AJEMB
AMERICAN JOURNAL OF ECONOMIC AND MANAGEMENT BUSINESS

American Journal of Economic and Management Business
p-ISSN: XXXX-XXXX
e-ISSN: 2835-5199
Vol. 3 No. 7 July 2024

The Effect of Competition and Bank Size on Bank Stability in ASEAN-5 Countries

Maudy[1*], Isni Andriana[2], Mu'izzuddin[3], Marlina Widiyanti[4]
Sriwijaya University, Palembang, South Sumatera, Indonesia[1,2,3,4]
Email: maudiody2013@gmail.com[1*], Isniandriana@unsri.ac.id[2], muizzudin@unsri.ac.id[3], marlinawidiyanti@fe.unsri.ac.id[4]

Abstract

This study aims to examine and analyze the influence of competition and bank size on bank stability in ASEAN-5 countries. Utilizing a descriptive quantitative approach with panel data estimation, this research employs archival data analysis techniques. The data were sourced from Moody's Analytics Bank Focus, and the sample was selected using purposive sampling, resulting in 133 commercial banks from ASEAN-5 countries for the period 2013-2023.The findings reveal that competition, as measured by the Lerner index, has a positive and significant effect on bank stability, both when stability is measured by the z-score and by Non-Performing Loans (NPLs). Conversely, bank size has a negative and significant effect on bank stability, again both in terms of z-score and NPLs. These insights are valuable for banking institutions, debtors, customers, and investors, guiding their capital investments in the banking sector. Future research should consider additional factors such as efficiency, GDP, and interest rates on bank stability, and expand the scope of the study to include a broader range of observations.

Keywords: Z-SCORE; Non-Performing Loan; Lerner; Size.

This article is licensed under a Creative Commons Attribution-ShareAlike 4.0 International

INTRODUCTION

The global economic crisis that occurred in 2008 was an event that taught lessons about the importance of reducing systemic risk and maintaining financial system stability (Fauziah et al., 2020) and ((Rahmah, 2018). Significant changes to the legislative and supervisory framework in the banking industry of ASEAN countries are caused by the crisis (Noman et al., 2017) and (Kim et al., 2020). There is a complicated relationship between financial stability and macroeconomic stability. Therefore, financial stability analysis cannot be ignored (Amanda, 2023). Stability in the financial system can prevent financial crises and play an important role in boosting economic growth (Sri Setiawati, 2020) (Ahi & Laidroo, 2019; Ahmad et al., 2022; Shahriar et al., 2023). (Phan et al., 2019) and (Wai Peng Wong, 2016) There are several specific reasons for the rapid development of the domestic banking industry

in ASEAN, including ASEAN is the fourth trading region that causes fierce competition, the existence of the ASEAN Economic Community (AEC) and an integrated banking sector.

The bank overcomes various obstacles and threats to its stability. Competition and bank size are among the determinants of stability in several studies related to banking stability (Amanda, 2023). According to (Phan et al., 2019); (Hertina et al., 2019; T. P. T. Nguyen & Nghiem, 2020). Competition is a state in which various parties compete with each other to achieve a certain goal. Banking institutions are accelerating the consolidation process to maintain their market power in light of increasing competition, which raises concerns about the number of large banks and the level of concentration (Dutta & Saha, 2021).

Furthermore, regarding the size of the bank, it is theoretically stated that the larger the bank's size, the better its risk management capabilities, infrastructure and human resources will be, which will have a positive impact on its stability (Ahmad Fatoni, 2022). The following is the ranking of the top 5 banks in the ASEAN-5 region.

Table 1. Size of the 5th Largest Banks in ASEAN-By Total Assets

It	Bank Name	Country	Total Assets US$
1	DBS Bank	Singapore	491,9
2	OCBC Bank	Singapore	394,5
3	United Overseas Bank	Singapore	326,7
4	Malayan Banking	Malaysia	213
5	CIMB Bank	Malaysia	149,7

Source: Forbes, 2021

Table 1. shows the ranking of the largest banks in ASEAN-5 by total assets in 2021. The top 5 largest ASEAN-5 banks are occupied by Singapore and Malaysian banks. Singaporean banks still dominate ASEAN banking by occupying the top three rankings, namely DBS, OCBC, and UOB. It is followed by Malaysian banks at 4 to 5.

