

# Effect of Capital Adequacy Ratio, Non Performing Loan, Growth Opportunity and Capital Structure on Intrinsic Value of Companies in the Banking Sector with Profitability as an Intervening Variable

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## ABSTRACT

The research objective was to determine the effect of capital adequacy ratio, non performing loan, growth opportunity and capital structure on intrinsic value of companies in the banking sector with profitability as an intervening variable. The population in this study were 44 banking companies listed on the Indonesia Stock Exchange. The research sample consisted of 23 banking companies listed on the IDX for the 2009-2018 period. The method of analysis uses path analysis with AMOS software. The results show that capital adequacy ratio has a positive and insignificant effect on profitability, non performing loan has a negative and significant effect on profitability, growth opportunity has a positive and insignificant effect on profitability, capital structure has a negative and insignificant effect on profitability, capital adequacy ratio has a negative effect and significant on intrinsic value of companies, non performing loan has a negative and significant effect on intrinsic value of companies, growth opportunity has a negative and significant effect on intrinsic value of companies, capital structure has a positive and insignificant effect on intrinsic value of companies, profitability has a positive and significant effect on intrinsic value of companies, profitability is able intervening capital adequacy ratio, non performing loan and growth opportunity on intrinsic value of companies, profitability unable intervening capital structure on intrinsic value of companies.

**Keywords:** Capital Adequacy Ratio, Non Performing Loan, Growth Opportunity, Capital Structure, Profitability, Intrinsic Value of Companies

## INTRODUCTION

In carrying out the investment process, it is important for investors to calculate the value of the company they are investing in to ensure that the investment in the company will provide the returns that investors expect. The calculation of company value can be done by various methods and it will be different for a specific type of business such as banking as a result of the financial structure of a specific banking company compared to trading companies and industrial companies. The difference in the financial structure of a banking company in this regard can be seen from the composition of the banking company capital which is dominated by short-term and long-term debt originating from third party funds. Thus, the calculation of the value of a banking company cannot be carried out using the same method as calculating the value of the company in other sectors, although in the end it remains with the same objective, namely to be able to determine the value of the company which is the investment destination. The high value of the company or the potential to be high in the investment period will be a

consideration in making investment decisions to achieve the goal of increasing the prosperity of shareholders or stockholder wealth maximization (Brigham and Houston, 2013).

Bank Indonesia as the regulator of banking services sector companies always closely supervised the soundness of the banking system. Initially through PBI No.6/10/2004 and SEBI No.6/23/DPNP/2004 regarding the system for assessing the soundness of a commercial bank, which is used as a benchmark for assessing the soundness of a bank is by using the CAMEL ratio (capital, asset quality, management, earnings and liability). The use of the CAMEL ratio can also be used as a consideration for the value of a banking company. In line with developments in business conditions and current banking risk profiles through SEBI No.13/1/PBI/2011 and OJK Regulation No.4/POJK.3/2016 has also regulated the technical assessment of bank health using a risk-based bank rating with a coverage of several factors such as risk profile, good corporate governance (GCG), profitability (earnings), and capital.

Based on what has been explained previously, in general there are factors that affect the value of a banking company, specifically in the form of bank soundness in the form of capital adequacy ratio (CAR) and non-performing loans (NPL) and generally in the form of growth opportunity (GO), as well as profitability, while still considering the company's capital structure.

Capital is the main factor for a bank to be able to develop its business growth. Fulfillment of the bank's minimum capital adequacy ratio (CAR) is determined by the Bank for International Settlement (BIS) at 8%. CAR is a capital adequacy ratio that functions to accommodate the risk of loss that a bank may face. The higher the CAR, the better the bank's ability to bear the risk of any credit or risky earning assets. If the CAR value is high, the bank is able to finance operational activities and make a large enough contribution to profitability.

