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Analysis of the Influence of Institutional Ownership on Bank Capital in Indonesia

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Abstract

This study aims to find out how institutional ownership affects bank capital in Indonesia. Capital is a dependent variable in this study where capital is divided into Capital Ratio, Market Capital Ration, and tier 1 ratio. Independent institutional ownership is calculated by the amount of institutional ownership divided by the number of outstanding shares. In this study, there are five control variables, namely Market to Book, Size, Dummy, Profitability. This study uses a type of quantitative descriptive research with a dynamic panel data regression model using the Generalized Method Of Moment (GMM) estimation method. There are 47 banking companies in Asean that are the population in this study. The selection of population samples was carried out using the purposive sampling method, so that 31 banking companies were obtained that met the criteria as set by the researcher. This study uses secondary data in the form of annual financial publication reports of each bank. The results of the study showed that the independent variable of institutional ownership had a significant negative effect on the variable dependent Capital Ratio. Furthermore, it was obtained that the institutional ownership variable had a significant positive effect on the dependent Market Capital Ratio variable, and finally the institutional ownership variable had a negative and significant effect on the Tier-1 Ratio.

Keywords: Institutional Ownership; Capital Ratio; Market Capital Ratio; Tier-1 Ratio

1. Introduction

In 1997, weak corporate governance in Asia contributed significantly to the economic crisis in the region, characterized by a lack of financial reporting, lack of management oversight, and incentives for corporate efficiency. In Indonesia, poor corporate governance practices, such as the Century Bank case in 2008, have lowered investor confidence and triggered investment withdrawals. Good corporate governance (GCG) aims to create added value for all stakeholders and overcome agency problems. Institutional investors play an important role in capital market stability and management supervision. While there are variations in the impact of institutional ownership on financial performance, in general, greater institutional ownership is associated with better oversight and higher bank capital stability.

2. Literature Review

Agency Theory Explains that information asymmetry between shareholders (principals) and managers (agents) can lead to agency conflicts. This conflict occurs when the interests of managers and shareholders are not aligned, so an effective supervision mechanism is needed to reduce agency costs. Formed in 1975 after the dissolution of Hestatt Bank. Issuing Basel I, II, and III regulations to strengthen the stability of the global banking system. Basel III, designed after the 2008 crisis, emphasized on improving capital quality, liquidity provisions, and financial system stability. Institutional Ownership refers to the ownership of shares by institutions such as banks and pension funds, which have the capacity to influence the management of the company. Institutional ownership increases oversight and reduces agency issues, thus contributing to better financial stability and performance. Bank Capital Ratio is measures the adequacy of a bank's capital to cover risks. Regulations such as the Basel Accords set international standards to ensure banks have sufficient capital. Institutional ownership helps to increase this ratio through strict supervision. Tier-1 Capital Ratio is assesses a bank's capital strength by comparing core capital to risk-weighted assets. This ratio is important for bank stability and market confidence, with institutional ownership playing a role in oversight and reducing asymmetry information.

3. Methods

This research was conducted on banking sector companies that have gone public and are listed on the Indonesia Stock Exchange. Using purposive sampling with certain criteria, a total of 31 banks were obtained as samples. The type of data used in this study is quantitative data, or data in the form of numbers. The data in this study is quantitative because it is in the form of numbers and ratios from the company's financial statements. The data source is secondary data obtained from the company's annual financial statements, the OJK website and data streaming with LSEG/Reviniv. The data collection method is by the documentation method. The researcher obtained data from financial reports or data of banking companies listed on the Indonesia Stock Exchange for the 2014-2022 period.

