

Capital Structure: Capital Buffer, Return on Equity, Capital Adequacy Ratio in Go-Public Banking in Indonesia

Muhammad Wahyudin¹, Marlina Widiyanti², Isni Andriana³, Isnurhadi⁴

¹ Student of Master Management, Sriwijaya University, Palembang, Indonesia

^{2*,3,4} Lecturer of Masters in Management, Economic Faculty, Sriwijaya University, Palembang, Indonesia

Email: ^{1*}dewadin_010410005@yahoo.co.id, ²marlinawidiyanti68@yahoo.co.id,

³isni.andriana@gmail.com, ⁴isnurhadi@unsri.ac.id

Abstract

Banking companies may be faced with adjustment costs (cost of capital adjustment) to obtain optimal capital ratios. These costs arise when banks increase or obtain new external capital so that capital adjustments can lead to excess or shortage of capital which can have a negative impact and cause banks to be reluctant to react quickly when capital shocks occur. This research explores the most significant factors that influence bank capital policy choices in Indonesia. This study examines the financing choices of 8 banks for the 2013-2022 period using panel data regression analysis techniques with STATA.17. The results of the Random Effect Model Estimation research where bank companies in Indonesia have high leverage support the fact that the nature of bank business is different from non-banking companies. The significant negative relationship of the capital buffer is in line with the too big fail theory, pecking order theory and agency theory, as well as the Return On Equity and Capital Adequacy Ratio variables which have a significant positive relationship at an accuracy level of 85.01%, so in other words banking companies can use debt to finance the company on the basis of agency or managerial policies and strategies, thereby proposing pecking order theory with the assumption that there is information asymmetry and agency costs that are relevant both in the long term.

Keywords: Capital Buffer, Return on Equity, Capital Adequacy Ratio, Pecking Order Theory, Too Big Fall, Agency Theory.

INTRODUCTION

In corporate finance literature, the financing mix between long-term debt and equity is known as capital structure. The debate regarding the optimal capital structure for financial and non-financial companies is still inconclusive in the literature. Some empirical studies on capital structure do not include financial companies, especially banks: examples are Rinaldy et al (2023), Talreja et al (2023), and Amrulloh et al (2023). The bank exclusion is based on the argument that banks, as suppliers and demanders of capital, have different business traits, and these traits depend on different regulatory frameworks, such as capital adequacy ratios. In addition, as deposit recipients, banks are considered to have high *leverage compared to non-financial companies*. Therefore, the exclusion of the corporate financial sector (especially banks) from the analysis is based on the argument that their decisions are a by-product of some regulatory frameworks, especially those established by national central banks. Despite the differences in the nature of business and regulatory constraints, banks play an important role in a country's economic system. Despite the separation of financial and

How to cite: Muhammad Wahyudin, Marlina Widiyanti, Isni Andriana, Isnurhadi (2024) Capital Structure: Capital Buffer, Return on Equity, Capital Adequacy Ratio in Go-Public Banking in Indonesia, (5) 1. Doi: 10.46799/jss.v5i1.741

E-ISSN: 2721-5202

Published by: CV. Syntax Corporation Indonesia

non-financial sectors and differences in capital and liability classifications, Rusydiana et al (2019) argue that "the similarities between the capital structures of banks and non-financial companies may be greater than previously thought." They also conclude that differences in capital buffers and regulations may be of only secondary importance when analyzing bank capital structures. Based on these arguments, can we say that capital structure theories related to non-financial companies are relevant for banking companies. Therefore, this research explores the factors that influence the capital structure of commercial banks in Indonesia. Banking companies act as financial intermediaries that channel funds from households (in the form of savings) and distribute funds to the public or borrowers and investors. Every company will try to create stability for its company from bankruptcy by ensuring that it does not *buffer* the capital it has. Stellinga (2020) argue that in an efficient financial system, banks increase profitability while increasing the supply of funds from depositors to borrowers. This role becomes more significant in countries that have diversified and developing economies, such as banking companies in Indonesia.