The problem of limiting the size of banks has become increasingly prominent since the global financial crisis of 2007-2008. This is because of the abundance of evidence that shows that the big banks were responsible for the crisis that caused significant damage to many economies around the world (Adusei, 2019).

Some studies show different results (Kanas et al., 2019). (Lee et al., 2023); (Ibrahim et al., 2019) stated that bank competition has a negative and significant effect on bank stability. The bank's level of stability supports the view that higher competition leads to instability and vice versa. This is also in line with the research conducted by (Arping, 2019) and (Leroy & Lucotte, 2019), which states that competition has a negative effect on the stability of the banking industry. However, it is different from the research conducted by (Pessarossi et al., 2020) and (Nasim et al., 2023) (Sanderson et al., 2019) have a positive and significant effect on bank stability, this result, in line with research conducted by (Shamshur & Weill, 2019) and (Huizhi & Xianghua, 2023) said that competition affects the stability of banks because banks will continue to innovate to maintain their market strength (Sanderson et al., 2019)and (Takahashi & Vasconcelos, 2024).

Based on existing research related to the influence of competition and bank size on stability, we have not reached a consistent conclusion, possibly due to differences in region and sample period. Therefore, the researcher is interested in continuing and testing existing research and will specifically analyze the mechanism of the influence of competition and bank size on bank stability using data from the ASEAN-5 banking industry for the 2013-2023 period. Therefore, this study was compiled with the title "The Influence of Competition and Bank Size on Bank Stability in ASEAN-5 Countries".

RESEARCH METHODS

This study focuses on the variables of competition and bank size on bank stability. Competition is measured by the lerner index, the size of the bank is measured from the natural logarithm of total assets and stability is measured by Z-Score and NPL. The object of this study is to observe banks in ASEAN-5 countries for the period 2013 to 2023. Data collection techniques through archival data analysis. This study uses a descriptive quantitative approach. The data source in this study is a dataset obtained from Moody's Analytics Bank Focus. The sampling technique uses the purposive sampling method consisting of 133 commercial banks in ASEAN-5. Panel data analysis techniques were used in this research. The calculation of the panel data model in this study uses approaches such as the Fixed Effect Model (FEM), Random Effect Model (REM) and Generalized Least Squares (GLS) (Adusei, 2019; Ijaz et al., 2020; Q. K. Nguyen & Dang, 2022); (Anggraini et al., 2023; Muizzuddin et al., 2021). The regression model of panel data in this study is as follows:

$$\text{STABit} = ++ \boldsymbol{\alpha\beta 1 ILit\beta 2 SIZEit} + \boldsymbol{\varepsilon it}$$

$\beta 1 ILit$ shows the competition measured by the value of the bank lerrner index at bank s at time t, to measure the size of the bank proxied by the size of bank s at time t, and Ɛit is the standard or residual error. $\beta 2 Sizeit$

Table 2. Variable Operational Definition

Variable	Definition	Formula
Dependent Variables		
Z-score	Financial indicators of a banking health institution, which are calculated as the sum of return on assets (ROA) and the ratio of capital to assets, then divided by the standard deviation of ROA (Erward, 1968)	$\text{ZSCORE}_{it} = \frac{ROA_{it} + EQTA_{it}}{\sigma ROA_{it}}$
NPL	The ratio is used to measure the ability of banks to protect the risk of default of credit repayment by debtors (Kasmir, 2016)	$NPL = \frac{\text{Kredit Bermasalah}}{\text{Total Kredit}} \times 100\%$
Independent Variables		

Variable	Definition	Formula
Lerner Index	Non-structural measures to estimate the level of banking competition (Weill, 2011).	$\text{Lerner}_{it} = \frac{Pst - MCst}{Pst}$
Bank Size	The bank's ability to distribute funds is seen in terms of assets owned (World Bank, 2020)	$Ln\ (Total\ Asset\ Bank)$