Table 1. Variable Definition

Variable	Description	Source
Institutional Ownership	Institutional investor ownership expressed as a percentage of total outstanding shares *(inst/outstand)*	Own Estimation
Capital Ratio	General equity divided by total assets *(ceq/at)*	Refinitiv(LSEG)
Market Capital Ratio	Equity market value divided by bank market value: *(1-mkvalt/ (mkvalt+at-ceq))*	Refinitiv(LSEG)
Core Capital Ratio	Core capital to risk-weighted asset ratio *(capr1)*	Refinitiv(LSEG)
Market To Book	The market value of the bank is divided by the book value of the bank *(mkvalt+at-ceq)/at*	Own Estimation
Size (Bank Size)	Logaritma natural total aset: *ln(at)*	Own Estimation
Dividen Dummy	A dummy variable that is valued at 1 if the bank distributes dividends *(dvp)*, 0 if not	Own Estimation
Profitability	Income before tax divided by total assets: *pi/at*	Refinitiv(LSEG)

Source: Research Processed Data

Institutional ownership can be used as a tool to reduce agency conflict. A healthy corporate governance structure is an important indicator that creditors consider when determining the company's risk premium. According to agency theory, institutional ownership has an important role in minimizing agency conflicts that occur between managers and investors. If the company is owned by an institution or institution, then the supervision and controlling manager will be very strict [1]. The research of [2] states that banks with larger institutional ownership operate with much larger capital, and a positive relationship between institutional ownership and bank capital ratios. Institutional investors who make long-term investments with large stock ownership have a positive influence on the management of [3], the results of this study show that the influence of institutional ownership on bank capital will be more significant when institutional investors have a long-term orientation or when they own large shares. Thus, the hypothesis made is:

- H1: Institutional Ownership has a significant positive influence on the Bank's Capital Ratio. Institutional Ownership to Bank Market Capital Ratio

Institutional investors have supervisory and incentive capabilities to ensure that the company's management makes optimal decisions to improve the company's financial stability and value. This oversight can reduce management opportunistic behavior and ensure that decisions are made in the long-term interests of the bank. This efficiency in supervision contributes to improved financial stability and better risk management, which in turn can increase the bank's market capitalization ratio. Institutional investors tend to have better knowledge and resources to conduct in-depth risk analysis. Thus, they can direct bank management to avoid overly risky decisions that could harm the bank's financial stability [1]. Research by [2] found that banks with larger institutional ownership tend to have higher capital ratios. An increase of one standard deviation in institutional ownership was associated with a 1.3 percentage point increase in the capital ratio. Similarly, research conducted by [3] shows that institutional ownership can improve capital allocation efficiency and reduce information asymmetry, which positively affects the market capital ratio of banks. Thus, the hypothesis made is:

- H2: Institutional Ownership has a positive and significant influence on the Bank's Capital Ratio. Institutional Ownership to Core Capital Ratio of the Bank (Tier-1)

Institutional Ownership is calculated by the percentage of share ownership to the number of outstanding shares to see the concentration of Institutional Ownership in banks. Institutional ownership in the banking sector is often considered a key factor that can affect the financial stability and performance of banks. The core capital ratio (Tier-1) is one of the key indicators that reflects the bank's ability to absorb losses and support the growth of its assets. In accordance with the agency's theory of aligning

the interests of management with shareholders, institutional investors can urge the implementation of performance-based incentives for management. These incentives ensure that management focuses on improving the bank's performance and strengthening core capital. Institutional ownership can drive capital allocation efficiency by ensuring that funds are used for projects with a positive net present value (NPV). This efficiency can increase the profitability of banks and, indirectly, strengthen core capital [3]. [4] study shows that banks with significant institutional ownership tend to have more stable capital structures, including stronger core capital ratios. This research is also supported by the findings of [3] revealing that larger institutional ownership is empirically associated with better risk management and more optimal capital allocation in the banking sector, which has a positive impact on the core capital ratio. Thus, the hypothesis made is:

- H3: Institutional Ownership has a positive and significant influence on the Bank's Core Capital Ratio.

