



## Jurnal Nominal Barometer Riset Akuntansi dan Manajemen

URL: <https://journal.uny.ac.id/index.php/nominal>



# Factors Affecting the Stability of Financial Banking System in Indonesia

Shafitranata <sup>a,1\*</sup>, Arseta Yudha Lesmana <sup>a,2</sup>, Afriani Nuraini <sup>a,3</sup>

<sup>a</sup> Sekolah Tinggi Ilmu Ekonomi Al-Madani Lampung, Indonesia

<sup>1</sup> shafitranata@almadani.ac.id\*; <sup>2</sup> arseta.yudha@almadani.ac.id; <sup>3</sup> afriani.nraa02@gmail.com

\* corresponding author

## ARTICLE INFO

### Article history

Received : 15 January 2025

Revised : 20 June 2025

Accepted : 19 August 2025

### Keywords

Financial Stability System  
Pressure  
Intermediation  
Efficiency  
Banking

### Kata Kunci

Stabilitas Sistem Keuangan  
Tekanan  
Intermediasi  
Efisiensi  
Perbankan

## ABSTRACT

The objective of this research to identify various factors that encourage the stability of Indonesia's banking and financial system from 2018 to 2023. The present research makes use of secondary data from 66 banks' audited financial statements that were chosen using the purposive sampling technique. The Random Effect Model method, which was chosen based on the findings of the Chow Test, Hausman Test, and Lagrange Multiplier Test, is used in this study to apply panel data regression. According to the analysis, NIM significantly reduces the stability of the financial system, but CAR and LDR significantly increase it. Furthermore, the stability of the financial system was not significantly impacted by NPL, ROA, DPK, or BOPO. These findings confirm the importance of effective capital management and liquidity optimization in maintaining banking stability. The decline in NIM indicates the need to improve efficiency in managing productive assets.

## ABSTRAK

Tujuan dari penelitian ini adalah untuk mengidentifikasi berbagai faktor yang mendorong stabilitas perbankan dan sistem keuangan Indonesia dari tahun 2018 hingga 2023. Penelitian ini menggunakan data sekunder dari laporan keuangan 66 bank yang telah diaudit yang dipilih dengan menggunakan teknik *purposive sampling*. Metode *Random Effect Model*, yang dipilih berdasarkan hasil dari Uji Chow, Uji Hausman, dan Uji Lagrange Multiplier, digunakan dalam penelitian ini untuk mengaplikasikan regresi data panel. Berdasarkan hasil analisis, NIM secara signifikan menurunkan stabilitas sistem keuangan, namun CAR dan LDR secara signifikan meningkatkan stabilitas sistem keuangan. Lebih lanjut, stabilitas sistem keuangan tidak dipengaruhi secara signifikan oleh NPL, ROA, DPK, atau BOPO. Temuan ini menegaskan pentingnya efektivitas pengelolaan modal dan optimalisasi likuiditas dalam menjaga stabilitas perbankan. Penurunan NIM menunjukkan perlunya peningkatan efisiensi dalam pengelolaan aset produktif.

This is an open-access article under the [CC-BY-SA](#) license.



## 1. Introduction

The IMF presented a new outlook on global banking, highlighting the risks of higher and longer interest rates. The first indication is that rising interest rates have revealed the vulnerability of a number of banks, which is further exacerbated by tight and prolonged monetary policy (Setiawati, 2023). While maintaining high interest rates has been a strategy to control inflation in many countries, it has slowed economic growth. The possibility of high benchmark interest rates, geopolitical tensions, rising oil costs, cost-of-living difficulties, and divergent global economic growth directions are just a few of the hazards that the global banking industry is expected to encounter in 2024 (Pramana, 2024).

OJK assesses that banks in Indonesia are quite resilient and absorb risks amid the dynamics of the global environment, but banks in Indonesia need to conduct scenarios and test the resilience of banking pressure, intermediation, and efficiency to face potential vulnerabilities globally. Banking conditions in Indonesia are detected to be affected by global financial conditions, the financial services authority revealed that in 2024 there will be 3-4 banks that have the potential to merge as an effort to increase assets and compete in business activities (Otoritas Jasa Keuangan, 2024). Conventional banks are also affected by global financial dynamics that still refer to global interest rates, so they need to improve the business cycle through pressure, intermediation, and efficiency.

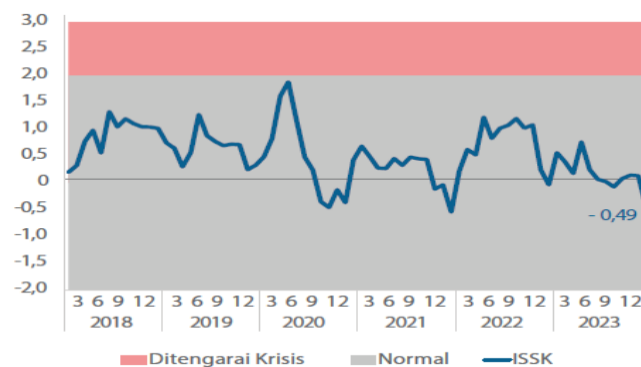
Several studies Hidayat et al., (2021), Al-Zoubi et al., (2018), Putra et al., (2021), determined that a company's capacity to optimize its operations, efficiency, and stability may be impacted by global policies. This phenomenon is reflected in the increase in loan losses caused by the current business orientation that faces higher borrowing costs, especially those associated with job or income loss. Nonetheless, the global banking system in general appears to be quite resilient. The 30 financial organizations with low capital levels only made up around 3% of the total assets of global banks, according to the results of an IMF stress test on 900 lending institutions across 29 nations (Kiryanto & Nisaputra, 2023). If severe stagflation occurs, this will affect the weaker bank groups due to rising benchmark interest rates, increasing loan defaults, and falling security prices. Indonesian banks use five risk indicators to assess their soundness: market value, liquidity, profitability, asset quality, and capital sufficiency (Ghroubi, 2023).

The quality of bank loans in Indonesia remains well maintained, reflected in the net NPL of 0.77% and gross NPL of 2.43%. Encouraged by stable national economic growth of around 5% per year, the value of loans affected by COVID-19 and restructured continued to decline consistently, by Rp9.17 trillion, to Rp316.98 trillion. This decrease in the value of restructured loans has had a positive impact on the decline in the loan at risk (LAR) ratio, which has now reached 12.07% (Otoritas Jasa Keuangan, 2024). Despite its good maintenance, it is important to be mindful of the risk of inflation and benchmark interest, as these factors would affect creditors' capacity to repay loans with less credit restructuring.

Bank Indonesia stated that financial system stability is maintained in line with the decline in credit risk and the strength of bank capital. With a value of about -0.49 in December 2023, the Financial System Stability Index (FSIS) reflects this and remains in the normal range for the entirety of 2023. This stable ISSK is supported by solid capitalization, ample liquidity, and declining credit risk. In December 2023, the capital adequacy ratio of the bank was 27.66%. In the meantime, the ratio of non-performing loans was kept at 0.71% (net) and 2.19% (gross). Despite the decline, Bank Indonesia must continue to be committed to strengthening coordination and synergy, as well as increasing vigilance against the potential risks of economic slowdown and global uncertainty that continue in 2024 (Bank Indonesia, 2024).