The calculation of the CAR ratio is obtained using the formula:  $\text{Capital/RWA} \times 100\%$ . For own capital consists of core capital (tier 1) and supplementary capital (tier 2), where the amount of supplementary capital that is calculated is a maximum of 100% of the amount of core capital. RWA itself is a risk weighted asset.

According to Darmawi (2011:16), the definition of non performing loan (NPL) is a measure of the bank's business risk ratio which shows the amount of non-performing credit risk that exists in a bank. Non-performing loans are caused by improper payments of loan principal and interest which can directly reduce bank performance and cause banks to be inefficient. From this statement, it can be concluded that the definition of NPL is a ratio to measure the amount of non-performing credit risk in a bank caused by customers' ineffectiveness in making payments. The size of the bank's NPL value affects the income and value of the banking company.

Growth opportunity (GO) is the growth opportunity of a company in the future Mai in (Hermuningsih, 2013). The opportunity for the high and low growth of a banking company in the future can be measured by the presence of GO data and of course it can be used by investors to determine investment decisions in a banking company. A high GO will have a positive effect on the value of the banking company. With a high GO, it is hoped that banking companies will generate high profits in the future and will increase the company's stock price as an indicator to assess the company. Companies that have a prediction of experiencing high growth in the future will prefer to use shares to fund the company's operations. Therefore, companies that have low growth opportunities will use more long-term debt (Febriyani and Srimindarti, 2010).

Profitability measures a company's ability to earn a profit relative to its sales, total assets and own capital (Sartono, 2001). The measurement of profitability uses a ratio consisting of profit margin, basic

earning power, return on assets and return on equity. According to Bukit (2012), company profit apart from being an indicator of the company's ability to meet its obligations for its funders, is also an element in creating company value that shows the company's prospects in the future. So it can be said that the achievement of the level of profitability in a company will affect the investment decisions of investors. A banking company that can achieve a high level of profitability is an indicator of the success of management in managing the company and will ultimately increase the value of the company, which will encourage investors to invest and increase the company's stock price.

In addition to the things that have been mentioned above, in the end the capital structure also has an important role in the value of a company, because the capital structure plays a role in improving and maintaining company performance. The company's capital structure is related to long-term company spending as measured by the ratio of long-term debt to equity (Sudana, 2012). Company management in order to be able to carry out a good capital structure strategy. Capital structure strategy decisions relate to the fulfillment of funding for the company which can come from internal and external sources. Fulfillment of internal funding raises an opportunity cost for the use of own funds, while the company's external sources of funds originating from debt will cause a capital cost in the form of interest charged by creditors.

Current data on banking work tends to improve, marked by an increase in assets of Rp652,057 billion year-over-year (yoy) in 2018 against 2017 and an increase of Rp676,910 billion when compared to the position in the first quarter of 2019 against the second quarter of 2018.

The increase in assets was followed by an increase in earning assets in the form of loans which grew by Rp.544,429 billion in the position of December 2018 against 2017, where banks were able to increase

credit distribution to third party funds or loan to deposit ratio (LDR) by 3.81% in March 2019 towards the achievement of the position in March 2018. Initially the increase in earning assets resulted in a decrease in CAR by 0.21% in line with the strategy to maintain a stable CAR position marked by an increase in capital, so that the CAR for the first quarter of 2019 improved back to 23.42% compared to with a position in December 2018 of 22.97%.

Increased lending can certainly suppress the decline in the percentage of gross NPL and Net NPL, which in March 2019 decreased by 0.16% and 0.08% compared to the position in March 2018. On the other hand, lending, but with a decrease in interest rates in line with the decline the interest rate for Indonesian bank certificates (SBI) caused the net interest margin (NIM) of banks to decline by 0.21% in March 2019 against the position in March 2018.

The research objective was to determine the effect of capital adequacy ratio, non performing loan, growth opportunity and capital structure on intrinsic value of companies in the banking sector with profitability as an intervening variable.

## **RESEARCH METHODS**

This research is a causality study where there is a relationship between two or more variables. The relationship in this research is a causal relationship between exogenous (free) variables, namely variables that affect endogenous (dependent) variables, namely variables that are influenced.