The data analysis method used in this study is dynamic panel data analysis with the Generalized Method of Moments (GMM) approach and using the Stata 17 regression tool. The equation is formulated as follows:

Model I
$$CAP = \beta 0 + \beta 1 CAPit\text{-}1 + \beta 1 Ownershipi,t + \beta 2 Sizei,t + \beta 3 MTBI,t + \beta 4 Divi,t + \beta 5 Profiti,t + ui,t$$

Model II
$$MCR = \beta 0 + \beta 1 MCRit\text{-}1 + \beta 1 Ownershipi,t + \beta 2 Sizei,t + \beta 3 MTBI,t + \beta 4 Divi,t + \beta 5 Profiti,t + ui,t$$

Model III
$$Tier\text{-}1 = \beta 0 + \beta 1 Tier\text{-}1it\text{-}1 + \beta 1 Ownershipi,t + \beta 2 Sizei,t + \beta 3 MTBI,t + \beta 4 Divi,t + \beta 5 Profiti,t + ui,t$$

Information

CAP   = Capital Ratio/ Rasio Modal

CAPit-1   = Capital Ratio

MCR   = Market Capital Ratio

MCRit-1   = Market Capital Ratio

Tier-1   = Tier-1 Ratio/ Rasio Modal Inti

TIER-1it-1   = Tier -1 Ratio

$\beta 0$ = Constant

$\beta 1$- $\beta 5$ = Regression Coefficient Ownership = Institutional Ownership Size = Size

MTB   = Market to Book Ratio

Div   = Dividen Dummy

Profit   = Profitability

ui,t = error term

4. Results

This study used observation data of 31 samples obtained using purposive sampling techniques. The results of descriptive statistical testing for all variables in this study are as follows:

Table 2 Results of Descriptive Analysis

Variable	Mean	Std. Deviation	Minimum	Maximum
Institutional Ownership	0,1901102	0,1656055	0,0110211	0,7937665
Capital Ratio	0,136442	0,050504	0,0253544	0,3838148
Market Capital Ratio	6,610658	1,55725	3,931944	10,59991
Core Capital Ratio	0,2032652	0,0830819	0,0609	0,6624
Market To Book	2,316313	5,437445	1.85e-10	71,48535
Size (Bank Size)	17,8894	1,628881	14,48428	21,41268
Dividen Dummy	0,3189964	0,4669252	0	1
Profitability	0,014638	0,0363267	-0,147	0,253

Source: Research Processed Data With Stata 17

Based on table 2, with N as many as 31 samples, the following results were obtained. The Institutional Ownership variable (Y) has an average value of 0.19, with the lowest value of 0.01 and the highest value of 0.79, while the standard deviation is 0.16.

The Capital Ratio variable (X1) has an average of 0.13 with the lowest Capital Ratio of 0.02 and the highest 0.38 from 32 observations, while the standard deviation is 0.05. The Market Capital Ratio (X2) variable has an average of 6.6 with the lowest Market Capital Ratio of 3.3 and the highest of 10.5 from 32 observations, while the standard deviation is 1.55. The Core Capital Ratio (X3) variable has an average of 0.20 with the lowest Core Capital Ratio of 0.06 and the highest 0.6 out of 32 observations, while the standard deviation is 0.08.
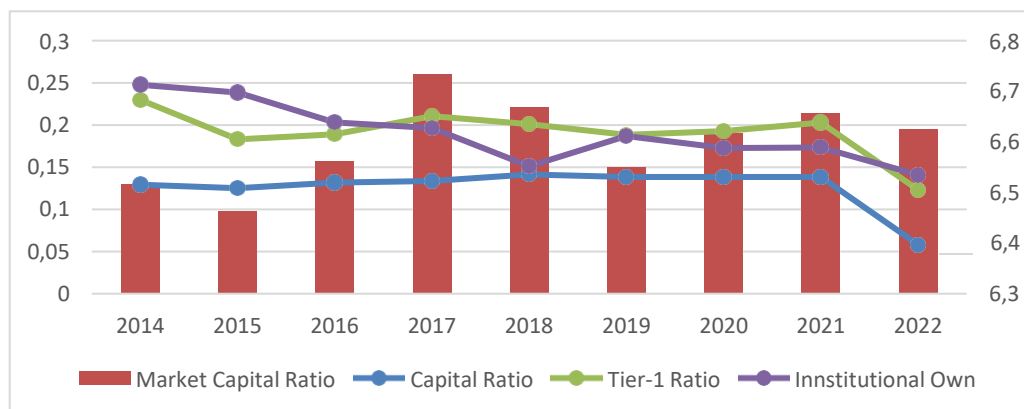