The problem-solving approach is reviewed from the theoretical basis put forward in the theory of corporate development strategies through the development of business orientation in managing income and credit. According to (Almanaseer, 2014), bank profitability will not be impacted by effective liquidity management. Banking decisions in dealing with crisis conditions also have a persistent impact on the financing or credit decision cycle (Al-Zoubi et al., 2018). Banking operating

income through fee-based income is a significant corporate value variable as a medium for product development and is expected to increase banking operations (Nosheen & Rashid, 2019).



**Figure 1.** Financial System Stability Index 2018-2023

Efficiency aspects are indicators that affect banking profitability, banks are considered too excessive related to overhead costs including labor costs, electricity, maintenance, insurance costs, and erode the banking income ratio. Islamic banks have excellent economies of scale, yet their decomposition of pure technical efficiency scores is much larger than that of regular banks, according to research (Parsa, 2022). According to (Hidayat et al., 2021), Islamic and conventional banks are equally efficient; nevertheless, the negative consequences of credit or financing risk have an impact on the decline of efficiency.

Asset quality instruments are significant indicators in measuring the development cycle of banking performance in Indonesia. Banks in Indonesia avoid the risk of withdrawal and investment downturns tend to be more cautious (Nosheen & Rashid, 2019). It is conducted to anticipate the risk of default and can be minimized. Banking stability is a measure in anticipating economic dynamics, some banks are still constrained by capital so that they cannot maximize company assets to achieve profits (Ashraf et al., 2016). Maximizing banking stability is a strategic step in dealing with all conditions and increasing the company's business cycle.

While previous research Al-Sharkas & Al-Sharkas, (2022) Sang, (2021) has explored capital adequacy and profitability separately, there remains a lack of studies that assess how pressure factors (NPL, CAR), intermediation indicators (LDR, DPK), and efficiency measures (NIM, BOPO) interact to influence overall stability. This research addresses that gap by analyzing their interrelationships, providing a more comprehensive perspective on the resilience of Indonesia's banking sector. This research provides a contribution to the financial stability of firms in predicting factors that are predicted to interfere with the financial condition of firms, and confirms the importance of effective capital management and liquidity optimisation in maintaining banking stability.

## 2. Literature Review

### 2.1. Stability of the Financial System

The stability of the financial system functions as a fundamental economic mechanism that ensures the efficient operation of pricing, fund allocation, and risk management pillars essential for supporting sustainable economic growth. (Ashraf et al., 2016) conceptualize financial system stability (SSK) as an encompassing framework that integrates infrastructure, institutional frameworks, and market dynamics. Their view highlights that a stable financial system is indispensable not only for mobilizing financial resources and fostering wealth creation but also for facilitating equitable risk distribution and sustainable development. Compared to narrower interpretations of financial stability focused solely on banking health, provide a broader systemic

perspective. SSK also underscores the critical role of a well-functioning payment system, which must be resilient enough to detect and mitigate potential economic disturbances before they escalate into full-blown crises. This anticipatory function-enabled through self-correction mechanisms and market discipline marks a significant evolution from reactive to proactive financial governance.

In contrast, [Dewi, \(2017\)](#) narrows the focus by introducing the financial institution stability index, a tool specifically employed by Bank Indonesia to evaluate the soundness of individual financial institutions, particularly banks. Unlike [\(Ashraf et al., 2016\)](#) systemic approach, [\(Dewi, 2017\)](#) framework emphasizes micro-level diagnostics, centering on institutional stress, intermediation performance, and operational efficiency. These factors are evaluated using key banking indicators, positioning the bank balance sheet as a predictive instrument for systemic vulnerabilities an insight echoed by [\(Anisa et al., 2023\)](#) and [\(Ananda et al., 2024\)](#). The use of bank ratios and the financial market stability index further deepens the analysis of macro-level stability, complementing the micro-level view.

Therefore, while [Ashraf et al., \(2016\)](#) view financial system stability through a holistic, macro-systemic lens, [\(Dewi, 2017\)](#) and subsequent studies provide a granular, institution specific perspective. Both frameworks are complementary: the former establishes the theoretical and functional importance of system wide stability, while the latter offers practical measurement tools that enable regulatory bodies such as Bank Indonesia to monitor and manage risks. This dual approach combining structural and institutional analysis reflects an increasingly integrated understanding of financial stability as both a macroprudential and microprudential concern. A decline in the financial institution stability index, as outlined by [\(Bank Indonesia, 2024\)](#), signals emerging vulnerabilities, affirming the need for continuous and adaptive monitoring to uphold national financial resilience.

## 2.2. Pressure

Banking pressures are influenced by factors such as NPL, CAR, ROA, and liquid assets. Liquid assets include cash, bank current accounts at Bank Indonesia (BI), Government Securities (SBI), placements at other BI, and Government Securities (SUN) such as HTM SUN, Trading SUN, and AFS SUN. The advantage of this stress factor is the ability to adjust the weight according to the existing conditions. The adjustment of the weight in ITP is based on the CAR condition in the banking industry, where the lower the industry CAR, the greater the weight of the indicator [\(Mahmudah et al., 2022\)](#).

The pressures on the banking sector were caused by the decline in banking liquidity performance due to slowing growth in Third Party Funds (DPK) amid increasing credit growth. This liquidity performance is influenced by the utilization of banking assets to generate overall profits. Research [\(Wati et al., 2019\)](#) states that although stress factors in banking affect financial system stability, the effect is not significant in Indonesia. [\(Fatoni & Sidiq, 2019\)](#) also stated that the stability of Indonesia's financial system is influenced by internal and external events that occur in conventional and Islamic banks. In general, the greatest pressure on the financial system during 2018-2023 was mostly triggered by the turmoil of the external environment, which was reflected in the increasingly volatile global financial markets. In fact, global stock markets often experience significant corrections due to increased uncertainty and the impact of the pandemic and global economic recession issues.

The Capital Adequacy Ratio (CAR), Return on Assets (ROA), and Non-Performing Loan (NPL) all show that NPL has a detrimental effect on ROA. Increased non-performing loans (NPLs) are frequently a sign of increased credit risk, which impacts overall financial performance and reduces bank earnings. On the other hand, CAR has a favorable impact on ROA [\(Rosadi & Ramadhan, 2024\)](#). This suggests that banks with greater capital have a tendency to be more trusted by their clients and are better able to control risk, which raises their profitability. The relationship between the three factors may also change according on the situation and current market conditions, even if CAR and NPL both have a big impact on ROA [\(Kenzen & Afandy, 2023\)](#).

- H<sub>1</sub>: The stability of the banking financial system is positively and significantly impacted by nonperforming loans.
- H<sub>2</sub>: The stability of the banking financial system is positively and significantly impacted by the capital adequacy ratio.

H<sub>3</sub>: The stability of the banking financial system is positively and significantly impacted by return on assets.

### 2.3. Intermediation

A banking intermediation index consists of two aspects, namely idiosyncratic aspects related to the behavior of individual banks in intermediation, both in channeling funds and raising funds as part of banking business activities. Horizontal aspects describe overall banking intermediation related to the national economy (Nur Maghfiroh & Salukh, 2022). The difference between lending and deposit rates is a measure of idiosyncratic features; the larger the difference, the less interested banks are in directing money. The second indicator in the idiosyncratic aspect is GWM-LDR, which is calculated based on the difference between banks' LDR and the GWM-LDR disincentive limit.