In the theoretical literature, researchers have proposed several capital structure theories by considering various relevant costs and benefits of financing options. Each theory emphasizes relevant assumptions about the optimal debt and equity mix. In their seminal work, Modigliani and Miller, stated the "debt irrelevance proposition". However, later, they proposed a preference for debt over equity due to tax shelter benefits (Rustam (2019) , which was later supported by Jensen & Meckling (1976) using *agency theory assumptions* explains the agency relationship as a contract, where one or more *principals* . Myers (1984) and Myers and Majluf (1984) proposed *pecking order theory* assuming the existence of information asymmetry and relevant agency costs. Later, Jensen & Meckling (1976) proposed the *free cash row hypothesis* , followed by Baker and Wurgler, who proposed *the market timing theory* to create profits. Centered on different theoretical assumptions, researchers have put forward empirical evidence about various aspects of capital structure, such as the determinants of capital structure in developed countries. (Jensen, 1986) however, with research in contrast to the situation of non-financial companies, very few empirical studies have explored the factors that influence bank capital structure. Several studies, such as Prihadi (2019) researching bank capital management and regulation in developing countries with strict regulations making faster adjustments to their capital structure and in assessing the *Capital Adequacy Ratio (CAR)* which is an indicator of a bank's ability to cover or offset the decline in its assets as a result of losses. Bank losses caused by risky productive assets. The size *The Capital Adequacy Ratio* required by Bank Indonesia for banks operating in Indonesia is a minimum of 8%. The size of the *Capital Adequacy Ratio* owned by a bank will be influenced by the performance of other financial aspects, namely liquidity aspects, asset quality aspects, profitability and financing aspects. Banks, as providers of capital, play an important role in the economy, as shown by Liu (2018) "banks play an important role in allocating capital among all productive real sectors." This role becomes more important in developing countries and countries that are diversifying their economy, such as Indonesia, which has an economy that is sometimes unstable. This research explores the significant factors influencing the financing mix choices of commercial banks in Indonesia, a country where banks are the dominant source of financing while the securities market is still in its infancy. These findings help bank managers to create value for shareholders through an optimal financing mix, based on specific factors that influence the choice of capital structure. Furthermore, this research is the basis for new research that focuses on the role of banks under the government system's financial sector development program. The basis of this research discusses

capital buffers, Return on Equity and *capital adequacy ratios* in capital structures based on debt and equity. For 10 years. In this research there is a reference to previous research as support or support such as Achmady et al (2021), Saputri et al (2022), Ferdiansya & Isnuardi (2023), Kartika et al (2023), Gao & Tsusaka (2023) and Essel (2023) from the research discussed where the capital structure of applying debt over equity can have an influence on a company both in the short and long term.

LITERATURE REVIEW

Agency theory describes the relationship between the principal as owner and management as agents. Jensen & Meckling (1976) explain the agency relationship as a contract, where one or more principals order the agent to perform a service on behalf of the principal and give authority to the agent to make the best decisions for the principal. Agency problems can then arise because the principal's expectations of obtaining maximum returns on his investment are different from the manager's expectations. However, managers as agents do not always act in accordance with the principal's wishes, which is largely caused by moral hazard. According to Zogning (2022), agency theory highlights that if a company uses more debt compared to equity, the company can gain tax benefits because interest payments can be tax deductible. . Conversely, theory says that greater *leverage also involves greater costs*. Companies with greater leverage have greater bankruptcy costs. This theory holds that each company can only achieve an optimal capital structure and maximize its value by matching the cost of debt with its profits (Jensen & Meckling, 1976). In *agency theory*, there is an *agency cost* in a company where *agency costs* are costs incurred to control and supervise all manager activities so that managers or agents can carry out their obligations to improve the welfare of the company and its shareholders.. Capital structure can influence firm value through acting on management enthusiasm and provoking owners and debt providers to take on managers and tie up their abuses.

This research also supports the existence of *the pecking order theory* where Myers (1984) highlights that the pecking order hypothesis is clearly implied in Donaldson's (1961) research. Myers and Majluf (1984) introduced information asymmetry into the hypothesis, and agency costs associated with debt (bankruptcy costs) were first included by Jensen and Meckling (1976). Pecking order theory assumes that if information asymmetry is related primarily to firm value, rather than risk, then managers will prefer debt to equity financing if external capital is required (Leary & Roberts, 2010) . Jensen (1986) supports the use of debt to increase cash flows despite the possibility of financial distress under the *free cash flow hypothesis*. Instead, Giglio (2022) proposes that the optimal choice between debt and equity depends on the prevailing market situation; if investors are optimistic and show interest in the capital market, then the company will issue equity, and if not, it will choose debt. Pecking order theory shows that companies with positive earnings should use internal funds, because this will not send a negative signal to the market. If necessary, they can use debt, followed by equity as a last resort. Thus, this theory predicts a negative relationship between company profitability and *leverage*. Apart from that, the concept of *too big to fail* is defined as a term to describe a bank that is very important for a

country's economy, therefore the government will give people money to prevent it from failing (going bankrupt). Kane (2000) states that the behavior of large banks tends to have lower *capital buffers* than small banks due to the nature of being too big to fail (*Too Big to Fail*). In addition, large banks find it easy to obtain their funding from the capital markets, and have a comparative advantage in overcoming information problems related to monitoring which encourages them to achieve a balance between *cost of supervision* and *cost of equity* (Mishkin, 2007) .