Figure 1 Movement of Capital Ratio, *Market Capital Ratio*, *Tier-1 Ratio*, and Institutional Ownership Variables for the 2014-2022 Period
Source: Research Processed Data With Ms Excel

The results of the test using the Generalized Method of Moment (GMM) show that the capital ratio of the previous period has a positive and significant effect on the current capital ratio. This means that an increase of one point in the previous capital ratio will increase the current capital ratio. In contrast, Institutional Ownership has a negative and significant effect on the Capital Ratio, contrary to research in America by [2] which shows a positive influence. This decrease in the capital ratio may occur because institutional investors often use leverage when buying bank shares, which leads to the increase in bank assets faster than the paid-up capital, thus lowering the capital ratio.

The test results show that the market capital ratio of the previous period has a positive and significant effect on the current market capital ratio. Any increase of one point in the previous market capitalization ratio will increase the current market capitalization ratio, according to the findings of [5] on banks in China. In addition, Institutional Ownership also has a positive and significant effect on the Market Capital Ratio, supporting the H2 hypothesis and in line with the research of [2]. Increased institutional ownership encourages the creation of more optimal corporate value, increasing the ratio of market capital to company value.

The estimation results show that the previous period's Tier-1 had a positive and significant effect on the current Tier-1. This means that the larger the previous Tier-1, the larger the current Tier-1, supported by optimal financial performance and strict regulation. These findings are consistent with the research of [6] in France. However, Institutional Ownership has a negative and significant effect on Tier-1, rejecting the H3 hypothesis. This indicates that the larger the Institutional Ownership, the lower the Tier-1 Ratio. This is due to pressure from institutional shareholders that encourages banks to take on greater risks, which could reduce Tier-1 Capital, in line with the findings of [2].

5. Conclusion

The Dependent Capital Ratio variable in the previous period has a positive and significant effect on the current dependent Capital Ratio variable in 31 banks in Indonesia in the period 2014 – 2022. Model I shows that the independent variable of Institutional Ownership has a negative and significant effect on the variable dependent Capital Ratio. The control variables Market to Book, Dummy, and Profitability have a positive and significant effect on the Capital Ratio. The Size control variable had a negative and significant effect on the Capital Ratio of 31 banks in Indonesia in the period 2014 – 2022. The Dependent Market Capital Ratio variable in the previous period has a positive and significant effect on the current dependent Market Capital Ratio variable in 31 banks in Indonesia in the period 2014 – 2022. Model II shows that the independent variable of Institutional Ownership has a positive and significant effect on the dependent variable of Market Capital Ratio. The control variables Market to Book and Size have a positive and significant effect on the Market Capital Ratio. The control variables Dummy, and Profitability had a negative and significant effect on the Capital Ratio of 31 banks in Indonesia in the period 2014 - 2022. The Dependent Tier-1 Ratio variable in the previous period has a positive and significant effect on the current dependent Tier-1 Ratio variable in 31 banks in Indonesia in the period 2014 – 2022. Model III shows that the independent variable of Institutional Ownership has a negative and significant effect on the dependent variable Tier- 1 Ratio. The control variables Dummy and Profitability have a positive and significant effect on the Market Capital Ratio. The control variables Market to Book and Size had a negative and

significant effect on the Tier-1 Ratio in 31 banks in Indonesia in the period 2014 - 2022.

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