RESULT AND DISCUSSION

Descriptive Statistics

Table 3. Descriptive statistics

Variable	Obs	Average	Std. Dev.	Min.	Max.
Dependent Variables					
Z-SCORE	10,58	2,232	.487	-0,06	4,007
NPL	10,58	3,445	5,118	0	68,841
Independent Variables					
LERNER	10,58	0,291	0,178	-.38	0,616
SIZE	10,58	68,217	269,117	15,843	8,756.463

Source: STATA-17 Data Processing Results

Table 3 presents descriptive statistics, including the number of observations, average values, standard deviations, minimums and maximums of all research variables. The competition that was proxied with lerner showed a value of 0.291, Size showed an average value of 68.217, while bank stability measured by z-score and npl showed a value of 2.232 and 3.445, respectively. The higher the variable value indicates the lower a bank faces Financial distress (Muizzuddin et al., 2021). However, a minimum value of -0.06 indicates that some banks are vulnerable to Financial distress (Risfandy et al., 2022). The average, minimum and maximum values of each variable in each country can be explained in (table 4, table 5 and table 6).

Table 4. The average value of variables in each Country

Country	Z-SCORE	NPL	LERNER	SIZE
Indonesian	2,292	4,046	0,234	14,393
Malaysia	2,151	2,249	0,350	16,072
Philippines	2,106	3,844	0,323	15,417
Singapore	1,528	0, 678	0,405	17,79
Thailand	2,299	2,869	0,387	16,106

Source: STATA-17 Data Processing Results

Table 5. Maximum value of variables in each Country

Country	Z-SCORE	NPL	LERNER	SIZE
Indonesian	4,049	68,731	0,616	18,595
Malaysia	4,007	34,89	0,616	18,679
Philippines	3,145	31,78	0,615	18,156
Singapore	2,051	1,66	0,616	19,618
Thailand	4,092	25,525	0,616	18,559

Source: STATA-17 Data Processing Results

Table 6. Variable minimum values in each Country

Country	Z-SCORE	NPL	LERNER	SIZE
Indonesian	-0,008	0	-0,380	9,831
Malaysia	1,287	0,003	-0,380	11,506
Philippines	0,643	0,256	-0,140	12,052
Singapore	1,13	0,022	0,124	16,071
Thailand	1,298	0,009	-0,380	12,656

Source: STATA-17 Data Processing Results

Multicollinearity Test

Table 7. Paired correlation matrix

Variable	(1)	(2)	(3)	(4)
(1) Z-SCORE	1,000			
(2) NPL	0,058	1,000		
(3) LERNER	-0,053	-0,085*	1,000	
(4) SIZE	-0,480*	-0,160*	0,607*	1.000

Source: STATA-17 Data Processing Results

The multicoloniality test aims to test whether there is a relationship or correlation between dependent variables. By pairwise correlation matrix, If the coefficient between independent variables is more than >0.8, it means that there is a multicollinearity problem in the model (Adam et al., 2023). Table 4.5 shows that there is no multicollinearity problem between variables in this study, and diagnostic tests show that there is no multicollinearity issue.

Panel Data Regression

Table 8. Bank Stability Baseline Regression Results (Z-SCORE)

	Dependent Variable = Z-SCORE			
	OLS	FEM	BRAKE	GLS
Independent Variables				
LERNER	1,0599***	0,4385***	0,5640***	0,5597***
	(0,0794)	(0,1754)	(0,1762)	(0,0400)
Control Variables				
SIZE	-0,1931***	-0,0449***	-0,1218***	-0,1637***
	(0,0077)	(0,0603)	(0,0291)	(0,0057)
Constant	4,8875***	2,8112***	3,9498***	4,5447***
	(0,1054)	(0,9070)	(0,4344)	(0,0,0914)
Number of observations	1,369	1,369	1,369	1,369
Number of banks	133	133	133	133
R-squared	0,3174	0,0265	0,3141	
Hausman Test		0,0000		
Heteroscedasticity Test		0,0000		
Autocorrelation Test		0,0000		