The population in this study were 44 banking companies listed on the Indonesia Stock Exchange. The research sample consisted of 23 banking companies listed on the IDX for the 2009-2018 period.

The method of analysis uses path analysis with AMOS software. The data analysis technique in this study uses structural equation modeling or what is called structural equation modeling (SEM). SEM is a set of statistical techniques that allow testing a series of relationships

simultaneously. Ferdinand (2006:7) states that SEM makes it possible to be able to answer both regressive and dimensional research (namely measuring what the dimensions of a concept are).

The variable indicator used by a model needs to be confirmed to find out whether it can correctly define a construct which is an unobserved variable. The test carried out is in accordance with the opinion of Bagozzi and Baumgartner (1994) that model testing is carried out to test whether the measurement model developed is truly fit in the presence of data or not.

## RESULT

### General Description

The results of the study used secondary data for Banking Sector Companies listed on the Indonesia Stock Exchange. The companies sampled in this study were 23 companies from 44 banking sector companies listed on the Indonesia Stock Exchange and met the research criteria in the 2009-2018 observation period.

### Descriptive Statistical Analysis

Descriptive statistical analysis is used to determine the description of a data seen from the minimum value, maximum value, average value (mean) and standard deviation values. In this study, the variables used in the descriptive statistical calculations are the capital adequacy ratio ( $X_1$ ), non-performing loans ( $X_2$ ), growth opportunity ( $X_3$ ), capital structure ( $X_4$ ), profitability ( $Y_1$ ), intrinsic value ( $Y_2$ ). Based on data, descriptive statistical analysis shows that the capital adequacy ratio ( $X_1$ ) has a total sample size of 230, a minimum value of 10.25, a maximum value of 44.62, an average value of 17.7293, and a standard deviation or standard deviation of 4.22859.

Non performing loans ( $X_2$ ) have a total sample size of 230, a minimum value of 0.01, a maximum value of 8.82, an average value of 1.5664 and a standard deviation or standard deviation of 1.14521. Growth opportunity ( $X_3$ ) has a total sample size of 230, a minimum value of -18.01, a

maximum value of 100.03, an average value of 16.8568 and a standard deviation of 15.15211. Capital Structure ( $X_4$ ) has a total sample size of 230, a minimum value of 3.21, a maximum value of -7.47, an average value of 7.8363 and a standard deviation or standard deviation of 3.81805. Profitability ( $Y_1$ ) has a total sample size of 230, a minimum value of -7.47, a maximum value of 6.81, an average value of 1.4293 and a standard deviation or standard deviation of 1.18587. The intrinsic value ( $Y_2$ ) has a total sample size of 230, a minimum value of 467605,86, a maximum value of 8089574179,89, an average value of 315783445,7030, and a standard deviation of 727274967,58423. Thus, the minimum value for a capital adequacy ratio ( $X_1$ ) is Bank Mayapada International Tbk. (MAYA) and the highest score is Bank Capital Indonesia Tbk. (BACA) for non performing loans ( $X_2$ ) the minimum value is at Bank Danamon Indonesia Tbk. (BDMN), and the highest score is Bank Rakyat Indonesia Agro Niaga Tbk. (AGRO). For growth opportunity ( $X_3$ ) the minimum value is at Bank MNC International Tbk. (BABP) in 2017 and the highest score is Bank Capital Indonesia Tbk. (BACA) 2009. Capital Structure ( $X_4$ ), the minimum value is Bank Woori Saudara Indonesia 1906 Tbk. (SDRA) in 2014, the highest score was Bank Mega Tbk. (MEGA) in 2018. Minimum profitability ( $Y_1$ ) is at Bank MNC International Tbk. (BABP) in 2017 the highest score was Bank Mega Tbk. (MEGA) 2015. For intrinsic value ( $Y_2$ ), the minimum value is Bank Rakyat Indonesia Agro Niaga Tbk. (AGRO) in 2012, the highest score was Bank Rakyat Indonesia (Persero) Tbk. (BBRI) in 2018.

