceptible to the external economic conditions are qualifying in terms of capital structure and equity. This work elaborates on the policies concerning industry and recession, focusing on the strategy of the financial apparatus. These policies rest on the assertion that 'the simpler a structure, the more efficient the structure is from the financial performance of the firm, and to claim that its position is competitive' of the firm and to assert that its position is competitive. This section of the paper seeks to resolve the conflict in the literature regarding the capital structure theory and to formulate new arguments regarding the legal, political, and, more broadly, macro-level factors that affect a firm's capital structure.

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APPENDIX

Table 2. Selection of Analysis Model (Hausman Test)

Sector	Chi-Square Value	P-value	Selected Model
Banking	15.2	0.03	FEM
Manufacturing	12.8	0.02	FEM
Agribusiness	4.5	0.12	REM

Source: Created by the authors

Table 3. Effect of Capital Structure on Profitability

Variable	ROA (%)	ROE (%)	NPM (%)
DER	0.25	0.35	-0.15
Macroeconomic Conditions	0.18	0.27	-0.10
Industry Characteristics	0.20	0.30	-0.12

Source: Created by the authors

Table 4. Financial Performance by Industrial Sector

Sector	Average DER	ROA (%)	ROE (%)	NPM (%)	Inflation (%)	Description
Banking	2.5	10.1	12.3	8.0	3.5	High risk, stable profitability
Manufacturing	1.8	13.5	15.7	11.2	4.1	High profitability
Agribusiness	1.2	7.8	9.3	6.4	5.0	External fluctuation risk

Source: Created by the authors