Source: STATA-17 Data Processing Results

Table 8 presents the results of the panel data estimation that tests the influence of competition proxied with lerner and bank size measured by size on stability proxied by z-score. Based on the value of the hausman test, it shows a result of 0.0000<0.05 so it can be concluded that the FEM model is the right model in this study. However, there are problems of heteroscedasticity and autocorrelation in the regression of the FEM model, therefore, the Generalized Least Squared (GLS) model is used to correct errors in the analysis (Erfan et al., 2023). The regression results of the panel data are still used as a comparison between four estimation models, namely OLS, FEM, REM, and GLS.

Table 9. Bank Stability Base Regression (NPL) Results

	Dependent Variable = Z-SCORE			
	OLS	FEM	BRAKE	GLS
Independent Variables				
LERNER	0,5942***	0,5769	0,2698	0,3400***
	(1,0585)	(0,9774)	(1,3072)	(0,2358)
Control Variables				
SIZE	-0,4735***	0,3700***	-0,3508***	-0,3096***
	(0,1014)	(0,6312)	(0,1636)	(0,0416)
Constant	10.4414***	-1,9925***	8,6213***	7,7361***
	(1,3745)	(9,1067)	(2,3561)	(0,6521)
Number of observations	1,140	1,140	1,140	1,140
Number of banks	133	133	133	133
R-squared	0,0260	0,0010	0,2590	

Hausman Test	0,0822
Heteroscedasticity Test	0,0000
Autocorrelation Test	0,0000

Source: STATA-17 Data Processing Results

Table 9 presents the results of the panel data estimation that tests the effect of competition proxied with lerner and bank size measured by size on stability proxied by z-score. The Hausman test compares the two models, between the random effect model and the Fixed Effect Model and showing the results that Crosssection random has a value of 0.0822 > 0.05, so the test results Hausman Choosing a model BRAKE than FEM. However, there are problems of heteroscedasticity and autocorrelation in the regression of the FEM model, so the Generalized Least Squared (GLS) model is an alternative to overcome the problem of heteroscedasticity assumption and autocorrelation (Martaningtyas et al., 2024) and (Kosmaryati et al., 2019).

Discussion

Competition for bank stability

Table 8 shows that competition has a positive and significant effect on stability as measured by z-score. The competition variable showed a significance level of 0.000<0.01 and a coefficient of 0.5597 on bank stability (z-score). This means that if the level of competition increases, it will have an effect on increasing stability (z-score) by 56%. Furthermore, in Table 9, the competition also has a positive and significant effect on stability as measured by NPLs, with a competition significance level (learner) of 0.149>0.01 and a coefficient of 0.3400*** on bank stability (NPL). This means that if the increase in competition increases, it will have an effect on increasing stability (NPL) by 34%. The results show that the increase in market strength supports banking stability in ASEAN-5, which means that banks have a small risk of bankruptcy and high stability of bank companies (Violeta Ketaren & Mulyo Haryanto, 2020). This is supported by the efficiency theory put forward by Drucker (1974), who said that all activities carried out by a company must be efficient in order to obtain maximum output from the inputs it has related to this,This research is in line with previous research conducted by (Sanderson et al., 2019), (Gumanica, 2022) and (Sanderson et al., 2019) who said that competition has a positive effect on the stability of banks.

The size of the bank against the stability of the bank

Table 8 shows that bank size has a negative and significant effect on stability as measured by z-score. The bank size variable showed a significance level of 0.000<0.01 and a coefficient of -0.1637*** to bank stability (z-score). This means that if the bank size level increases by 1%, it will have an effect on a decrease in stability (z-score) of 16%. Furthermore, in Table 9, bank size also has a negative and significant effect on stability as measured by NPLs, with a significance level of 0.00<0.01 and a coefficient of -0.3096*** to bank stability (NPL). This means that every 1% increase in bank size will reduce the bank's stability level by 31%. The results show that the larger the size of the bank, the more risky or unstable the bank will be. These results are in line with research (Sanjaya and Badjuri 2022) and (Shahriar, Mehzabin, and Azad 2023) who said that the size of the bank has a negative and significant effect on the stability of the bank.