### Analysis of Direct Effect, Indirect Effect, and Total Effect

Table 1. Standardized Direct Effects (Group Number 1 - Default Model)

	$X_4$	$X_3$	$X_2$	$X_1$	$Y_1$
$Y_1$	-.051	.042	-.326	.119	.000
$Y_2$	.012	-.295	-.147	-.123	.514

Source: Amos Output Data Processed Results, 2019

**Table 2. Standardized Indirect Effects (Group Number 1 - Default Model)**

	X <sub>4</sub>	X <sub>3</sub>	X <sub>2</sub>	X <sub>1</sub>	Y <sub>1</sub>
Y <sub>1</sub>	0,000	0,000	0,000	0,000	0,000
Y <sub>2</sub>	-0.026	0.022	-0.168	0.061	0.000

Source: Amos Output Data Processed Results, 2019

**Table 3. Standardized Total Effects (Group Number 1 - Default Model)**

	X <sub>4</sub>	X <sub>3</sub>	X <sub>2</sub>	X <sub>1</sub>	Y <sub>1</sub>
Y <sub>1</sub>	-.051	.042	-.326	.119	.000
Y <sub>2</sub>	-.014	-.274	-.315	-.062	.514

Source: Amos Output Data Processed Results, 2019

The results Table 1, 2, and 3 show that capital adequacy ratio has a positive and insignificant effect on profitability, non performing loan has a negative and significant effect on profitability, growth opportunity has a positive and insignificant effect on profitability, capital structure has a negative and insignificant effect on profitability, capital adequacy ratio has a negative effect and significant on intrinsic value of companies, non performing loan has a negative and significant effect on intrinsic value of companies, growth opportunity has a negative and significant effect on intrinsic value of companies, capital structure has a positive and insignificant effect on intrinsic value of companies, profitability has a positive and significant effect on intrinsic value of companies, profitability is able intervening capital adequacy ratio, non performing loan and growth opportunity on intrinsic value of companies, profitability unable intervening capital structure on intrinsic value of companies.

## CONCLUSION AND SUGGESTION

The results show that capital adequacy ratio has a positive and insignificant effect on profitability, non performing loan has a negative and significant effect on profitability, growth opportunity has a positive and insignificant effect on profitability, capital structure has a negative and insignificant effect on profitability, capital adequacy ratio has a negative effect and significant on intrinsic value of companies, non performing loan has a negative and significant effect on intrinsic value of companies, growth

opportunity has a negative and significant effect on intrinsic value of companies, capital structure has a positive and insignificant effect on intrinsic value of companies, profitability has a positive and significant effect on intrinsic value of companies, profitability is able intervening capital adequacy ratio, non performing loan and growth opportunity on intrinsic value of companies, profitability unable intervening capital structure on intrinsic value of companies.

Suggestions for research are:

1. To increase the company's intrinsic value, efforts to increase the company's operating profit are important for increasing profitability. In addition, positive economic and trading conditions on the stock market will encourage an increase in the company's intrinsic value because it is related to the cost of equity and the risk free rate component.
2. The assumptions on growth projections and changes in the value of the capital ratio in this study are still limited to the growth of company assets due to the limited data obtained. For further research, it is suggested that the company's growth projection is determined based on the company's financial analysis and the company's strategic development plan in the projection period so that the intrinsic value becomes more accurate.
3. All variables in this study show their partial and overall significance to the company's intrinsic value. For further research, it is hoped that other financial ratio variables can be added such as net interest margin (NIM), loan to deposit ratio (LDR), operating costs to operating income (BOPO), including the elements forming the value of cost of equity so that more precise and accurate intrinsic value is obtained accurate.
4. Further researchers are expected to be able to examine the intrinsic value of other sector companies listed on the Indonesia Stock Exchange.

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