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## THE IMPACT OF NON-PERFORMING LOANS ON COMPANY PROFITS

Laynita Sari<sup>1</sup>, Febryandhie Ananda<sup>2</sup>, Dewi Zulfia<sup>3</sup>, Muhammad Rivandi<sup>4</sup>, Mike Kusuma Dewi<sup>5</sup> <sup>1,2,3,4,5</sup>Sekolah Tinggi Ilmu Ekonomi KBP, Padang E-mail: laynitasari@akbpstie.ac.id

#### Abstract

This study aims to determine the effect of Non-Performing Loans on the profits of banking companies in Indonesia. Non-performing loans and company profit are obtained from the company's financial statements and from the Indonesia Stock Exchange website. The research sample amounted to four banks of State-Owned Enterprises in Indonesia from 2014-2022. The type of data used is secondary data in the form of annual reports of State-Owned Enterprises Banks for the 2014-2022 period. The data analysis technique uses multiple linear regression analysis with the help of the E-Views program version 12. This study found that Non-Performing Loans provide empirical evidence of a significant negative effect on the profits of banking companies of State-Owned Enterprises Banks in 2014-2022 significantly. **Keywords**: Non-Performing Loan, Profit, Bank State-Owned Enterprise

#### INTRODUCTION

The economy of Indonesia, one of the largest emerging economies in the world, has experienced significant growth in the banking sector over the past few decades. Banking is one of the backbones of supporting economic activity, which aims to mobilize public funds to support economic growth and development. State-owned banks (State-Owned Enterprises) are government-owned banks that get more trust from the public because they are government-owned banks (L. Sari et al., 2020).

Profit is an important parameter in assessing the financial performance of State-Owned Commercial Banks (SOEs), which have a strategic role in supporting national economic development (L. Sari, Mary, et al., 2021). As an integral part of the country's financial sector, SOEs are responsible for the allocation of significant financial resources and the management of national assets. Therefore, the profits of SOEs not only reflect the financial health of these companies but also have a significant impact on the national economy as a whole (Yusuf et al., 2022).

When SOEs record stable and sustainable profits, this reflects operational efficiency and the company's ability to support economic growth through sustainable investment. Good profits also enable SOEs to finance strategic projects that support infrastructure development and public services. In addition, high profits can boost investor confidence and boost the growth of other business sectors (L. Sari, Nurfazira, et al., 2021; L. Sari et al., 2023).

However, there is a phenomenon that occurs in the profit of state-owned banks from 2014 to 2022, where the profit position of state-owned banks as measured by Return On Assets fluctuates. Many factors affect the fluctuation of the profit of this state-owned bank. One of them is due to the global pandemic which disrupted the world economic system.

In addition, one of the concerns in banks, especially state-owned banks, is credit risk reflected in non-performing loan (NPL) indicators (Amrani & Najab, 2023). Non-performing loans (NPLs), or non-performing loans, are one of the critical indicators in the banking sector that have a significant impact on a country's economic



and financial stability (Akhter, 2023). As NPL levels in the banking system increase, this can affect not only the financial health of the banks themselves but also the profits of companies as a whole (Kovalenko et al., 2023). Therefore, this study aims to analyze and examine the impact of Non-Performing Loans on company profits (Gashi et al., 2022; Handoyo et al., 2023; Kanapickiene et al., 2022).

As one of the main elements in the financial sector, the role of banks in supporting economic growth is very important. However, when banks face high NPL problems, this can reduce their ability to lend to the real sector of the economy, which in turn can slow economic growth (Akhter, 2023). In addition, the impact of NPLs can also spread to other business sectors, because companies related to the banking sector will feel greater financial pressure (Ha & Nguyen, 2023; Marouli et al., 2023; S. Sari et al., 2022).

In this context, a comprehensive analysis of how NPLs can affect a company's bottom line becomes very important (Oyetade et al., 2022). We need to understand whether an increase in NPLs can significantly reduce a company's bottom line, and if so, how a company can deal with it and mitigate its negative impact. In addition, what factors might affect the relationship between NPLs and corporate profits also need to be explored (de Jonghe et al., 2020; Duong et al., 2023; Özen et al., 2022).