Capital for banks has a very important role in supporting bank operational activities so that they can run smoothly (Dhaliwal et al., 2013) . To measure bank capital adequacy, it can be measured using the *Capital Adequacy ratio*. CEIC (2022) *Capital Adequacy Ratio* is defined as a ratio that measures bank capital to show the bank's ability to provide funds to cover the risk of losses caused by bank operational activities and bank business development funds. Capital is a very important aspect in banking, therefore Bank Indonesia has established provisions regarding aspects of bank capital. Capital Adequacy Ratio provisions according to Bank Indonesia Regulation Number 15/12/PBI/2013 concerning Minimum Capital Requirements for Commercial Banks with a minimum of 8% of Risk Weighted Assets. Nurhikmah & Farah (2020) *capital buffer* is the difference between the capital ratio owned by a bank and the minimum capital ratio required by policy makers. Apart from that, Kardiansyah (2017) defines *capital buffer* as "the difference between the capital ratio owned by a bank and the required minimum capital requirement which is used as a measure of the bank's capital strength in reducing risks that could threaten bank stability". Therefore, from these two definitions it can be concluded that capital buffer is buffer capital that comes from excess capital owned by the bank over the minimum capital requirements required by policy makers based on the risk profile faced by the bank. *The capital buffer* functions to absorb losses due to the emergence of unexpected systemic risks. Generally, this risk comes from a financial crisis or instability in a country's political conditions. With an adequate *capital buffer*, the bank's overall business operations are not easily disrupted and can continue to run in various economic conditions.

Return on Equity is a ratio used to measure the ability of bank management to earn profits using the core capital owned by the bank. The ROE ratio is widely observed by shareholders (both founding shareholders and new shareholders) as well as investors in the capital market who want to buy shares in the bank in question. In Bank Circular Letter No 6/23/DPNP Return on Equity is calculated by dividing profit after tax by average core capital. The minimum ratio ranges from 5%-12.5% (Pratiwi, Sandy Wine, Estiningtiastuti, 2016) . The measurement results can be used as a tool for evaluating management performance so far, whether they have worked effectively or not. Failure or success can be used as a reference for future profit planning, as well as the possibility of replacing new management, especially after experiencing failure. Capital structure is a mix of debt, preferred stock, and common stock. Apart from that, there are also bonds and other securities. Measuring capital structure can be done by calculating the company's leverage level, which describes how much of the company's assets

are funded with debt (Brigham & Houston, 2011) . Meanwhile, according to Felicya & Sutrisno (2020) capital structure is a balance between foreign capital or debt and own capital. Capital structure theory explains whether long-term spending policies can influence company value, the company's cost of capital, and the company's stock market price. If company spending policies can influence these three factors, what combination of long-term debt and own capital can maximize company value, or minimize the company's cost of capital, or maximizing the market price of the company's shares. The stock market price reflects the value of the company, so if the value of a company increases, the market price of that company's shares will also increase. From the definition of capital structure that has been explained, it can be concluded that capital structure is the comparison or balance between long-term debt and own capital.

RESEARCH METHOD

This study examines the financing choices of banks in Indonesia and explores the most significant factors of these banks' capital structure. A total of 8 banks are listed on the Indonesia Stock Exchange (BEI) stock market. This research uses data from these 8 banks, based on the availability of complete data for the 2013-2022 period. This sample roughly covers most of the banking sector. Variables This research adopts variable definitions from existing literature to obtain a meaningful comparison of the results of this research with previous studies. Like Nurhikmah & Farah (2020) , Kartika et al (2022) and Effendi (2022) , *leverage* is used as a dependent variable and proxy for bank capital structure. They suggest the use of book leverage because most regulations on banks are based on financial statements. The explanatory variables used in this research are *capital buffer*, *return on assets* and *capital adequacy ratio*.

To test data stationarity, a unit root panel with STATA V.17 was used. The sample data is panel data, namely data that covers banks from time to time. Therefore, the *Generalized Least Squares (GLS) panel data technique*, *Random Effect Model (REM)*, is used to estimate the relationship between book leverage as a proxy for capital structure and explanatory variables. *Generalized Least Squares (GLS)* is suitable for the simplest cases where there are no bank and time specific effects. Fixed effects estimation allows the intercept for each bank to be different but constrains the slope parameter to be constant for all banks and time periods.

Table 1. List of companies in the research sample

No	Issuer Code	Issuer Name
1	BBR	Bank Rakyat Indonesia, Tbk
2	BMRI	Bank Mandiri, Tbk
3	BBNI	Bank Negara Indonesia Tbk.
4	BBTN	Bank Tabungan Negara Tbk
5	BBCA	BBCA Bank Central Asia Tbk
6	BNGA	PT. Bank CIMB Niaga Tbk
7	MEGA	PT. Bank Mega Tbk
8	NISP	PT. Bank OCBC NISP Tbk

Source: Data processed by researchers from the Indonesian Stock Exchange (2023).