According to research Suhendra & Ronaldo, (2017), the intermediation factor has a major influence on economic growth. Bank Indonesia plays an important role in maintaining monetary and macroeconomic stability, namely by maintaining exchange rate stability, low interest rates, and inflation values to be lower than targeted, so that the business climate continues to run well. (Febriyanti et al., 2020) revealed that banking intermediation factors must be considered in supporting credit growth, if not supported by appropriate policies it can negatively affect financial stability.

H<sub>4</sub>: The stability of the banking financial system is positively and significantly impacted by third-party money.

H<sub>5</sub>: The stability of the banking financial system is positively and significantly impacted by the loan to deposit ratio.

### 2.4. Efficiency

Parameter for measuring banking performance is the efficiency factor. Efficiency measurement in banking is a method in the policy-making process related to optimizing bank performance. Scale, coverage, technical, and allocation efficiency are the four categories into which banking efficiency can be separated, according to (Muhri et al., 2022). When a bank can function at scale while maintaining consistent returns, it is said to be scale efficient. Coverage efficiency is achieved when banks can operate by diversifying allocations. Allocation efficiency is achieved when the bank is able to determine the output that generates maximum profit. In contrast, technical efficiency describes how inputs and outputs relate to one another during a production process. If a specific combination of inputs can yield the highest possible output, the production process is considered efficient (Shafitranata et al., 2020).

Indicator selection is more focused on the efficiency aspect of banking. In general, efficiency indicators are divided into two, namely net interest margin (NIM) and BOPO. Efficiency acts as a method to seek profit by balancing income and costs incurred in order to achieve maximum profit with minimal expenditure. (Nur Maghfiroh & Salukh, 2022) indicated that a rise in banking efficiency will have a favorable impact on the stability of financial institutions, and inversely.

H<sub>6</sub>: The stability of the banking financial system is positively and significantly impacted by net interest margin.

H<sub>7</sub>: BOPO significantly and favorably affects the banking financial system's stability.

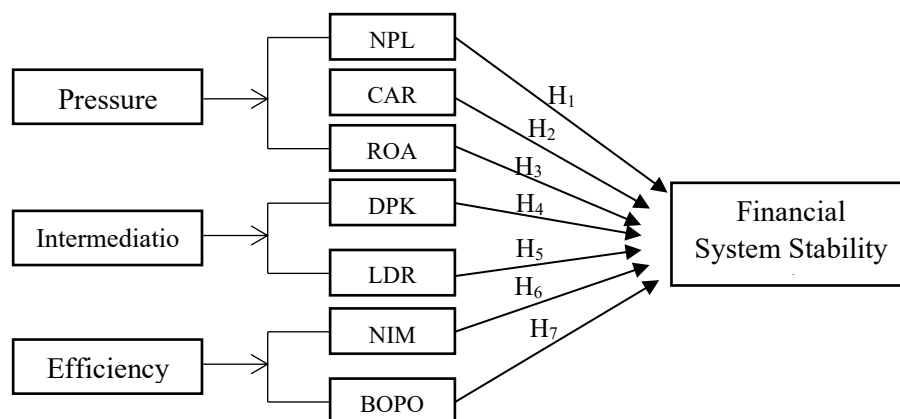


Figure 2. Research Framework



### 3. Research Methods

The secondary data used in the current quantitative research comes from audited banking financial statements covering the years 2018–2023. The financial standing of banks throughout pandemics, recessions, El Nino events, and crises during that time frame was taken into consideration when choosing the research period. The research uses panel data from Indonesia's 72 banks, which make up the banking population. The research sample is selected based on specific criteria using the purposive sampling technique. Panel data regression is used for the analysis because the data structure in this research is panel data. Version 13 of the Econometric Views (Eviews) program is used in this investigation. The Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) techniques are used to carry out the research on the estimation model. The Random Effect Model (REM) is the most suitable model in light of the findings of the Chow Test, Hausman Test, and Lagrange Multiplier Test.

**Table 1.** Selection Criteria for Research Samples

| No                       | Sample Characteristics   | Number of Samples |
|--------------------------|--|-------------------|
| 1                        | Banks listed until 2023 at the OJK, Bank Indonesia, and the Indonesia Stock Exchange (IDX) were taken from the company's website and the IDX | 72                |
| 2                        | Banks that did not fully disclose their audited financial results between 2018 and 2023  | (6)               |
| Number (n)               |  | 66                |
| Total data (n x 6 years) |  | 396               |

As for the operational definition of research variables as follows:

**Table 2.** Definition of Variables Operationally

| Variable Categories        | Variable Name  | Description   |
|----------------------------|--|---|
| Pressure                   | NPLs, or non-performing loans                            | Evaluates the bank's capacity to assume the risk of debtors' nonpayment of loans.   |
|                            | Ratio of Capital Adequacy (CAR)                          | Ratio indicating the degree of risk present in all bank assets  |
|                            | ROA, or return on assets                                 | Evaluates how successfully banks use their assets to generate profits.  |
| Intermediation             | Funds from Third Parties (DPK)                           | Obtaining money from the general population   |
|                            | Ratio of Loan to Deposit (LDR)                           | Measures money sent by third parties as credit  |
| Efficiency                 | Margin of Net Interest (NIM)                             | Interest revenue to interest expense ratio that illustrates the difference between the two  |
|                            | BOPO stands for operations costs and operating expenses. | Ratio indicating how effectively the bank can conduct its operational tasks   |
| Financial System Stability | Z-Score  | The ratios of short-term funding and deposits to liquid assets, total return on bank assets, and equity to assets to the ROA standard deviation |

## 4. Results and Discussion

### 4.1. Panel Data Regression Estimation Selection Technique

#### 4.1.1. Chow Test

To determine if the panel data regression model using the Common Effect Model (CEM) approach is superior to the Fixed Effect Model (FEM), one can employ the Chow test. To do this test, the Cross Section Chi-Square's probability value (p-value) is examined. The null hypothesis ( $H_0$ ) is accepted if the Cross Section Chi-Square p-value is higher than 0.05, indicating that the CEM is a more suitable method. (Baguna et al., 2024) explained that the Chow Test results provide an important basis for selecting an appropriate model in panel data research, before continuing with the Hausman Test for more in-depth model selection analysis. The results of the Chow Test can be seen in Table 3 below.

**Table 3.** Chow Test Results

| Effects Test             | Statistic | d.f.     | Probability |
|--------------------------|-----------|----------|-------------|
| Cross-section F          | 82.388    | (65,323) | 0.000       |
| Cross-section Chi-square | 1135.230  | 65       | 0.000       |

Based on the results of the Cross-Section Chi Square  $p\text{-value} = 0.000 < 0.05$ ,  $H_0$  is not accepted and  $H_1$  is accepted, the Fixed Effect Model is selected to estimate the panel data regression.

#### 4.1.2. Hausman Test

In panel data analysis, the Hausman test is a statistical technique used to choose between the Fixed Effect Model (FEM) and the Random Effect Model (REM). If the Chi-Square probability is larger than the significance level ( $\alpha = 0.05$ ), then  $H_0$  is accepted and REM is selected; if it is less than  $\alpha$ , then FEM is selected, according to Lista (2017). This test tests the null hypothesis ( $H_0$ ) that REM is the correct model. To make sure the FEM is more suitable than the Common Effect model, a Chow test must be performed first.