Previous research examining the effect of Non-Performing Loans on corporate profits was examined by (Izzah et al., 2019; Korri & Baskara, 2019; Suprianto et al., 2020) concluded that Non-Performing Loans have a negative effect on the company's profits. Meanwhile, research conducted by (Fazriani & Mais, 2019; Malik, 2020; Safitri, 2019) found that Non-Performing Loans have a positive effect on company profits. Research conducted by (Ananda, 2020; Anugrah & Yatna, 2020) concluded that Non-Performing Loans have no effect on the profits of banking companies. Based on the inconsistencies in the results of previous studies, the author will conduct another study on the effect of Non-Performing Loans on the corporate profits of State-Owned Enterprises Banks from 2014-2022.

## State-Owned Enterprise Bank

# LITERATURE REVIEW

Government Banks are regulated in Law No. 19 of 2003 concerning State-Owned Enterprises (hereinafter referred to as the SOE Law). This law provides the definition of SOEs themselves. Article 1 point 1 of the SOE Law states that SOEs are business entities whose entire or most capital is owned by the state through direct participation derived from separated state assets. In Indonesia, there are four stateowned banks that are included in the category of the Association of State-Owned Banks or Himbara. The four banks include Bank Rakyat Indonesia (BRI), Bank Mandiri, Bank Negara Indonesia (BNI) and Bank Tabungan Negara (BTN) (Kasmir, 2018).

## **Company Profit**

Company profit is one of the key measures in measuring the success and performance of a business. It reflects the amount of money left over after all expenses and expenses have been deducted from income. Profit is not only a financial indicator, but also an important signal about the company's ability to make a profit from its operations. Consistent and sustainable profits are a positive indication that the company has managed to efficiently manage its resources and assets, identify opportunities for growth, and maintain its competitiveness in the market. In addition, profit also plays an important role in attracting investors, supporting business growth, and ensuring continuity of company operations. Therefore, a good understanding of



the factors that affect a company's bottom line and how to optimize them is essential for the company's management and stakeholders (Kasmir, 2018).

In this study, profit is measured using Return on Assets (ROA), which is one of the important financial ratios to measure a company's profitability. ROA calculates how efficient a company is in generating profits from its assets. ROA provides an idea of the extent to which a company can generate a return on its asset investments. The higher the ROA, the more efficient the company is in utilizing its assets to generate profits. ROA is often used in financial analysis to compare profitability between firms in the same industry or to track a company's performance over time (Kasmir, 2018).

Return On Assets (ROA) is an important profitability indicator to measure the performance of a bank. ROA focuses the company's ability to earn profits in the company's operational activities by utilizing its assets. So in this study, ROA was used as a measure of banking performance (Almaqtari et al., 2019; Nerantzidis et al., 2023).

Profitability is the ability of a bank to generate profits effectively and efficiently. ROA is said to be important for banks because ROA is used to measure the effectiveness of companies in generating profits by utilizing their assets. ROA is the ratio between profit after tax and total assets. Return on total assets is a relevant measure of operating efficiency. This value reflects the company's return on all assets (funding) provided to the company (Kyei et al., 2023).

Based on SE BI No.13/30/DPNP dated December 16, 2011, the formula used in calculating ROA is as follows:

$$ROA = \frac{Profit\ before\ tax}{Total\ Assets}\ x\ 100\%$$

### Non Performing Loan

NPL (Non Performing Loan) is a credit that is due and has experienced significant or even unrecoverable arrears payments. Credit is considered an NPL if the borrower has failed to pay interest or principal for the loan during the period specified in the credit agreement. The late payment rate used to classify a loan as an NPL may vary between countries and financial institutions, but there is usually a certain time limit that must be passed before a loan is categorized as an NPL (Kasmir, 2018).

NPLs can be a serious problem for banks and other financial institutions, as they can result in financial losses. Banks typically have to take action to address NPLs, such as imposing provisions for losses that may arise from defaulted loans, making recovery efforts, or in some cases, selling NPLs to third-party investors (Foos et al., 2022).

High NPL levels in a banking system can be a sign of significant credit risk and can negatively impact a bank's financial health as well as the stability of the financial system as a whole (Abraham et al., 2023; Drechsler et al., 2021). Therefore, effective credit risk management and close supervision of NPLs are essential in maintaining financial sector stability and preventing financial crises (et al., 2021; Zhuang & Wei, 2023).