4. Empirical Results

To check whether the data series is stationary at a level, we use a summary unit root test as given by Levin et al. (2002). The results are presented in Table 1. The three

explanatory variables and one dependent variable are stationary at their level at the 1% significance level. These variables do not have unit roots. Thus, all dependent and independent variables are stationary. To be more in-depth regarding the panel data of 8 cross section banking companies and 10 year periods, the researcher carried out the Westerlund Cointegration test. Cointegration test to ensure there is no data integration and the data must be stationary in Table 2

Table 2. Unit Root Test Panel

<i>Variables</i>	<i>Method</i>	<i>Hypothesis</i>	<i>Probability on levels</i>
<i>Debt Equity Ratio</i>	<i>Levin-Lin-Chu</i>	Common unit roots	0.0000***
<i>Capital Buffers</i>	<i>Levin-Lin-Chu</i>	Common unit roots	0.0000***
<i>Return On Assets</i>	<i>Levin-Lin-Chu</i>	Common unit roots	0.0000***
<i>Capital Adequacy Ratio</i>	<i>Levin-Lin-Chu</i>	Common unit roots	0.0000***

Source: Appendix stata.18, secondary data processed (2023).

Note: 1***, 5**, 10* Determination of significance at error tolerance levels (alpha) of 1%, 5%, and 10% respectively

Table 3. Cointegration Test

<i>Westerland Cointegration</i>			
<i>Cross-sectional means removed</i>	<i>Statistics</i>	<i>p-value</i>	
Variance ratio	3.9980	0.0000	
<i>Pedroni Cointegration</i>			
<i>Modified Phillips-Perron t</i>	2.7631	0.0029	
<i>Phillips-Perron t</i>	-3.6797	0.0001	
<i>Augmented Dickey-Fuller t</i>	-3.4165	0.0003	

Source: Appendix stata.18, secondary data processed (2023).

With the Westerlund Cointegration Test for data from 8 banking companies and a 10 year period. With a p-value of $0.0000 < 0.05$, it explains that the null hypothesis is accepted and the alternative hypothesis is rejected. This shows that in the panel data there is no cointegration effect that will disrupt the coefficient estimator figures later. Thus, panel data is suitable for processing in this research so that the coefficient parameters reach BLUE. From the results of integration testing using the Pedroni test approach, it was found that the Modified Phillips-Perron (0.0029), *P hillips-Perron* (0.0001) and *Augmented Dickey-Fuller* (0.0003) models all showed a p-value < 0.05 so it can be interpreted as This research is cointegrative or there is a long-term relationship. In this research, descriptive analysis is used to obtain an overview of all research variables of the sample companies during the research period. Descriptive statistical results are presented in Table 3 below:

Table 4. Descriptive Statistics

<i>Variables</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Min</i>	<i>Max</i>
<i>DER</i>	80	6.483969	.2760003	6.070142	7.382658
<i>Buffers</i>	80	2.527546	.4139333	.8641704	3.70885
<i>ROA</i>	80	2.528952	.6171468	-.1301985	4.441595
<i>CAR</i>	80	3.033428	.2790517	1.72757	3.887871

Source: Appendix stata.18, secondary data processed (2023).

In the descriptive statistical analysis, it can be seen in Table 3, *Debt equity ratio (DER)* is an assessment of debt versus equity. This ratio is found by comparing all debt, including current debt, with all equity and is useful for knowing the amount of funds provided by the borrower and the company owner. Based on the table above, the DAR value of the sample company during the 10 year observation period has the highest value of 7.3%, the maximum Buffer value is 3.7% while for ROE it is 4.4% and CAR is 3.8%. The descriptive statistics table also shows the size of the standard deviation, where all variables have different values, and this can also be interpreted as the difference in mean values, where the standard deviation value has a smaller value than the mean value, meaning that it shows the distribution of the data variables is small or There is no significant gap between the lowest and highest Buffer, ROE and CAR variable ratios.

Table 5. Model Selection Results

<i>Variables</i>	<i>Common Effects</i>	<i>Fixed Effects</i>	<i>Random Effects</i>
<i>DER (c)</i>	-1.9267241 [0.001]***	-1.1136148 [0.000]***	4.954348 [0.000]***
<i>Buffers</i>	.02329369 [0.604] 2.4220685 [0.003]**	.07470689 [0.000]** 1.380874 [0.005]**	-1.113615 [0.000]** .0747069 [0.004]***
<i>CAR</i>	3.9477734 [0.001]***	4.9209696 [0.002]***	1.380874 [0.001]***
n	80	80	80
r2	.28865716	.40302578	.249110
r2_a	.26057784	.31650777	.402711
F	10.280061	15.527627	-
Chi2	-	-	47.384637

Legend: * p<0.05; **p<0.01; ***p<0.001

Source: Appendix stata.18, secondary data processed (2023).