CONCLUSION

This study provides information on the relationship between competition and bank size to banking stability, especially in banking companies in ASEAN-5 countries. The results of the study with the generalized least squared (GLS) model show that competition measured by learner has a positive and significant effect on stability measured by z-score and NPL. However, bank size has a negative and significant effect on stability, as measured by z-score and NPL. The findings suggest that there is more diversity of assets and funds, which will weaken bank stability. Banks need to be careful in managing their assets. This research makes a significant contribution to the literature on bank stability. This study has several limitations. First, it only uses a sample of ASEAN-5 countries. Future research is expected to expand the research object to all countries in Southeast Asia or the Asian continent. These two studies use 2 independent variables, such as competition and bank size; further research needs to be expected to pay attention to other variables that can affect banking stability.

REFERENCES

Adam, M., Sahriman, S., & Sirajang, N. (2023). Penerapan Metode Linearized Ridge Regression pada Data yang Mengandung Multikolinearitas. 4(1), 122–129. https://doi.org/10.20956/ejsa.vi.19081

Adusei, M. (2019). The impact of bank size and funding risk on bank stability. Cogent Economics and Finance, 3(1). https://doi.org/10.1080/23322039.2015.1111489

Ahi, K., & Laidroo, L. (2019). Banking market competition in Europe—financial stability or fragility enhancing? Quantitative Finance and Economics, 3(2), 257–285. https://doi.org/10.3934/qfe.2019.2.257

Ahmad Fatoni. (2022). Pengaruh Kebijakan Restrukturisasi Pembiayaan, Ukuran Bank, Non Performing Financing, Dan Produk Domestik Bruto Terhadap Stabilitas Perbankan Syariah Di Indonesia: Bukti Empiris Di Tengah Pandemi Covid 19. Jurnal Ilmiah Ekonomi Dan Bisnis, 19(2), 140–148. https://doi.org/10.31849/jieb.v19i2.7124

Ahmad, S., Wan Ahmad, W. M., & Shaharuddin, S. S. (2022). Is excess of everything bad? Ramifications of excess liquidity on bank stability: Evidence from the dual banking system. Borsa Istanbul Review, 22, S92–S107. https://doi.org/10.1016/j.bir.2022.09.008

Amanda, C. (2023). Rural banking spatial competition and stability. Economic Analysis and Policy, 78, 492–504. https://doi.org/10.1016/j.eap.2023.03.021

Anggraini, F., Taufik, T., Muizzuddin, M., & Andriana, I. (2023). Analisis Stabilitas Perbankan Syariah dan Konvensional di Negara-Negara Kawasan MENA. Al-Kharaj : Jurnal Ekonomi, Keuangan & Bisnis Syariah, 6(2), 609–621. https://doi.org/10.47467/alkharaj.v6i2.3801

Arping, S. (2019). Competition and risk taking in banking : The charter value hypothesis revisited R. 107. https://doi.org/10.1016/j.jbankfin.2019.105609

Dutta, K. D., & Saha, M. (2021). Do competition and efficiency lead to bank stability? Evidence from Bangladesh. Future Business Journal, 7(1). https://doi.org/10.1186/s43093-020-00047-4

Erfan, R., Muizzuddin, & Taufik. (2023). Loan Growth and Bank Risk; Empirical Study on Commercial Banks in Asia-Pacific. The 8th Indonesian Finance Association International Conference, 1, 278–303.

Erward, A. I. (1968). Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy. He Journal of Finance, 22(4), 589–609.

Fauziah, Ayu, F., & Hidayatin, N. N. (2020). Inklusi Keuangan dan Stabilitas Sistem Keuangan (Bank Z-Score) di Asia Jurusan Administrasi Niaga , Politeknik Negeri Malang , Indonesia. Journal Ekonomi Dan Kewirausahaan, 14(1), 30–47.

Gumanica, M. (2022). Analisis Pengaruh Kompetisi, Capital Buffer,Inklusi Keuangan,Dan Ukuran Bank Terhadap Stabilitas Perbankandi Indonesia. Contemporary Studies in Economic, 1(2), 283–296.

Hertina, U., Astuti, W., Mahardika, P., & Saputra, A. (2019). Efficiency and Competition in Banking Industry : Case for ASEAN-5 Countries. 66(2), 141–152. https://doi.org/10.2478/saeb-2019-0011

Huizhi, L., & Xianghua, Y. (2023). Jo ur na l P re r oo f. HELIYON, e21378. https://doi.org/10.1016/j.heliyon.2023.e21378

Ibrahim, M. H., Salim, K., Abojeib, M., & Wee, L. (2019). Structural changes , competition and bank stability in Malaysia ' s dual banking system. Economic Systems, 43(1), 111–129. https://doi.org/10.1016/j.ecosys.2018.09.001

Ijaz, S., Hassan, A., Tarazi, A., & Fraz, A. (2020). Linking bank competition, financial stability, and economic growth. Journal of Business Economics and Management, 21(1), 200–221. https://doi.org/10.3846/jbem.2020.11761

Kanas, A., Hassan Al-Tamimi, H. A., Albaity, M., & Mallek, R. S. (2019). Bank competition, stability, and intervention quality. International Journal of Finance and Economics, 24(1), 568–587. https://doi.org/10.1002/ijfe.1680

Kasmir. (2016). Analisis Laporan Keuangan (1st ed.). Raja Grafindo Persada.

Kim, H., Batten, J. A., & Ryu, D. (2020). Financial crisis, bank diversification, and financial stability: OECD countries. International Review of Economics and Finance, 65(January 2019), 94–104. https://doi.org/10.1016/j.iref.2019.08.009

Kosmaryati, K., Handayani, C. A., Isfahani, R. N., & Widodo, E. (2019). Faktor-Faktor yang Mempengaruhi Kriminalitas di Indonesia Tahun 2011-2016 dengan Regresi Data Panel. Indonesian Journal of Applied Statistics, 2(1), 10. https://doi.org/10.13057/ijas.v2i1.27932

Lee, C., Ni, W., & Zhang, X. (2023). FinTech development and commercial bank efficiency in China. Global Finance Journal, 57(November 2022), 100850. https://doi.org/10.1016/j.gfj.2023.100850

Leroy, A., & Lucotte, Y. (2019). Competition and credit procyclicality in European banking R. 99, 237–251. https://doi.org/10.1016/j.jbankfin.2018.12.004

Martaningtyas, N. U., Septiyaningrum, E. A., & Maulana, Z. (2024). Dampak Pelanggaran Asumsi Klasikterhadap Kesalahan Inferensi Dalam Analisis Ekonometrika. SYNERGYJurnal Ilmiah Multidisiplin, 1(4), 255–265.

Muizzuddin, Tandelilin, E., Hanafi, M. M., & Setiyono, B. (2021). Does Institutional Quality Matter in the Relationship Between Competition and Bank Stability? Evidence From Asia. Journal of Indonesian Economy and Business, 36(3), 283–301. https://doi.org/10.22146/jieb.v36i3.1428

Nasim, A., Ullah, S., Ryong, J., & Hameed, A. (2023). Energy shocks and bank efficiency in emerging economies. Energy Economics, 126(July), 107005. https://doi.org/10.1016/j.eneco.2023.107005

Nguyen, Q. K., & Dang, V. C. (2022). The impact of risk governance structure on bank risk management effectiveness: evidence from ASEAN countries. Heliyon, 8(10), e11192. https://doi.org/10.1016/j.heliyon.2022.e11192