**Table 4.** Hausman Test Results

| Test Summary         | Chi-Sq. Statistic | Chi-Sq. d.f. | Probability |
|----------------------|-------------------|--------------|-------------|
| Cross-section random | 7.043             | 7            | 0.424       |

Based on the results of the Cross-Section random  $p\text{-value} = 0.424 > 0.05$ ,  $H_0$  is not accepted and  $H_1$  is accepted, then the Random Effect Model is selected to estimate the panel data regression.

#### 4.1.3. Lagrange Multiplier Test

A statistical technique for selecting the best estimation model in panel data analysis, particularly when deciding between the Random Effect Model (REM) and the Common Effect Model (CEM), is the Lagrange Multiplier test. The purpose of this test is to determine whether REM is better than CEM, with the null hypothesis ( $H_0$ ) being that CEM is better than REM. REM is seen more significant if the LM statistical value is greater than the Chi-Square critical value, which results in the rejection of  $H_0$ . In order to guarantee precise model selection in panel data analysis, (Madany et al., 2022) underlined the significance of this test following the Chow and Hausman tests.

**Table 5.** Lagrange Multiplier Test Results

|                      | Test Hypothesis    |                   |                    |
|----------------------|--------------------|-------------------|--------------------|
|                      | Cross-section      | Time              | Both               |
| Breusch-Pagan        | 806.349<br>(0.000) | 1.224<br>(0.268)  | 807.575<br>(0.000) |
| Honda                | 28.396<br>(0.000)  | -1.107<br>(0.865) | 19.296<br>(0.000)  |
| King-Wu              | 28.396<br>(0.000)  | -1.107<br>(0.865) | 6.522<br>(0.000)   |
| Standardized Honda   | 29.629<br>(0.000)  | -0.893<br>(0.814) | 15.317<br>(0.000)  |
| Standardized King-Wu | 29.629<br>(0.000)  | -0.893<br>(0.814) | 3.917<br>(0.000)   |
| Gourieroux, et al.   |                    |                   | 806.349<br>(0.000) |

The analytic results through the Chow Test and the Lagrange Multiplier (LM) Test show that the most appropriate model to use in this study is the Random Effect Model (REM). The LM test results show a probability value of  $0.000 < 0.05$ . (Bertiani et al., 2024) emphasize the importance of this test to ensure that the selected regression model is able to explain the data accurately. Thus, the decision to use REM is based on test results that support the efficiency of the model in analyzing the relationship between the variables studied.

#### 4.2. Panel Data Regression

The Random Effects approach was used in this research's panel data regression analysis. This approach was chosen based on the findings of thorough testing with the Hausman and Chow tests. The Random Effects method turned out to be the best strategy for examining panel data in this

investigation, according to the test results. Table 6, which offers a thorough summary of the results collected, displays the panel data testing results using the Random Effects model.

**Table 6.** Panel Data Test Results

| Variables | Coefficient |
|-----------|-------------|
| C         | 0.437       |
| NPL       | -0.013      |
| CAR       | 0.004       |
| ROA       | -0.017      |
| DPK       | 2.24E-10    |
| LDR       | 0.018       |
| NIM       | -0.061      |
| BOPO      | 0.0004      |

Thus,

$$SSK = 0.437 - 0.013 \cdot NPL + 0.004 \cdot CAR - 0.017 \cdot ROA + 2.2358098535e-10 \cdot DPK + 0.018 \cdot LDR - 0.061 \cdot NIM + 0.0004 \cdot BOPO + [CX=R]$$

The amount that the independent variable contributes to the dependent variable is indicated by the coefficient of determination (R<sup>2</sup>). The findings of this research's coefficient of determination test are displayed in Table 7.

**Table 7.** Coefficient of Determination

| Weighted Statistics |        |                    |         |
|---------------------|--------|--------------------|---------|
| R-squared           | 0.492  | Mean dependent var | 0.219   |
| Adjusted R-squared  | 0.483  | S.D. dependent var | 0.817   |
| S.E. of regression  | 0.587  | Sum squared resid  | 133.994 |
| F-statistic         | 53.880 | Durbin-Watson stat | 1.739   |
| Prob (F-statistic)  | 0.000  |                    |         |

Based on Table 7 and the equation model, it can be seen that the effect of Nonperforming Loan (X<sub>1</sub>), Capital Adequacy Ratio (X<sub>2</sub>), Return on Asset (X<sub>3</sub>), Third Party Fund (X<sub>4</sub>), Loan Deposit Ratio (X<sub>5</sub>), Net Interest Margin (X<sub>6</sub>), and BOPO (X<sub>7</sub>) on Financial System Stability (Y) is 0.483 (Adjusted R-Square = 0.483). This means that the effect of the independent variable on the dependent variable is 48.37%. and the rest is influenced by other variables not included in this study.

### 4.3. Hypothesis Testing

The t test (partial significance test) is used in hypothesis testing to ascertain how the independent variable affects the dependent variable. A statistic called the t test is used to determine if the independent variable has a partial impact on the dependent variable. Table 8 displays the results of the t test. With a significance level of 5% (0.05), one tail, and df = 528 for the equation model, the t table value derived from the t distribution table is 1.96 (df = n - k, n = number of samples, k = number of variables).

**Table 8.** Hypothesis Test Results

| Hypothesis   | T <sub>table</sub> | T <sub>count</sub> | Sig. Value | Description  |
|--|--------------------|--------------------|------------|--------------|
| H1: The stability of the banking financial system is positively and significantly impacted by nonperforming loans        | 1.960              | -0.676             | 0.498      | Not Accepted |
| H2: The stability of the banking financial system is positively and significantly impacted by the capital adequacy ratio | 1.960              | 5.219              | 0.000      | Accepted     |
| H3: The stability of the banking financial system is positively and significantly impacted by return on assets           | 1.960              | -0.718             | 0.472      | Not Accepted |
| H4: The stability of the banking financial system is positively and significantly impacted by third-party money          | 1.960              | 0.395              | 0.692      | Not Accepted |
| H5: The stability of the banking financial system is positively and significantly impacted by the loan deposit ratio     | 1.960              | 16.603             | 0.000      | Accepted     |
| H6: The stability of the banking financial system is positively and significantly impacted by net interest margin        | 1.960              | -2.789             | 0.005      | Accepted     |
| H7: BOPO significantly and favorably affects the banking financial system's stability                                    | 1.960              | 0.258              | 0.796      | Not Accepted |

The capital adequacy ratio and loan deposit ratio have t values more than the t table value, according to Table 8's data. The hypothesis is accepted and significant, and the net interest margin is also



significantly accepted, but the t count is less than 1.960. While nonperforming loans, return on assets, third party funds, and BOPO have a t value  $< t$  table value, so the hypothesis is not accepted. The regression analysis that has been done aims to determine the relationship between the independent variables (nonperforming loans, capital adequacy ratio, return on assets, third party funds, loan deposit ratio, net interest margin, and BOPO) with the dependent variable (financial system stability).

#### 4.4. Discussion

##### The Effects of Nonperforming Loans on Indonesia's Banking Financial System Stability

The initial hypothesis NPLs have an impact on Indonesia's banking financial system's stability. Since the partial test's t-count value was -0.676 and its significance value was 0.498 higher than  $\alpha$  0.05, the analysis's findings indicated that NPLs had no impact on the stability of the financial system. The first hypothesis, according to these findings, that NPLs have an impact on the assessment of financial system soundness, is unsupported.