Regression results to explore the effect of explanatory variables on *leverage* on the debt and capital ratio, this study uses pooled OLS, fixed effect and *random effect regression*. Table 4 presents the results of these three estimates. The relationship of all explanatory variables with the dependent variable shows consistency in the three regression models. Based on the results of the Hausman (1978) test (Chi square: 3.33, p-value: 0.3435) and the *Breusch and Pagan Lagrangian multiplier* test (chibar; 180.95, p-value: 0.000) the *random-effects* estimate was found to be suitable for discussion. The results show that *the buffer* has a significant and positive relationship with *the debt equity ratio* in the panel data regression estimation. Apart from that, *return on assets* and *capital adequacy ratio* have a positive and significant relationship with *the debt equity ratio*.

RESULTS AND DISCUSSION

The choice of the best model was *the Random Effect Model*, where the *Buffer variable* has a probability of $0.000 < 0.005$ with a coefficient of -1.113, which means that Buffer has a negative significant influence on the Debt Equity Ratio, but the minimum regulated company performance has a limit of not exceeding 8%. This means that capital is able to minimize and help the company's financing of debt. This can be seen in the negative coefficient. The results of this hypothesis accept H1 and reject H0. According to the Sangadah (2022) *The debt to equity ratio* can describe the sources of funds used by the company and the risks faced by the company. The greater *the debt to equity ratio* means the greater the company's assets or funding that comes from debt,

so that the role of capital will act to overcome this problem, therefore *the buffer* is negative. Dana (2018) explains that bank capital is the difference between the value of its assets and the value of its debt obligations (including deposits). In other words, it is the part of the bank's assets that belongs to its shareholders. Bank creditors and depositors are better protected from bank pressure when the ratio of capital to total assets is high, this falls into agency and *trade-off theory* (Reznakova et al., 2018). There are several reasons for this. First, because shareholders are the most junior stakeholders in a bank, capital functions as a buffer that can absorb possible bank losses. Second, because shareholders indirectly control bank behavior, banks will be more careful in investing when they have more shares at stake. Braslins & Arefjevs (2015) Banks tend to maintain *buffers* above minimum capital requirements and utilize these buffers during periods of stress. In the tier 1 *capital buffer theory*, it is explained that bank supervisors in each country have the right to assess the adequacy of instruments added to Tier 1 bank capital to increase the total loss absorption capacity—such as subordinated debt and convertible debt. If they consider that these additional instruments cannot provide strong loss absorption in times of crisis, they may have to emphasize higher levels of bank capital (Ayuso et al., 2004).

In this analysis it is also found that *Return On Assets* has a probability value of $0.004 < 0.05$ with a coefficient of 0.07, which indicates that *ROE* has a significant positive influence on *DER and net profit on capital owned, able to increase the incidence of the DER* ratio in financing banking companies, especially in health. bank. The results of this hypothesis accept H_{a2} and reject H_{02} . According to Ismi et al (2021), the level of company health to achieve success in the company's financial performance can be seen through measuring the company's ROE. ROE is of course not only an indicator for company owners to evaluate the extent to which existing management has worked in optimizing its functions and duties in improving company performance and also the welfare of company owners, but is also able to be a source of information for investors who will invest their capital in the company. So it can be said that the higher the ROE, the more investors will be interested in investing, and vice versa. This is in accordance with the *Trade-Off theory* where if the company experiences an increase in DER, it will result in an increase in ROE and vice versa. Satria & Sundari (2021) explain that the relationship between *ROE* and *DER* is significantly positive so it can also be interpreted. This is because in 2018-2022 *the debt to equity ratio* experienced a decrease and increase and the same also applies to *the return on equity ratio*, thus stating that there is a decrease in *the debt to equity ratio* causes *return on equity* to increase." "Conversely, if *the debt to equity ratio* increases, *the return on equity* will decrease.

The third hypothesis is accepting hypothesis H_{a3} and rejecting H_{03} , this means that *Capital Adequacy* has a significant influence in a positive direction, this can be seen from the probability value of $0.001 < 0.05$ with a coefficient of 1.3880 and from these results it is indicated that *capital adequacy* can increase and increase *the debt equity ratio*. *Capital Adequacy Ratio* is a ratio used to measure a bank's capital adequacy capability. Priharto et al (2018), *Capital Adequacy Ratio (CAR)* is a ratio that shows the ability of bank capital to bear the risk of possible financing failures. A high *Capital Adequacy Ratio* indicates that the bank has sufficient and healthy funds and vice versa. *Capital Adequacy Ratio* is low, the risk of bank financing failure will be higher. Theory that links capital adequacy ratio with capital structure Herizona & Yuliana (2020) Packing order theory explains that companies that have a high level of profit actually have a smaller level of debt. This small debt level is not because the company has a small target debt level, but because the company does not need external funds. The high level of profit makes their internal funds sufficient to meet investment needs and in *Agency*