According to SE BI No. 13/24/DPNP dated October 25, 2011, credit risk is the risk due to the failure of debtors and/or other parties in fulfilling obligations to the Bank. Healthy Non-Performing Loan (NPL) standards if the number of non-performing loans is not more than 5% of the total loans given to debtors. If it exceeds 5%, it will affect the health level of the Bank concerned. Then the NPL can be formulated as follows:

$$NPL = \frac{Non - performing credit}{Total Credits} \times 100\%$$



### METHOD

The research design used in this study is a quantitative descriptive research design. The purpose of this quantitative descriptive research is to explain and describe the characteristics of the variables studied (Sugiyono, 2017). This descriptive research can also help to understand and understand various aspects that affect these variables so that research can be useful as a basis for making the right decisions in conducting further research. The population of this study is state-owned banks listed on the Indonesia Stock Exchange (IDX). The research time used in this study is 2014-2022. The sample selection method used is total sampling. The independent variable in this study is Non-Performing Loan contained in the financial statements of each company and the dependent variable of company profit as measured by Return On Asset obtained from the Indonesia Stock Exchange website.

## **RESULTS AND DISCUSSION**

## **Classical Assumption Test**

a. Normality Test

The normality test is used to test whether in regression the independent and dependent variables or both are normally distributed or not. The test used to see the normality of data is the Histogram Normality Test. If the resulting significant value is >0.05, then the distribution of data is said to be normal. However, if the resulting significant value is <0.05, the data is not normally distributed. After the normality test was carried out with the Histogram Normality Test, the processing results showed that the Probability value was 0.62>0.05. This means that the data is distributed normally and can be tested further.

b. Multicollinearity Test

The Multicollinearity Test is performed if linear regression uses more than one independent variable. If there is only one independent variable, then multicollinearity is not possible, so testing is not necessary. Thus, because this study also used five independent variables, the Multicollinearity test was carried out in this study. The Multicollinearity Test aims to test whether the regression model found a correlation between independent variables. A good regression model should not have correlations between independent variables (Sugiyono, 2017).

The correlation value between independent variables is normal, where the correlation value is < 0.85, it can be concluded that the free variable is free from multicollinearity symptoms and can be used in this study.

c. Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual of one observation to another. If the variance from one observation to another is the same then it is called homokedasticity, and if the variance is different it is called heteroscedasticity (Sugiyono, 2017).

According to (Basuki, 2017), A good regression model is a regression model that qualifies the absence of heteroscedasticity.

H0: no heteroscedasticity occurs in data distribution.

H1: heteroscedasticity occurs in data distribution

The guidelines to be used in making conclusions are as follows:

- 1. If the Probability value <  $\alpha$  (5%), then H0 is rejected, which means heteroscedasticity in the distribution of data.
- 2. If the Probability value is >  $\alpha$  (5%), then H0 is accepted, which means that there



is no heteroscedasticity in the distribution of data.

Based on the processed data, it shows that the probability value of the free variable is 0.93 > 0.05, thus showing that this study does not have heteroscedasticity problems.

#### Model Selection Test

a. Chow Test

The chow test is used to determine the model to choose between the Common Effect Model (CEM) and the Fixed Effect Model (FEM). From the regression results based on the Fixed Effect Model (FEM) using Eviews-12 get the following results. For the selection between CEM or FEM models, when viewed from the Cross-section Chi-square > 0.05, the model chosen is the common effect model, if the Cross-section Chi-square < 0.05 then the fixed effect model is chosen.

From the processed data, the value of Cross-Section Chi-square 0.00 < 0.05. So it can be concluded that H0 is rejected and H1 is accepted. So it can be stated that the fixed effect model is better used than the common effect model.

b. Hausman test

The hausman test is a statistical test to choose between the Random Effect Model (REM) and the Fixed Effect Model (FEM). Based on the results of the Random Effect Model (REM) regression results from processing using the Eviews-12 hausman test, the random Prob Cross-section value is 0.00 < 0.05. then it can be determined that H0 is rejected and H1 is accepted. So that the Fixed Effect model is better used than the Random Effect model. The model selected in this study uses the Fixed Effect Model.