The results of the research clarify that the NPL factor has no bearing on the stability of Indonesia's banking and financial sector. NPL has no discernible impact on the stability of Indonesia's traditional banking sector, according to research findings (Devi Febriani, 2022). However, a number of other studies have demonstrated that rigorous oversight and overall bank performance have a greater impact on financial stability than only depending on metrics like non-performing loans (NPLs) (Ketaren & Haryanto, 2020). This emphasizes how intricately NPLs and financial stability are related, with other elements like liquidity and profitability also playing a big part.

The association may also be impacted by other variables like macroeconomic circumstances. Banks are typically more adept at managing credit risk when economic growth is steady and liquidity is adequate. Even when NPLs are high, financial system stability can still be maintained (Latifah et al., 2023). According to research, maintaining low non-performing loan (NPL) levels is crucial for bolstering banks' financial stability and profitability (Babar et al., 2019). On the direct effect of NPLs on the stability of the financial system as a whole, however, not all research agrees.

Thus, the results identify the dynamics of the relationship between NPLs and financial system stability in Indonesia. When no significant effect is found, regulators and stakeholders need to apply a more holistic approach in analyzing banking stability. Operational efficiency and effective supervision should also be considered as key elements to maintain the health of the banking sector.

##### The Effects of the Capital Adequacy Ratio on Indonesia's Banking Financial System Stability

Second hypothesis CAR has a significant effect on the stability of the banking financial system in Indonesia. The results of the analysis show a significant and positive effect of CAR on the stability of the financial system because in the partial test the t-count value is 5,219 with a significance value of 0.000 greater than  $\alpha$  0.05. The second hypothesis, according to which CAR influences the assessment of financial system stability, is validated by these findings.

According to research on the impact of the capital adequacy ratio (CAR) on the stability of the banking system, CAR is essential to preserving the banks' financial stability. Research (Olawale, 2024) that examines capital adequacy and financial system stability in Nigerian banks supports this, demonstrating that a high CAR improves banks' capacity to manage financial risks. This demonstrates that banks with sufficient capital are better equipped to withstand economic shocks and carry on uninterrupted.

Research (Sang, 2021) also confirmed the positive relationship between CAR and bank financial stability. Based on data from 18 commercial banks over the period 2010-2020, it was found that an increase in CAR contributed to the financial stability of banking in Vietnam. This finding highlights the importance of effective capital management to ensure bank resilience in volatile market conditions.

This phenomenon is also reflected in global banking regulations such as the Basel III standards, which set stricter capital requirements to improve the resilience of the financial system. Research (Al-Sharkas & Al-Sharkas, 2022) shows that banks that comply with the standards tend to perform better and are better able to deal with liquidity and solvency risks. Therefore, strengthening regulations

related to CAR is a strategic step in maintaining financial system stability, especially in developing countries such as Indonesia.

Overall, the results of the research lend credence to the idea that CAR significantly affects Indonesia's banking and financial system's stability. In addition to meeting legal criteria, a rise in CAR serves as a gauge of financial health and can boost public trust in the banking industry. Financial authorities must keep an eye on and support efficient CAR management in order to preserve national economic stability, according to empirical data from several nations (Indriani et al., 2020), (Japin & Ciptawan, 2022).

### **The Effects of Return on Assets on Indonesia's Banking Financial System Stability**

According to the third hypothesis, ROA has an impact on the stability of Indonesia's banking and financial system. The analysis's findings indicate that ROA has no impact on the financial system's stability because, in the partial test, the t-count value is -0.718 and the significance value is 0.472 higher than  $\alpha$  0.05. Contrary to some earlier research that suggests banking performance can promote financial stability, the findings demonstrated that ROA has no discernible impact on the stability of the banking financial system in Indonesia (Kurnia et al., 2024).

ROA is often used to measure the efficiency of banks in managing assets to generate profits. However, these findings suggest that while ROA is an important indicator to evaluate profitability, other factors such as Non-Performing Loans (NPL) and Good Corporate Governance (GCG) may be more relevant in determining financial system stability. Research by (Diaz & Pandey, 2019) and (Suharyanto et al., 2024) revealed that various financial ratios have different influences on bank performance and stability, highlighting the need for a thorough analysis of the various factors that affect overall banking performance.

Furthermore, financial system stability is not only influenced by the performance of individual banks, but also by regulatory policies and macroeconomic conditions. Banking sector instability often arises from a combination of various complex external and internal factors. Therefore, while ROA remains a significant indicator in assessing bank performance, evaluating financial system stability requires a more comprehensive approach that considers the diverse variables that play a role in influencing bank risk and performance (Kusuma, 2021), (Lorenza et al., 2022).

### **The Effects of Third-Party Funds on Indonesia's Banking Financial System Stability**

Fourth hypothesis of third party funds affect the stability of the banking financial system in Indonesia. The results of the analysis show that there is no effect of third party funds on the stability of the financial system because in the partial test the t-count value is 0.395 with a significance value of 0.692 greater than  $\alpha$  0.05. Based on the test results, the fourth hypothesis stating that third party funds affect the determination of financial system stability is not supported. This result is in line with research (Awanti, 2018), which claims that while deposits constitute a significant source of liquidity, financial stability is also influenced by other elements like macroprudential regulations and worldwide economic conditions.

This outcome illustrates the intricacy of Indonesia's financial system, where stability is not primarily determined by deposits. As an illustration, the Financial Services Authority (OJK) reported that even though deposits grew by 3.73% in 2023, the stability of the financial services sector was maintained due to strong capital support and a manageable risk profile. Increased lending from commercial banks might impact financial system stability more than deposits, according to research (Morgan & Pontines, 2014), highlighting the significance of credit intermediation in this regard.

Regulators must create a more comprehensive plan to preserve the stability of the financial system in light of the findings of this study. Strengthening financial inclusion, which attempts to expand people's access to financial services, is one strategy that can be used. According to (Han & Melecky, 2013), expanding savings options can help banks' funding bases, particularly in times of crisis. Therefore, in order to create more sustainable financial system stability in Indonesia, attention must also be paid to financial inclusion and risk management measures, even though deposits continue to play a significant role.

### **The Effects of Loan Deposit Ratio on Indonesia's Banking and Financial System Stability**

The stability of Indonesia's banking and financial system is significantly impacted by the fifth LDR theory. The analysis's findings demonstrate that LDR has a considerable and favorable impact on the financial system's stability, as evidenced by the partial test's t-count value of 16,603 and significance value of 0.000 greater than  $\alpha$  0.05. These findings lend credence to the fifth hypothesis, which holds that LDR influences the assessment of financial system stability.

The bank's ability to fulfill short-term obligations is reflected in LDR, a crucial indication. If the bank is actively lending to consumers, as indicated by a high LDR ratio, revenue and profitability could rise (Wiranthie & Putranto, 2022). Research (Dwinanda & Sulistyowati, 2021) shows that financial system stability is highly dependent on banks' ability to manage liquidity risk and reduce the possibility of default. Thus, a well-managed LDR can contribute to the financial health of banks and overall system stability.

It should be highlighted, therefore, that the short- and long-term effects of LDR on the stability of the financial system may vary. Bank stability may be negatively impacted by an increase in non-performing loans (NPLs), according to research (Ghenimi et al., 2017). For this reason, banks should prioritize both raising LDR and efficiently managing credit risk. Therefore, to guarantee the long-term stability of Indonesia's financial system, a comprehensive strategy to financial ratio management is required.

### **The Effects of Net Interest Margin on Indonesia's Banking and Financial System Stability**

The stability of Indonesia's banking and financial system is significantly impacted by the sixth NIM theory. Because the partial test's t-count value was -2.789 and the significance value was 0.005 higher than  $\alpha$  0.05, the analysis's findings demonstrated a negative and substantial impact of NIM on the stability of the financial system. These findings lend credence to the sixth hypothesis, which holds that NIM influences the assessment of financial system stability. A decrease in NIM can reflect the bank's inability to optimize income from productive assets, which ultimately reduces profitability and increases the risk to financial stability (Mulyadi & Cipta, 2022).

This outcome is in line with past research that found NIM to be a significant predictor of a bank's ability to generate net interest income. A low NIM could be a sign of inefficient lending by banks, which could raise the proportion of non-performing loans (NPLs). According to research (Surtikanti et al., 2022), a high NIM denotes superior bank management skills in overseeing productive assets to produce interest revenue, which benefits the bank's financial stability and profitability.

In addition, good NIM management is also a concern in macroprudential policy. Bank Indonesia and the Financial Services Authority are advised to monitor NIM dynamics as an indicator of banking health (Aviliani et al., 2015). Research (Iskandar, 2021) found that NIM has a significant positive effect on profitability, which indicates that banks with higher NIM tend to have more stable financial conditions. Thus, effective NIM management is expected to increase bank resilience to economic shocks and maintain financial system stability in Indonesia.

### **The Effects of BOPO on Indonesia's Banking Financial System Stability**

The stability of Indonesia's banking and financial system is impacted by the seventh BOPO theory. The analysis's findings demonstrated that BOPO had no impact on the financial system's stability, as the partial test's t-count value was 0.258 and its significance value was 0.796 higher than  $\alpha$  0.05. These findings refute the seventh hypothesis, which holds that BOPO influences the assessment of financial system stability. This result is consistent with research (Nur Syfa & Dailibas, 2023) that indicates the BOPO ratio has no discernible effect on Return on Assets (ROA) in Indonesian Islamic banks. This suggests that a decline in profitability may be a result of inadequate operational efficiency.

According to another research investigation, BOPO significantly impairs bank stability. The stability level of the bank decreases as the BOPO ratio increases. These findings imply that while BOPO is a measure of operational effectiveness, other elements like credit risk and liquidity have a greater impact on the stability of the financial system. The significance of risk management and efficient supervision in preserving banking stability is emphasized by this research.

This reflects the complexity of the relationship between financial variables in the banking system. Although BOPO might indicate operational efficiency, studies reveal that this metric is insufficient on its own to guarantee the stability of the financial system. Regulators and bank managers need to consider various other factors that can affect stability, such as risk management and solid capital policies. Research (Alfiyan et al., 2023) also confirms the importance of the relationship between operational efficiency and stability, highlighting the need for a holistic approach in managing the financial system.

## 5. Conclusion

This research demonstrates that measurable and powerful instruments of pressure, intermediation, and efficiency are important factors in maintaining banking stability. In general, each indicator of financial stability—namely, CAR, LDR, and NIM, is supported and influential, so that the financial stability of banking in Indonesia is positively and significantly affected. This means that banks must advocate for effective CAR management, that the use of well-managed banking funds can contribute to bank health, and that effective NIM management is anticipated to increase bank resilience to economic shocks and maintain financial system stability in Indonesia. In the face of current economic dynamics, banks in Indonesia need to continue to develop strategies that focus on risk management, capital strengthening, and the adoption of financial technology. In addition, it is important to take into account the diversity of financial institutions in Indonesia so that policies can support overall stability, not only for large banks, but also for small banks and other financial institutions.

A limitation of this research is that it excludes external factors such as monetary policy, inflation, or global political turmoil, as well as qualitative variables such as risk management and banking technology innovation. The research period covering the COVID-19 pandemic and global crisis was also not specifically analysed, so the findings may not apply to different contexts. The research is generalised and less specific to banks with different risk profiles, such as Islamic versus conventional banks. These limitations need to be considered in the interpretation of the results and implementation of the recommendations, while future research could expand the sample, add macroeconomic variables, or use more complex analysis methods for more comprehensive results. Future research will explore the implementation of environmental, social, governance (ESG), and its impact on green company performance in Indonesia as a sustainable finance strategy.

## Acknowledgment

The Institute for Research and Community Service (LPPM) at Al-Madani College of Economics is providing full support for this research for the fiscal year 2024.

## References

- Al-Sharkas, A. A., & Al-Sharkas, T. A. (2022). the Impact on Bank Profitability: Testing for Capital Adequacy Ratio, Cost-Income Ratio and Non-Performing Loans in Emerging Markets. *Journal of Governance and Regulation*, 11(1 special issue), 231–243. <https://doi.org/10.22495/jgrv11i1siart4>
- Al-Zoubi, H. A., O'Sullivan, J. A., & Alwathnani, A. M. (2018). Business cycles, financial cycles and capital structure. *Annals of Finance*, 14(1), 105–123. <https://doi.org/10.1007/s10436-017-0306-z>
- Alfiyan, M., Wahyudi, R., Maimunah, M. B. A., & Riduwan, R. (2023). Financial stability in Indonesian Islamic banking using Z-Score: Before and during Covid-19. *Al-Uqud : Journal of Islamic Economics*, 7(1), 17–32. <https://doi.org/10.26740/aluqud.v7n1.p17-32>
- Almanaseer, M. (2014). The Impact of the Financial Crisis on the Islamic Banks Profitability - Evidence from GCC. *International Journal of Financial Research*, 5(3). <https://doi.org/10.5430/ijfr.v5n3p176>
- Ananda, C., Madyoningrum, A. W., Sari, S. P., & Shafitranata, S. (2024). Pengaruh Sales Growth, Likuiditas, dan Aset Tangibility terhadap Struktur Modal. *Studi Akuntansi, Keuangan, Dan*



- Manajemen*, 4(1 SE-Articles), 33–43. <https://doi.org/10.35912/sakman.v4i1.3082>
- Anisa, S., Shafitranata, S., MT, R. A., & Octavia, R. (2023). Pengaruh rasio keuangan terhadap financial distress perusahaan makanan dan minuman di Indonesia sebelum dan saat Covid-19. *Nominal Barometer Riset Akuntansi Dan Manajemen*, 12(2), 166–176. <https://doi.org/10.21831/nominal.v12i2.58346>
- Ashraf, D., Rizwan, M. S., & L'Huillier, B. (2016). A net stable funding ratio for Islamic banks and its impact on financial stability: An international investigation. *Journal of Financial Stability*, 25, 47–57. <https://doi.org/10.1016/j.jfs.2016.06.010>
- Aviliani, A., Siregar, H., Maulana, T. N. A., & Hasanah, H. (2015). The Impact of Macroeconomic Condition on The Banks Performance in Indonesia. *Buletin Ekonomi Moneter Dan Perbankan*, 17(4), 379–402. <https://doi.org/10.21098/bemp.v17i4.503>
- Awanti, E. (2018). Analisis Pengaruh Inklusi Keuangan Terhadap Stabilitas Sistem Keuangan Di Negara Berkembang Kawasan Asia Tenggara. *Jurnal Ilmu Ekonomi Terapan*, 2(2), 99–121. <https://doi.org/10.20473/jiet.v2i2.6080>
- Babar, S., Latief, R., Ashraf, S., & Nawaz, S. (2019). Financial stability index for the financial sector of Pakistan. *Economies*, 7(3), 81.
- Baguna, M. M., Tulung, J. E., & Rumokoy, L. J. (2024). the Effect of Investment Knowledge and Risk Perception on Investment Intention in the Capital Market (Study on Lecturers and Students At Faculty of Economics and Business Sam Ratulangi University). *Jurnal Ekonomi, Manajemen Bisnis Dan Akuntansi (EMBA)*, 10(01), 261–273.
- Bank Indonesia. (2024). *Mendorong Peningkatan Intermediasi di Tengah Ketidakpastian Global* (Vol. 42).
- Bertiani, M. D., Debataraja, N. N., & Imro'ah, N. (2024). Penerapan Model Regresi Unbalanced Panels Dengan Metode Feasible Generalized Least Square (Fgls). *Buletin Ilmiah Math. Stat. Dan Terapannya (Bimaster)*, 13(1), 1–8.
- Devi Febriani, R. D. Y. (2022). Pengaruh NPL dan Indikasi FFR Terhadap Stabilitas Perbankan Pada Masa Pandemi COvid-19. *Jurnal Riset Akuntansi Dan Keuangan*, 10(3), 503–518. <https://doi.org/10.17509/jrak.v10i3.46957>
- Dewi, S. E. (2017). Analisis Faktor-Faktor Yang Mempengaruhi Stabilitas Institusi Keuangan Di Indonesia. *Jurnal Ilmiah Mahasiswa FEB*, 5(2).
- Diaz, J. F., & Pandey, R. (2019). Factors Affecting Return on Assets of Us Technology and Financial Corporations. *Jurnal Manajemen Dan Kewirausahaan*, 21(2), 134–144. <https://doi.org/10.9744/jmk.21.2.134-144>
- Dwinanda, I. Z., & Sulistyowati, C. (2021). The Effect of Credit Risk and Liquidity Risk on Bank Stability. *Jurnal Ilmu Ekonomi Terapan*, 6(2), 255. <https://doi.org/10.20473/jiet.v6i2.31144>
- Fatoni, A., & Sidiq, S. (2019). Analisis perbandingan stabilitas sistem perbankan syariah dan konvensional di Indonesia. *Eksposisi: Jurnal Ekonomi, Keuangan, Perbankan Dan Akuntansi*, 11(2), 179–198. <https://doi.org/10.35313/ekspansi.v11i2.1350>
- Febriyanti, A., Hidayatin Nisa, N., Administrasi Niaga, J., & Negeri Malang, P. (2020). Inklusi Keuangan dan Stabilitas Sistem Keuangan (Bank Z-Score) di Asia. *Jurnal Ekonomi Dan Kewirausahaan*, 14(1).
- Ghenimi, A., Chaibi, H., & Omri, M. A. B. (2017). The effects of liquidity risk and credit risk on bank stability: Evidence from the MENA region. *Borsa Istanbul Review*, 17(4), 238–248. <https://doi.org/10.1016/j.bir.2017.05.002>
- Ghroubi, M. (2023). Linkages between capital, bank financing and economic growth: the case of Islamic and conventional banks from a panel of Muslim countries. *Journal of Islamic Accounting and Business Research*. <https://doi.org/10.1108/JIABR-01-2023-0036>
- Han, R., & Melecky, M. (2013). Financial inclusion for financial stability access to bank deposits and the growth of deposits in the Global Financial Crisis. *World Development Report*, 6577(August 2013), 2–24. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2312982](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2312982)
- Hidayat, S. E., Sakti, M. R. P., & Al-Balushi, R. A. A. (2021). Risk, efficiency and financial performance in the GCC banking industry: Islamic versus conventional banks. *Journal of Islamic Accounting and Business Research*, 12(4), 564–592.
- Indriani, E., Haryoso, P., & Choerudin, A. (2020). Is There A Trade-Off Between capital Adequacy



- And Profitability? (Empirical Study on Commercial Banks in Indonesia). *Talent Development & Excellence*, 12(1), 4580–4588. <http://www.iratde.com>
- Iskandar, Y. (2021). Pengaruh Net Interest Margin, Return On Equity, Return On Asset, Capital Adequacy Ratio terhadap Price Book Value Pada Bank Umum di Indonesia. *DIALEKTIKA : Jurnal Ekonomi Dan Ilmu Sosial*, 6(1), 9–16. <https://doi.org/10.36636/dialektika.v6i1.592>
- Japin, G., & Ciptawan, C. (2022). The Impact of Capital Adequacy Ratio, Capital Structure, Non-Performing Loan, and Return on Assets Towards Firm Value of .... *Proceeding National Conference Business* ..., 155–175. <https://ojs.uph.edu/index.php/NCBMA/article/view/5810%0Ahttps://ojs.uph.edu/index.php/NCBMA/article/viewFile/5810/2585>
- Kenzen, S., & Afandy, C. (2023). Pengaruh Capital Adequacy Ratio (Car), Loan To Deposit Ratio (Ldr) Dan Non Performing Loan (Npl) Terhadap Return on Assets (Roa) Pada Sektor Perbankan Di Bursa Efek Indonesia (Bei) Tahun 2018-2022 Dengan Suku Bunga Sebagai Variabel Moderasi. *Jurnal Manajemen Terapan Dan Keuangan*, 12(04), 1185–1196. <https://online-journal.unja.ac.id/mankeu/article/view/29936>
- Ketaren, E. V., & Haryanto, A. M. (2020). Pengaruh Kinerja Keuangan Terhadap Stabilitas Perbankan Yang Terdaftar Di Bursa Efek Indonesia (Studi Kasus pada Bank yang Terdaftar di BEI Tahun 2014-2018). *Diponegoro Journal of Management*, 9(2), 1–13. <http://ejournal-s1.undip.ac.id/index.php/dbr>
- Kiryanto, R., & Nisaputra, R. (2023, December 4). Menakar Prospek dan Tantangan Perbankan 2024. *Infobanknews*, 1–1. <https://infobanknews.com/menakar-prospek-dan-tantangan-perbankan-2024/>
- Kurnia, R., Baroroh, H., Hayati, R. F., Melzatia, H. H., & Fenitra, R. M. (2024). Financial Stability Of Indonesia ' S Islamic Banks : *Ekonomika Syariah: Journal of Economic Studies*, 8(1), 1–16. <https://doi.org/http://dx.doi.org/10.30983/es.v8i1.8082> EKONOMIKA
- Kusuma, M. (2021). Measurement of Return on Asset (ROA) based on Comprehensive Income and its Ability to Predict Investment Returns: an Empirical Evidence on Go Public Companies in Indonesia before and during the Covid-19 Pandemic. *Ekuilibrium : Jurnal Ilmiah Bidang Ilmu Ekonomi*, 16(1), 94. <https://doi.org/10.24269/ekuilibrium.v16i1.3238>
- Latifah, F., Lasmana, A., & Susandra, F. (2023). Analisis Non Performing Loan Dalam Rangka Restrukturasi Kredit Macet Pada Pt.Bank Rakyat Indonesia (Persero) Tbk Unit Cipayung Bogor. *Jurnal Ekonomi Akuntansi, Manajemen*, 2(2), 91–107.
- Lorenza, R. S., Octavia, R., Shafitranata, S., & Madyoningrum, A. W. (2022). Dampak Covid 19 Terhadap Perubahan Harga Saham Perbankan di Indonesia Sebelum dan Saat Pandemi. *Jurnal Akuntansi, Keuangan, Dan Manajemen*, 4(1), 43–56. <https://doi.org/https://doi.org/10.35912/jakman.v4i1.1707>
- Madany, N., Ruliana, R., & Rais, Z. (2022). Regresi Data Panel dan Aplikasinya dalam Kinerja Keuangan terhadap Pertumbuhan Laba Perusahaan Idx Lq45 Bursa Efek Indonesia. *VARIANSI: Journal of Statistics and Its Application on Teaching and Research*, 4(2), 79–94.
- Mahmudah, A., Maghfiroh, A. nur, Salukh, A., & Rodhiyah, M. (2022). Nim Sebagai Variabel Intervening Pengaruh Bopo Terhadap Profitabilitas (Studi Pada Perusahaan Perbankan Yang Terdaftar Di Bei Tahun 2017-2021). *Jurnal Ekonomi Bisnis Dan Akuntansi*, 2(3), 357–367. <https://doi.org/10.55606/jebaku.v2i3.889>
- Morgan, P., & Pontines, V. (2014). Financial Stability and Financial Inclusion. *SSRN Electronic Journal*, 488. <https://doi.org/10.2139/ssrn.2464018>
- Muhri, A., Habbe, A. H., & Rura, Y. (2022). Analisis Perbandingan Stabilitas Bank Syariah dan Bank Konvensional. *Owner*, 7(1), 346–366. <https://doi.org/10.33395/owner.v7i1.1360>
- Mulyadi, N. L. A., & Cipta, W. (2022). Pengaruh Net Interest Margin dan Non Performing Loan Terhadap Return On Assets pada Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia. *Jurnal Manajemen Dan Bisnis*, 4(3), 327–336. <https://ejournal.undiksha.ac.id/index.php/Prospek/article/view/40015>
- Nosheen, & Rashid, A. (2019). Business orientation, efficiency, and credit quality across business cycle: Islamic versus conventional banking. Are there any lessons for Europe and Baltic States? *Baltic Journal of Economics*, 19(1), 105–135. <https://doi.org/10.1080/1406099X.2018.1560947>