Theory, according to this approach, the capital structure is structured to reduce conflicts between various interest groups. The conflict between shareholders and managers is the concept of *free-cash flow*. There is a tendency for managers to want to retain resources so that they have control over these resources. Debt can be considered as a way to reduce *cash flow conflicts* Jensen & Meckling (1976) . If the company uses debt, managers will be forced to remove cash from the company to pay interest.

From a theoretical point of view, *the capital buffer* is negative (significant) where funding in companies must have capital financial criteria not to be <8%, which means the bank will always maintain the stability of its performance, therefore this capital buffer can provide support for financing companies with debt. Obtained from loans from stakeholders or credit stakeholders, here we emphasize that trade-off theory and agency theory explain the role of financing or investment financing. If the company is pressed, it can use debt for capital with the consideration of the supervisor or managerial party who acts as an agency by monitoring the capital buffer value which is higher. From 8%. In the tier 1 capital buffer theory, it is explained that bank supervisors in each country have the right to assess the adequacy of instruments added to Tier 1 bank capital to increase the total loss absorption capacity. Such as subordinated debt and convertible debt.

Retrun Equity Ratio which is positive which can be interpreted as the ratio of debt to capital can provide additional company financing, where of these 8 banks have high Retrun Equity Ratio values so that many stakeholders, investors and others have the confidence to invest their wealth in the company, so that this is related to the trade-off theory, where if the company experiences an increase in DER, it will result in an increase in ROE and vice versa and the Retrun Equity Ratio is of course not only an indicator for company owners to evaluate the extent to which existing management has worked in optimizing functions and tasks in improving performance.

The opportunity for the Debt Equity Ratio to increase in value is by financing companies with debt rather than bank capital provided that the company is far from being affected by a risk, because the capital adequacy ratio provides monitoring of this problem, from this it can be seen that 8 banking companies have very good capital adequacy ratios. Where the positive value here shows that 8 companies can use debt financing for the capital they have. The packing order theory explains that companies that have a high level of profit actually have a lower level of debt. This small debt level is not because the company has a small target debt level, but because the company does not need external funds. The high level of profit makes their internal funds sufficient to meet investment needs and in Agency Theory, according to this approach, the capital structure is structured to reduce conflicts between various interest groups. The conflict between shareholders and managers is the concept of free-cash flow. There is a tendency for managers to want to retain resources so that they have control over these resources. Debt can be considered as a way to reduce cash flow conflicts.

CONCLUSION

In the estimation results, it is known that all variables in this study are stationary (*unit root test*), this is also confirmed that each variable has a convergence or gap for each company of 28.13% in forming the capital structure each year. Apart from that, this research uses the *Modified Phillips-Perron*, *Phillips-Perron* and *Augmented Dickey-Fuller cointegration tests* with a value of $0.000 < 0.05$, there is a long-term relationship in influencing the capital structure of banking companies. This research is also identified as free from classical assumption testing. The best model chosen was *Random Effect Model*, where the *Buffer variable* has a probability of $0.000 < 0.005$ with a coefficient of

-1.113, which means that *Buffer* has a negative significant effect on *the Debt Equity Ratio*. *Return on Equity* which has a probability value of $0.004 < 0.05$ with a coefficient of 0.07, meaning that *ROE* is able to have a significant influence in a positive direction, where if *ROE* increases, *DER* will also increase. *Capital Adequacy Ratio* with a probability value of $0.001 < 0.05$ with a coefficient of 1.380, so it can be interpreted that *CAR* can influence *DER* significantly and if *CAR* increases it can also provide an increase in *DER*.

From the research estimation results, a suggestion was obtained which is expected for further research to use banking company objects from Book I, II III and IV categories and use more variables that can influence *leverage* from the debt and *equity ratio*. Apart from that, policy holders should continue to monitor and evaluate the amount of capital that banking companies must have and always pay attention to and maintain bank stability because it is hoped that they will be able to expand the factors that determine the extent of banking company performance. Apart from that, the assessment that has been carried out can be interpreted that the bank's performance must be maintained by maximizing stability. With this action it will provide benefits to the company in terms of trust of *stockholders* or the public in investing their wealth and shares. Apart from that, many investors have confidence in the company. . So, with this action, the company's capital structure will improve and provide stable company performance.