#### **Linear Regression Analysis**

The regression model or equation used in this study is:

 $Y = 6.113467 - 1.343041 X + \varepsilon$ 

Information:

Y : Dependent variable (ROA)

X : Independent variable (NPL)

Q: Error

The constant value is 6.113467 which states that if the NPL is given a value of zero or ignored, then the ROA variable will produce a value of 6.113467 units. The NPL regression coefficient of 1.343041, means that if the NPL variable increases by one unit, it will result in a decrease in the value of ROA as 1.343041.

The partial regression coefficient test (t-test) aims to test the effect of one independent variable on the dependent variable. The results of the t-test can be seen in the table below:

Dependent Variable: Y

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.113467	1.204127	5.077093	0.0014
NPL	-1.343041	0.426625	-3.148058	0.0162

Based on the results obtained from this partial test (t-test), it shows that the NPL variable has a significant value of 0.016. Where the significance value is less than 0.05, it can thus be concluded that NPL has a significant negative effect on the company's profit as measured by the Return On Assets ratio. **Discussion** 



A stable and low level of Non-Performing Loans (NPLs) in the bank's credit portfolio is a key factor in supporting the bank's stability and profitability. NPLs are very important indicators in assessing the asset quality of banks and the level of credit risk faced by financial institutions. When the NPL level is low, it indicates that most borrowers repay their loans according to a predetermined repayment schedule. In this case, the bank can generate stable interest income and can avoid additional costs associated with handling NPLs.

However, when NPL levels increase, this can result in a negative impact on bank profits. One of the main impacts is the obligation of banks to make provisions or loss reserves to cope with potential losses that may arise from NPLs. This provision reduces the net profit that can be recorded by the bank. In addition, high NPLs can also reduce interest income as most loans in this category may default on expected interest payments.

In this regard, effective credit risk management and strong preventive measures to reduce NPL levels are essential for banks. This includes careful monitoring of the quality of the credit portfolio, careful selection of borrowers, as well as the development of efficient recovery strategies. By managing credit risk well, banks can maintain stable financial performance and sustainable profitability.

#### CONCLUSION

Based on the results of research data analysis and the discussion that has been described, it can be concluded that Non-Performing Loans (NPL) have a significant negative effect on banking profits in Indonesia in 2014-2022. When the company's *Non-Performing Loan* ratio increases, the profit of banking companies will also decrease.

#### REFERENCES

- Abraham, R., Bhimavarapu, V. M., Tao, Z., & Rastogi, S. (2023). The Influence of Cash Ownership on Financial Performance: An Examination of Disruptors and Acquirers. *Journal of Risk and Financial Management*, *16*(3), 197. https://doi.org/10.3390/jrfm16030197
- Akhter, N. (2023). Determinants of commercial bank's non-performing loans in Bangladesh: An empirical evidence. *Cogent Economics and Finance*, *11*(1). https://doi.org/10.1080/23322039.2023.2194128
- Almaqtari, F. A., Al-Homaidi, E. A., Tabash, M. I., & Farhan, N. H. (2019). The determinants of profitability of Indian commercial banks: A panel data approach. *International Journal of Finance and Economics*, 24(1), 168–185. https://doi.org/10.1002/ijfe.1655
- Amrani, O., & Najab, A. (2023). The Impact of Multi-Layer Corporate Governance on Banks' Performance under the GFC and the COVID-19: A Cross-Country Panel Analysis Approach. *Journal of Risk and Financial Management*, 16(1). https://doi.org/10.3390/jrfm16010015
- Ananda, R. F. (2020). Pengaruh Capital Adequacy Ratio Dan Non Performing Financing Terhadap Profitabilitas Bank Umum Syariah Di Indonesia. *At-Tawassuth: Jurnal Ekonomi Islam, 5*(2), 423–442.
- Anugrah, T., & Yatna, C. N. (2020). Pengaruh Non Performing Loan, Loan To Deposit Ratio, Net Interest Margin, Biaya Operasional Pendapatan Operasional Dan Capital Adequacy Ratio Terhadap Profitabilitas Bank Umum Konvensional Buku 4 Periode 2012-2016. *Perbanas Review*, 4(1).
- Basuki, A. T. (2017). ANALISIS REGRESI DALAM PENELITIAN EKONOMI DAN



BISNIS.

- de Jonghe, O., Dewachter, H., Mulier, K., Ongena, S., & Schepens, G. (2020). Some borrowers are more equal than others: Bank funding shocks and credit reallocation. *Review of Finance*, *24*(1), 1–3. https://doi.org/10.1093/rof/rfy040
- Drechsler, I., Savov, A., & Schnabl, P. (2021). Banking on Deposits: Maturity Transformation without Interest Rate Risk. *Journal of Finance*, *76*(3), 1091–1143. https://doi.org/10.1111/jofi.13013
- Duong, K. D., Tran, P. M. D., Nguyen, P. Y. N., & Pham, H. (2023). How do funding diversity and non-performing loans affect bank performance in different economic cycles? *Cogent Business and Management*, 10(2). https://doi.org/10.1080/23311975.2023.2215076
- Fazriani, A. D., & Mais, R. G. (2019). Pengaruh Pembiayaan Mudharabah, Musyarakah, dan Murabahah terhadap Return On Asset melalui Non Performing Financing sebagai Variabel Intervening (pada Bank Umum Syariah yang Terdaftar diotoritas Jasa Keuangan). Jurnal Akuntansi Dan Manajemen, 16(01), 1–34.
- Foos, D., Lütkebohmert, E., Markovych, M., & Pliszka, K. (2022). Euro area banks' interest rate risk exposure to level, slope and curvature swings in the yield curve. *European Financial Management*, 28(4), 883–925. https://doi.org/10.1111/eufm.12377
- Gashi, A., Tafa, S., & Bajrami, R. (2022). The Impact of Macroeconomic Factors on Non-performing Loans in the Western Balkans. *Emerging Science Journal*, 6(5), 1032–1045. https://doi.org/10.28991/ESJ-2022-06-05-08
- Ha, D., & Nguyen, Y. (2023). Institutional quality's influence on financial inclusion' impact on bank stability. *Cogent Economics and Finance*, *11*(1). https://doi.org/10.1080/23322039.2023.2190212
- Handoyo, S., Wicaksono, A. P., Hardinto, W., & Fauzia, D. (2023). an Empirical Study on Regional Government-Owned Bank and Local Government Fund in Indonesia. *International Journal of Professional Business Review*, 8(3), 1–20. https://doi.org/10.26668/businessreview/2023.v8i3.660
- Izzah, R. N., Kosim, A. M., & Gustiawati, S. (2019). Pengaruh Non Performing Financing Dan Capital Adequacy Ratio Terhadap Profitabilitas. *Al Maal: Journal* of Islamic Economics and Banking, 1(1), 18–36.
- Kanapickienė, R., Keliuotytė-Staniulėnienė, G., Teresienė, D., Špicas, R., & Neifaltas, A. (2022). Macroeconomic Determinants of Credit Risk: Evidence on the Impact on Consumer Credit in Central and Eastern European Countries. *Sustainability (Switzerland)*, *14*(20), 1–62. https://doi.org/10.3390/su142013219
- Kasmir, S. E. (2018). Bank dan lembaga keuangan lainnya edisi revisi.
- Korri, N. T. L., & Baskara, I. G. K. (2019). *Pengaruh capital adequacy ratio, non performing Loan, bopo, dan loan to deposit ratio terhadap profitabilitas*. Udayana University.
- Kovalenko, V., Slatvinska, M., Sheludko, S., Makukha, S., & Valihura, V. (2023). the Monetary Component in Ensuring the Financial Security of the State. *Financial* and Credit Activity Problems of Theory and Practice, 1(48), 8–22. https://doi.org/10.55643/fcaptp.1.48.2023.3972
- Kyei, C. B., Asafo-Adjei, E., Owusu Junior, P., Adam, A. M., Idun, A. A. A., & Boateng, J. K. G. A. (2023). Nexus between commodities and banking sector financial soundness: The role of general macroeconomic setting in Ghana. *Cogent Economics and Finance*, *11*(1). https://doi.org/10.1080/23322039.2023.2173871
  Malik, A. (2020). Depresent Leon. To Depart Ratio (LDD). Technology.
- Malik, A. (2020). Pengaruh Loan To Deposit Ratio (LDR) Terhadap Profitabilitas



Dengan Non Performing Loan (NPL) Sebagai Variabel Intervening Pada Subsektor Perbankan. *Sains Manajemen: Jurnal Manajemen Unsera*, 6(1), 13–22.