- Nur Maghfiroh, A., & Salukh, A. (2022). NIM Sebagai Variabel Intervening Pengaruh Bopo Terhadap Profitabilitas (Studi Pada Perusahaan Perbankan Yang Terdaftar di BEI Tahun 2017-2021). *Jurnal Ekonomi Bisnis Dan Akuntansi*, 2(3), 357–367.
- Nur Syfa, A., & Dailibas. (2023). Pengaruh Car Dan Bopo Terhadap Roa Bank Umum Syariah Di Indonesia. *Jurnal Ekonomi Syariah Dan Bisnis*, 6(1). <https://doi.org/10.31949/maro.v6i1.4105>
- Olawale, A. (2024). Capital adequacy and financial stability : A study of Nigerian banks ' resilience in a volatile economy. *GSC Advanced Research and Reviews*, 21(01), 1–12. <https://doi.org/https://doi.org/10.30574/gscarr.2024.21.1.0346>
- Otoritas Jasa Keuangan. (2024). Sektor Jasa Keuangan Kokoh Hadapi Potensi Perlambatan Pertumbuhan Ekonomi Global. *SIARAN PERS*, 1–19.
- Parsa, M. (2022). Efficiency and stability of Islamic vs. conventional banking models: A meta frontier analysis. *Journal of Sustainable Finance & Investment*, 12(3), 849–869. <https://doi.org/https://doi.org/10.1080/20430795.2020.1803665>
- Pramana, I. G. G. A. (2024). *Kinerja Pasar Properti H2 2023 dan Outlook Pasar Properti di Tahun Pemilu*.
- Putra, I. G. C., Novitasari, L. G., Mahaputra, I. N. K., & Sudiartana, I. M. (2021). The Influence of Macroeconomic Indicators on Profitability: A Case Study of Regional Development Banks in Indonesia. *Journal of Asian Finance, Economics and Business*, 8(6), 79–87. <https://doi.org/10.13106/jafeb.2021.vol8.no6.0079>
- Rosadi, R. M. V., & Ramadhan, Y. (2024). Contribution Of CAR, NPL, LDR, BOPO, And NIM To The Return On Asset Of Regional Development Bank Kontribusi CAR, NPL, LDR, BOPO, DAN NIM terhadap Return On Asset Bank Pembangunan Daerahid 2 \*Corresponding Author. *Management Studies and Entrepreneurship Journal*, 5(2), 3802–3818. <http://journal.yrpiiku.com/index.php/msej>
- Sang, N. M. (2021). Capital adequacy ratio and a bank's financial stability in Vietnam. *Banks and Bank Systems*, 16(4), 61–71. [https://doi.org/10.21511/bbs.16\(4\).2021.06](https://doi.org/10.21511/bbs.16(4).2021.06)
- Setiawati, S. (2023, October 19). Dunia Rawan Krisis! IMF Minta Perbankan Segera Lakukan Ini. *CNBC Indonesia*, 1–1. <https://www.cnbcindonesia.com/research/20231019083934-128-481823/dunia-rawan-krisis-imf-minta-perbankan-segera-lakukan-ini>
- Shafitranata, Rizka Chairunnisa, & Arshed, N. (2020). Prediction of Islamic Banking Bankruptcy in Indonesia: Comparative Study of Altman Z-Score and Springate Models. *IKONOMIKA: Jurnal Ekonomi Dan Bisnis Islam*, 5(2), 231–248. <https://doi.org/https://doi.org/10.24042/febi.v5i2.7747>
- Suharyanto, Iskandar, Y., Zaki, A., & Widhayani, P. S. (2024). The Effect of Financial Performance on Return on Assets in Banks Before and During the Covid-19 Pandemic in Indonesia. *Jurnal Aplikasi Manajemen*, 22(1), 72–82. <https://doi.org/10.21776/ub.jam.2024.022.01.06>
- Suhendra, I., & Ronaldo, E. (2017). Pengaruh Intermediasi Perbankan Terhadap Pertumbuhan Ekonomi Indonesia. *Tirtayasa Ekonomika*, 12(1), 169–195.
- Surtikanti, S., Saepudin, A., Arizona, Y., & Anggadini, S. D. (2022). The Influence of Capital Adequacy Ratio (CAR) and Net Interest Margin (NIM) on Profitability (Survey on Foreign Exchange Commercial Banks Listed in Indonesia Stock Exchange the Year 2011-2015). *Indonesian Journal of Economics, Social, and Humanities*, 4(2), 111–122. <https://doi.org/10.31258/ijesh.4.2.111-122>
- Wati, E. S. C., Oldy Rotinsulu, T., Siwu, H. F. D. J., Pembangunan, J. E., Ekonomi, F., & Bisnis, D. (2019). Analisis faktor-faktor yang mempengaruhi stabilitas sistem keuangan di indonesia periode 2013: q1–2018: q4. *Jurnal Berkala Ilmiah Efisiensi*, 19(3), 149–159.
- Wiranthie, I. K., & Putranto, H. (2022). Analisis Pengaruh Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR) dan Non Performing Loan (NPL) terhadap Return On Asset (ROA). *Jurnal Ekonomi, Manajemen Dan Perbankan (Journal of Economics, Management and Banking)*, 6(1), 13. <https://doi.org/10.35384/jemp.v6i1.229>