BIBLIOGRAPHY

- Achmady, M., Andriana, I., & Thamrin, KMH (2021). The Analysis of Liquidity and Its Effect on Profitability, Sales and Working Capital Policy in Manufacturing Companies Listed on Indonesia Stock Exchange. *Sriwijaya Journal of Management and Business* , 18 (4), 243–254. <https://doi.org/10.29259/jmbs.v18i4.12201>
- Amrulloh, R., Kadir, A., Jayen, F., Melania, & Wahyu. (2023). The Effect of Capital Structure and Profitability of Stock Prices in a Registered Food and Beverage Company on the Indonesian Stock Exchange. *International Journal of Economics, Business and Management Research* , 07 (01), 79–95. <https://doi.org/10.51505/ijebmr.2023.7108>
- Ayuso, J., Perez, D., & Saurina, J. (2004). Are Capital Buffers Pro-cyclical? Evidence From Spanish Panel Data. *Journal of Financial Intermediation* , 13 , 249–264. [https://doi.org/10.1016/S1042-9573\(03\)00044-5](https://doi.org/10.1016/S1042-9573(03)00044-5)
- Braslins, G., & Arefjevs, I. (2015). Basel III: Countercyclical Capital Buffer Proposal-the Case of the Baltics. *Procedia - Social and Behavioral Sciences* , 110 , 986–996.
- Brigham, E.F., & Houston, J.F. (2011). *Basics of Financial Management* (Translation). Salemba Four.
- CEIC. (2022). *Indonesia Capital Adequacy Ratio* . Indonesian Financial Services Authority. <https://www.ceicdata.com/id/indicator/indonesia/capital-adequacy-ratio>
- Dana, B.S. (2018). Evaluation Of Macroprudential Policy On Credit Growth In Indonesia: Credit Registry Data Approach. *Ethiconomy* , 17 (2), 199–212. <https://doi.org/10.15408/etk.v17i2.7324>
- Dhaliwal, DS, Lamoreaux, PT, Lennox, CS, & ... (2013). Management influence on auditor selection and subsequent impairments of auditor independence

- during the post-SOX period. *Available at SSRN ...*
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2018702
Cited By (since 2013): 135
- Effendi, TU (2022). Analysis of the influence of internal bank factors on the capital buffer on banking industry in Indonesia. *Indonesian Journal of Business Management*, 2 (2), 231–242.
- Essel, R.E. (2023). The Effect of Capital Structure on Corporate Performance: Panel Empirical Evidence of an Emerging Capital Market. *Journal of African Business*, 2 (2), 1–40. <https://doi.org/10.1080/15228916.2023.2170856>
- Felicya, C., & Sutrisno, P. (2020). The influence of company characteristics, ownership structure and audit quality on earnings management. *Journal of Business and Accounting*.
<http://jurnaltsm.id/index.php/JBA/article/view/678>
Cited By (since 2020): 34
- Ferdiansya, MS, & Isnuardi. (2023). Factors that Influence the Capital Structure of Mining Companies Listed on the Indonesian Stock Exchange. *Jurakunman (Journal of Accounting and Management)*, 2 (2), 1–16.
- Gao, C., & Tsusaka, T. W. (2023). Economic Uncertainty and Firms' Capital Structure: Evidence from China. *Risks*, 11 (4), 1–23.
<https://doi.org/10.3390/risks11040066>
- Giglio, F. (2022). The Capital Structure through the Modigliani and Miller Model. *International Business Research*, 15.
<https://doi.org/10.5539/ibr.v15n11p11>
- Herizona, BS, & Yuliana, I. (2020). Leverage Ratio Analysis of Corporate Social Responsibility (Csr) Disclosure and Gender Diversity as a Moderating Variable. *Journal of Benefita*, 5 (3), 341.
<https://doi.org/10.22216/jbe.v5i3.4761>
- Ismi, N., Cipta, W., & Yulianthini, NN (2021). Analysis of the Effect of Debt to Equity Ratio and Firm Size on Return on Equity at CV. Dwikora Usaha Mandiri. *Indonesian Management Journal*, 4 (1), 10–17.
- Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76 (2), 323–329.
<http://www.jstor.org/stable/1818789>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3 (4), 305–360. [https://doi.org/https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/https://doi.org/10.1016/0304-405X(76)90026-X)
- Kane, E. (2000). Incentives for banking megamergers: what motives might regulations infer from event-study evidence? In *Proceedings*.
- Kardiansyah, MF (2017). *Countercyclical capital buffer analysis of Indonesian banking credit growth in 2007-2016 thesis*.
- Kartika, A., Indriyaningrum, K., Nurhayati, I., & Sudiyatno, B. (2022). Determinants of Capital Buffer: Study on Conventional Commercial Banks in Indonesia. *European Journal of Business and Management Research*, 7 (2), 289–294. <https://doi.org/10.24018/ejbmr.2022.7.2.1379>
- Kartika, A., Irsad, M., Setiawan, M., & Sudiyatno, B. (2023). The relationship