Nguyen, T. P. T., & Nghiem, S. O. N. H. (2020). THE EFFECTS of COMPETITION on EFFICIENCY: The VIETNAMESE BANKING INDUSTRY EXPERIENCE. Singapore Economic Review, 65(6), 1507–1536. https://doi.org/10.1142/S0217590817500114

Noman, A. H., Gee, C. S., & Isa, C. R. (2017). Does competition improve financial stability of the banking sector in ASEAN countries ? An empirical analysis. PLuS ONE, 12(5), 1–27. https://doi.org/https://doi.org/10.1371/journal.pone.0176546 M

Pessarossi, P., Thevenon, J., & Weill, L. (2020). Research in International Business and Finance Does high profitability improve stability for European banks ? ⋆. Research in International Business and Finance, 53(February), 101220. https://doi.org/10.1016/j.ribaf.2020.101220

Phan, H. T., Anwar, S., Alexander, W. R. J., & Phan, H. T. M. (2019). Competition, efficiency and stability: An empirical study of East Asian commercial banks. North American Journal of Economics and Finance, 50(October 2018), 100990. https://doi.org/10.1016/j.najef.2019.100990

Rahmah, L. P. (2018). Analisis Hubungan Independensi Bank Sentral dan Variabel Makroekonomi terhadap Stabilitas Sistem Keuangan di ASEAN. Jurnal Ilmiah, 6(1), 1–13.

Risfandy, T., Tarazi, A., & Trinugroho, I. (2022). Competition in dual markets: Implications for banking system stability. Global Finance Journal, 52(December 2019), 100579. https://doi.org/10.1016/j.gfj.2020.100579

Sanderson, A., Roux, P. Le, & Mutandwa, L. (2019). Competition and bank stability. Journal of Financial Intermediation, 35(3), 57–69. https://doi.org/10.1016/j.jfi.2017.06.001

Sanjaya, S. A. K., & Badjuri, A. (2022). PENGARUH UKURAN BANK, KREDIT, KREDIT BERMASALAH, MODAL DAN PRODUK DOMESTIK BRUTO TERHADAP PENGAMBILAN RISIKO BANK. Jurnal Ilmiah MEA (Manajemen, Ekonomi, Dan Akuntansi), 6(1), 595.

Shahriar, A., Mehzabin, S., & Azad, M. A. K. (2023). Diversification and bank stability in the MENA region. Social Sciences and Humanities Open, 8(1), 100520. https://doi.org/10.1016/j.ssaho.2023.100520

Shamshur, A., & Weill, L. (2019). Does bank efficiency influence the cost of credit ? R. Journal of Banking and Finance, 105, 62–73. https://doi.org/10.1016/j.jbankfin.2019.05.002

Sri Setiawati, R. I. (2020). Analisis Pengaruh Faktor-Faktor Fundamental Kinerja Bank Dan Makro Ekonomi Terhadap Stabilitas Perbankan Di Indonesia. Jurnal Ilmiah Bisnis Dan Ekonomi Asia, 14(2), 123–132. https://doi.org/10.32812/jibeka.v14i2.194

Takahashi, L., & Vasconcelos, M. R. (2024). Bank efficiency and undesirable output : An analysis of non-performing loans in the Brazilian banking sector. 59(November 2023), 1–10. https://doi.org/10.1016/j.frl.2023.104651

Violeta Ketaren, E., & Mulyo Haryanto, A. (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.

Wai Peng Wong, Q. D. (2016). Efficiency analysis of banks in ASEAN countries. Benchmarking: An International Journal, 23(7), 1798–1817. https://doi.org/https://doi.org/10.1108/BIJ-11-2013-0102

Weill, L. (2011). Do Islamic banks have greater market power? Comparative Economic Studies, 53(2), 291–306. https://doi.org/10.1057/ces.2011.1

World Bank. (2020). Financial Stability. ttps://www.worldbank.org/en/publication/gfdr/gfdr%022016/background/financial-stability

Copyright holders:
Maudy, Isni Andriana, Mu'izzuddin, Marlina Widiyanti (2024)
First publication right:
AJEMB – American Journal of Economic and Management Business