- Marouli, A. Z., Giannini, E. N., & Caloghirou, Y. D. (2023). A Non-Performing Loans (NPLs) Portfolio Pricing Model Based on Recovery Performance: The Case of Greece. *Risks*, 11(5). https://doi.org/10.3390/risks11050096
- Nerantzidis, M., Koutoupis, A., Tzeremes, P., Drogalas, G., & Mitskinis, D. (2023). the Effects of Covid-19 on Firms' Liquidity: Evidence From the Athens Stock Exchange. *Journal of Business Economics and Management*, *24*(1), 155–176. https://doi.org/10.3846/jbem.2023.18637
- O. Okey-Nwala, P., I. Kenn-Ndubuisi, J., & I. Wachukwu, P. (2021). Credit Risk Management and the Performance of Nigerian Deposit Money Banks. BOHR International Journal of Finance and Market Research, 1(1), 92–95. https://doi.org/10.54646/bijfmr.015
- Oyetade, D., Obalade, A. A., & Muzindutsi, P. F. (2022). Changes in Basel Capital Requirements and Lending Ability of African Commercial Banks. *Journal of Central Banking Theory and Practice*, *11*(3), 179–201. https://doi.org/10.2478/jcbtp-2022-0029
- Özen, E., Hodžić, S., & Yildirim, A. E. (2022). The Linkage between Fiscal Policy and Non-Performing Household Loans in Turkey. *South East European Journal of Economics and Business*, *17*(2), 113–124. https://doi.org/10.2478/jeb-2022-0018
- Safitri, A. (2019). Pengaruh Pembiayaan Murabahah, Mudharabah Dan Musyarakah Terhadap Profitabilitas Dengan Non Performing Financing (NPF) Sebagai Variabel Moderasi Pada Bank Umum Syariah Dan Bank Pembiayaan Rakyat Syariah Di Indonesia (Tahun 2013-2017). IAIN SALATIGA.
- Sari, L., Mary, H., Elfiswandi, E., Zefriyenni, Z., & Lusiana, L. (2021). Kinerja Perusahaan Dan Bi Rate Terhadap Return Saham Bank Bumn. *Jurnal Ekonomi Manajemen Sistem Informasi*, 2(4), 544–555.
- Sari, L., Nurfazira, N., & Septiano, R. (2021). Pengaruh Non Performing Loan, Suku Bunga Kredit, Dan Modal Bank Terhadap Penyaluran Kredit Pada Perusahaan Perbankan LQ 45. *Jurnal Ekonomi Manajemen Sistem Informasi*, *2*(6), 702–713.
- Sari, L., Rahmadani, A., & Septiano, R. (2023). *Pengaruh Current Ratio Dan Return* On Asset Terhadap Harga Saham Perusahaan Manufaktur.
- Sari, L., Tanno, A., & Putri, A. (2020). Peran NPL Terhadap Hubungan Antara LDR dan Kinerja Perusahaan (Study Empiris Pada Bank BUMN yang Terdaftar di BEI). *Jurnal Ilmiah Administrasi Bisnis Dan Inovasi, 3*(2), 133.
- Sari, S., Ajija, S. R., Wasiaturrahma, W., & Ahmad, R. A. R. (2022). The Efficiency of Indonesian Commercial Banks: Does the Banking Industry Competition Matter? *Sustainability (Switzerland)*, 14(17), 1–16. https://doi.org/10.3390/su141710995
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. CV. Alfabeta.
- Suprianto, E., Setiawan, H., & Rusdi, D. (2020). Pengaruh Non Performing Financing (NPF) Terhadap Profitabilitas Bank Syariah di Indonesia. *Wahana Riset Akuntansi*, 8(2), 140–146.
- Yusuf, M., Sari, L., Septiano, R., Nuryati, S., Lestari, I. D., Arief, Z., Hernawan, M. A., Nurhayati, S., & Azizah, K. (2022). FINANCIAL RATIO MODEL AND APPLICATION OF GOOD CORPORATE GOVERNANCE TO NPL WITH INFLATION AS A MODERATE VARIABLE. *Journal of Management Information & Decision Sciences*, 25.
- Zhuang, Y., & Wei, H. (2023). Early warning model and prevention of regional financial risk integrated into legal system. *PLoS ONE*, *18*(6 June), 1–19.



https://doi.org/10.1371/journal.pone.0286685