- between capital structure, firm performance and a firm's market competitiveness: Evidence from Indonesia. *Investment Management and Financial Innovations* , 20 (1), 88–98.
[https://doi.org/10.21511/imfi.20\(1\).2023.09](https://doi.org/10.21511/imfi.20(1).2023.09)
- Leary, M. T., & Roberts, M. (2010). The pecking order, debt capacity, and information asymmetry. *Journal of Financial Economics* , 95 (3), 332–355.
<https://econpapers.repec.org/RePEc:eee:jfinec:v:95:y:2010:i:3:p:332-355>
- Liu, J. (2018). Bank's Regulatory Capital Buffer and Counter-cyclical Behavior - Empirical Analysis Based on China's 18 Commercial Banks. *International Journal of Management Science and Business Administration* , 2 (4), 7–16.
- Mishkin, F.S. (2007). *The Economics of Money, Banking, and Financial Markets* . Pearson/Addison Wesley.
<https://books.google.co.id/books?id=2NYrVhR4MqoC>
- Nurhikmah, F., & Farah, WP (2020). Determinants of Banking Capital Buffer in Indonesia. *Journal of Indonesian Applied Economics* , 8 (1), 13–23.
- Pratiwi, Sandy Wine, Estiningtiastuti, PT (2016). Analysis of Liquidity Risk in Islamic Banking in Indonesia. *Ekonomik* , 2012 , p.7-8.
- Prihadi, T. (2019). *Financial Report Analysis Concepts and Applications* . PT. Gramedia Pustaka Utama.
- Priharta, A., Rahayu, DP, & ... (2018). The Influence of CGPI, Audit Quality, Company Size and Leverage on Profit Management. *JABE (Journal of ...* .
<https://journal.lppmunindra.ac.id/index.php/JABE/article/view/2674>
 Cited By (since 2018): 27
- Reznakova, M., Svoboda, P., & Polednáková, A. (2018). Determinants of capital structure: Empirical evidence from Slovakia. *Ekonomicky Casopis* , 58 (3), 237–250. <https://doi.org/10.5539/jms.v8n1p31>
- Rinaldy, S., Kalangi, L., Yoke, M., & Kalalo, B. (2023). *The Effect of Capital Structure, Working Capital Turnover and Firm Size on Firm Value in Property and Real Estate Sector Companies Listed on Indonesia Stock Exchange* . 2 (2), 477–490.
- Rustam, M. (2019). The Influence of Capital Structure on Return on Equity (ROE) at PT. Summarecon Agung, Tbk. *Movere Journal* , 1 (2), 175–188.
<https://doi.org/10.53654/mv.v1i2.58>
- Rusydiana, AS, Rani, LN, & Hasib, FF (2019). Which are the Most Important Indicators of Financial System Stability?: A Macroprudential Perspective. *Journal of Development Economics* , 27 (1), 25–42.
<https://doi.org/10.14203/jep.27.1.2019.25-42>
- Sangadah, D. (2022). Fundamental Factors and Capital Behavior of Banking in Indonesia. *Jagaditha Journal of Economics and Business* , 9 (2), 154–164.
- Saputri, V., Andriana, I., & Muthia, F. (2022). Factors that influence the capital structure of mining companies listed on the Indonesian Stock Exchange for the 2013-2017 period. *Journal of Economic Review – Scientific Journal of Economics and Business* , 3 (2), 185–200.
<https://doi.org/10.46367/jas.v3i2.183>
- Satria, MR, & Sundari, R. (2021). The effect of debt to equity ratio (der) on return on equity (roe) in banking sectors listed on BEI (2016-2019 period) The

effect of debt to equity ratio (der) on return on equity (roe) in banking sectors listed on the idx (period. *KINERJA - Journal of Economics and Management - Journal of Economics and Business Mulawarman (JEBM)* , 18 (1), 148–154.

Stellinga, B. (2020). The open-endedness of macroprudential policy. Endogenous risks as an obstacle to countercyclical financial regulation. *Business and Politics* , 2 (4), 224–251. <https://doi.org/10.1017/bap.2019.14>
Cited By (since 2020): 14

Talreja, K., Memon, M.F., Jatoi, A., & Bhutto, S.A. (2023). Multicultural Education The Effects of Capital Structure (CS) and Growth of Firm (GOF) on Firm's value (FV): A Mediation Analysis. *Multicultural Education* , 9 (1), 35–41. <https://doi.org/10.5281/zenodo.7521558>

Copyright holder:

Muhammad Wahyudin, Marlina Widiyanti, Isni Andriana, Isnurhadi (2024)

First publication right:

Journal of Social Science

This article is licensed under:

