

Original Research Article

FIRM VALUE, ECONOMIC SHOCK, AND PITFALLS OF APPROACH ANALYSIS: THE CASE OF INDONESIAN STATE-OWNED BANK

ABSTRACT

Economic shocks are believed to have a major impact on economic stability. The purpose of this study was to determine and analyze the effect of liquidity, leverage, profitability and the Covid-19 pandemic on the firm value of state-owned banks listed on the Indonesia Stock Exchange (IDX). The data used is the financial statement data of state-owned banks listed on IDX for the 2011-2021 period. The population of this study are state-owned bank companies listed on the Indonesia Stock Exchange. Sampling in this study was carried out using purposive sampling method. Based on predetermined criteria, 4 samples and 44 data were obtained. The data analysis used in this research are Multiple Linear Regression Analysis and Data Panel. Then at the end of analysis is also strengthened by Structural Break Test. The results from Data Panel showed that liquidity has a negative and significant effect on firm value, meanwhile Leverage and Profitability has insignificant effect on firm value. Data Panel and Structural Break Test also showed there is an impact the Covid-19 pandemic on firm value.

Keywords : Firm Value; Leverage; Liquidity; Pandemic Covid-19; Profitability; Structural Break

INTRODUCTION

The banking world is an industry engaged in finance and very close to people's daily lives. Banks must have stricter policies in order to have maximum impact on all of their functions, so that as financial traffic servants, banks carry out their duties based on the principle of prudence, because banks are expected not only to seek profit, but also to improve people's lives. State-Owned Enterprises in Indonesia are regulated in Law No. 19 of 2003 concerning State-Owned Enterprises. The banking industry can contribute more to the development of the country's economy, so banks must have good performance or a high level of health. Assessment of the bank's health condition can be done based on the bank's financial statements in previous periods. In Indonesia, some banks that are included in the State-Owned Bank are PT Bank Negara Indonesia (Persero) Tbk with the issuer code BBNI, PT Bank Rakyat Indonesia (Persero) Tbk with the issuer code BBRI, PT Bank Tabungan Negara (Persero) Tbk with the issuer code BBTN, and PT Bank Mandiri (Persero) Tbk with the issuer code BMRI.

Currently, the development and progress in the banking sector is very rapid, as evidenced by the large number of banks operating in Indonesia. The existence of high sophistication and complexity can trigger a risk that will result in a decrease in bank

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performance which leads to a decrease in public trust. There are several factors that affect the performance of a bank, namely external factors and internal bank factors, analysis of both internal and external factors on bank's performance should be carried out. The outcome of such analysis will help decision-makers in improving banks' performance by manipulating internal factors and by mitigating/capitalizing the influence of external factors (Fani et al., 2018). Successful firms represent a key ingredient for developing nations. Many economists consider them similar to an engine in determining their economic, social, and political development. To survive in a competitive business environment, every firm should operate in conditions of performance (Taouab & Issor 2019).

Stocks are regarded as the most common and actively traded securities in financial markets and are seen as a long-term source of funding. However, Investors tend to be risk-return focused and hence seek to mitigate the high risk associated with investing in stocks while maximizing expected returns by maintaining a preferred level of risk. Thus, conducting financial analysis about the performance of the companies they are investing in plays a vital role in realizing their investment objectives and basing their decisions accordingly (Mehrotra, 2022). In this study, the ratio of Firm Value assessment that will be used is Tobin's Q. The Tobin's q ratio is defined as the market value of a firm divided by the replacement cost of its assets. Tobin's q ratio is assumed to represent a firm's investment or growth opportunities. If Tobin's q does represent growth opportunities, there should be a positive relationship between the Tobin's q ratio and future operating performance for a firm (Fu et al., 2016).

Meanwhile, when viewed from the factors that affect firm value, one of which is liquidity. Bianchi & Bigio, (2022) his research discusses how monetary policy affects bank behavior in terms of lending and liquidity management, with real-world applications such as explaining interest rate pass-through and analyzing the 2008 financial crisis. They emphasize on liquidity frictions and interbank market dynamics shows the importance of these factors in the context of monetary policy implementation. Research conducted by (Chou et al., 2022) found that liquidity has a significant negative effect on firm value. These results differ from research (Tui et al., 2017). which states that liquidity has no effect on firm value. The next factor that affects firm value is Leverage.

Leverage is strongly cyclical and this concept relates to the structure of capital and the business model of banking. They argue that the understanding of cyclical leverage is important to financial reporting and bank management. In other words, leverage relates to the credit supply and lending in banking and their returns of banks will depend on sensitively on leverage positions (Shahchera, 2020). Research conducted by Kramaric, (2023) found that leverage has a significant positive effect on firm value. This result is different from research (Etim, 2022) which states that leverage has no effect on firm value.

In addition to Liquidity and Leverage, the growth rate of the firm's profit can be seen in the form of increased profitability, as well as measure and determine the financial performance of companies running operations, if the profitability achieved by the firm means higher stock returns higher results (Tui et al., 2017). Research conducted by Fatima & Shaik (2022) found that profitability has a significant effect on firm value. These results differ from research (Mohammed & Ani (2020). which states that profitability has no

effect on firm value. As we know at the end of 2019 the world is facing big problems. The emergence of a disease outbreak caused by the Covid-19 virus has caused almost all aspects of life to experience increasingly worrying changes. The Covid-19 pandemic has proven to have put pressure on economic and social conditions in Indonesia since the end of 2019. This economic impact has had a widespread impact across Indonesia and the banking sector with no exception. To avoid a worse impact than before, the Indonesian government immediately took aggressive steps so that the spread rate could be minimized as much as possible. (www.djkn.kemenkeu.go.id, 2022). Investors and markets are facing a high degree of uncertainty regarding both physical and financial impacts of the virus. Results show a significant increase in total risk for the stock market (Baek et al., 2020).

Based on published financial reports, state-owned banks managed to book a net profit of IDR 72,369,497,000,000 in 2021. This figure jumped 78% compared to the previous year, which only reached IDR 40,656,764,000,000. In the first year of the Covid-19 pandemic, the profits of 4 state-owned banks fell from 47.50% to only IDR 40,656,764,000,000 in 2020 from the previous year of IDR 77,448,002,000,000. Due to the imposition of restrictions on community social activities, all lines of business were paralyzed, which had an impact on banking performance (databoks.katadata.co.id, 2022). Research by Igan et al. (2023) highlighted the importance of financial stability and the need for macroprudential policies as a top priority, especially in the face of the global crisis including the COVID-19 pandemic. The results show that macroprudential policies are effective in reducing bank risk perceived by market investors during the pandemic. The results emphasize the need for careful calibration of future macroprudential regulations to prevent unintended consequences. Indonesia itself implements macroprudential policies in order to accelerate the recovery of the economic impact of the co-19 pandemic. Meanwhile, research conducted by Maria et al, (2022) shows that the COVID-19 pandemic has a negative and significant impact on bank stability in Indonesia, regardless of ownership (government or private) or size (large or small) of the bank. The findings reveal that no bank has avoided the decline in stability associated with an increase in the number of COVID-19 cases.

As a bank that dominates the banking sector in Indonesia, it will always be required to maintain its firm value. The value of the firm and the performance of State-Owned Enterprises commercial banks are very important when viewed from the strategic role it self. Conducting an analysis of State-Owned Enterprises commercial banks to determine the value of the bank's firm during shock economic period has always been something important and interesting, therefore this study will examine how the impact of an economic shock, namely Covid-19 on the value of banking in Indonesia. This study uses a sample of state-owned banks listed on the IDX during the period 2011-2021.

REVIEW LITERATUR

The agency theory is based on two behavioural assumptions. The first assumes that individuals seek to maximize their utility and the second presumes that individuals are likely to benefit from the incompleteness of contracts. Agency relationships are generally more complex and ambiguous (precisely in the sense that the agent is required to serve the interests of the principal) than contractual relations, especially when it comes to the question of ethics. If we stick to the classic version of the agency theory which states that

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the agent must always act in the interest of the principal, it is assumed that the interests of the principal are always morally acceptable, or that the agent must often act contrary to ethics in order to fulfill its "contract" in the agency relationship. These are positions that obviously do not comply with any workable model of business ethics (Zogning, 2017).

Menurut Etim, (2022) If firm value is seen as book value, firms would be looking at increase in assets, earnings per share, dividend per share and book value of equity. If firm value is considered as market value, companies would be considering increase in market price of shares, price earnings ratio and market capitalization. Thus, firm value could be understood from the standpoint of increase in both book value and market value.

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Liquidity can be explained as the ability of a firm to pay short-term obligations in a timely manner. Sufficient liquidity improves bank performance, reduces insolvency risk, and advances robustness and resiliency during intervals of stress (Sidhu et al., 2022). Leverage is a comparison between the total value of liabilities and the total value of the firm's assets. Leverage is described to see the extent to which the firm's assets are financed by debt compared to its own capital. Banks with smaller initial capitalization, higher uninsured leverage, and higher share of awake depositors are more susceptible to such runs and insolvency (Jiang et al., 2023). Bank profitability helps drive economic growth in the short run. Profitability is positively associated with greater economic growth. Considering the dynamics of bank profitability together with the impact of the short run dan the long run, it also finds a positive and significant impact of bank profitability (Klein & Weill, 2022). The growth rate of the firm's profit can be seen in the form of increased profitability, as well as measure and determine the financial performance of companies running operations (Tui et al., 2017).

RESEARCH METHODS

Sample and Research Type

The research used in this study is quantitative research. This study uses a purposive sampling method, based on predetermined criteria, 4 samples of BUMN banks in Indonesia are obtained so that this study has 44 sample data. The sample was chosen because it met all the criteria determined by the research analysis needs. This study uses secondary data from the annual reports of BUMN Bank companies for the 2011-2021 period obtained from the official website of the Indonesia Stock Exchange <https://www.idx.co.id> and the websites of each firm.

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The firm value uses the Tobin's Q measurement tool. Tobin's Q is a measuring tool that defines firm value as a form of value of tangible assets and intangible assets. Firm value is proxied by $MVE + D / \text{Total Asset}$. For the Liquidity variable in this study using the Loan to Deposit Ratio (LDR) measuring instrument. Liquidity measurement uses the Loan to Deposit Ratio, namely the amount of credit provided divided by the funds received by the bank. While the Leverage measurement in this study uses the Debt to Equity Ratio, namely total debt divided by equity. Another variable used in this study is Profitability which uses the Return on Asset (ROA) measurement tool, namely profit after tax divided by total assets. To measure the economic shock represented by Covid-19 in this study we use categorical Dummy Variables as follows: Before Covid-19 is given a value score of 0, and during Covid-19 is given a score of 1.

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Data Analysis Method

The data analysis method used in this study we did with several approaches. First we processed with Multiple Linear Regression. Then we also tried to use Panel Data Regression with Fixed Effect to get another view of the phenomenon we studied. Finally, to confirm whether the value of state-owned banks in Indonesia has indeed escaped the Covid-19 shock or not by conducting structural break testing with the Chow Test. The regression model used in this study is as follows:

$$Y_t = \alpha + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 D + e \quad \text{for Multiple Linear Regression}$$

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 D + e_{it} \quad \text{for Panel Data (LSDV)}$$

Where Y is Firm Value, β is variable Regression Coefficient, α is constant, X1 is Liquidity, X2 is Leverage, X3 is Profitability, D is Covid-19 Dummy Variable (Before = 0, During = 1), and e is error term.

RESULT AND DISCUSSION

The estimation results that the author did using Multiple Linear Regression can be seen in table 1.

Table 1. Multiple Linear Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.666893	0.084708	7.872821	0.0000
LIQUIDITY	-0.296728	0.156483	-1.896232	0.0656
LEVERAGE	-0.002496	0.004186	-0.596262	0.5545
PROFITABILITY	4.844828	1.897584	2.553155	0.0148
COVID-19 PANDEMIC	-0.024022	0.031593	-0.760381	0.4517
R-squared	0.555031	Mean dependent var		0.563244
Adjusted R-squared	0.508193	S.D. dependent var		0.064837
S.E. of regression	0.045470	Akaike info criterion		-3.234596
Sum squared resid	0.078565	Schwarz criterion		-3.029805
Log likelihood	74.54381	Hannan-Quinn criter.		-3.159076
F-statistic	11.84982	Durbin-Watson stat		2.236315
Prob(F-statistic)	0.000002			

Source: processed by researchers, 2023

The results of testing the regression equation in table 1 can be explained as follows:

$$\text{Firm Value} = 0.666893 - 0.296728X_1 - 0.002496X_2 + 4.844828X_3 - 0.024022D$$

From the model above, it can be interpreted that the value of β_1 Liquidity has a regression coefficient of -0.296728, this indicates that Liquidity has an unidirectional relationship to Firm Value, meaning that if the other independent variables are fixed and

Liquidity increases by 1 unit, the Firm Value will decrease by 0.296728. The value of β_2 Leverage has a regression coefficient of -0.002496, this also shows that if Leverage has a unidirectional relationship to the Firm Value, it means that if the other independent variables are fixed and Leverage increases by 1 unit, the Firm Value will decrease by 0.002496. The value of β_3 Profitability has a regression coefficient of 4.844828, this indicates that if Profitability increases by 1 unit, the Firm Value will increase by 4.844828. β_4 the value of the Covid-19 Pandemic has a regression coefficient of -0.024022 but is not significant at any level on the Firm Value.

Simultaneous testing of Liquidity, Leverage, Profitability, and the Covid-19 Pandemic on Firm Value is concluded to have a simultaneous effect on Firm Value where the value of prob. F (Statistic) is smaller than the 5% significance level. Adjusted R squared in this study obtained a value of 0.508193 or it can be said that 50.8% of the variation in Firm Value can be explained by the independent variables in this study, while the remaining 49.2% is influenced by other variables not included in the model. Partial testing of the effect of the Liquidity variable on Firm Value shows that Liquidity has an effect at a significance level of 10% where the Prob value. t count $0.0656 < 0.1$ with a Coefficient value of -0.296728. Leverage has no significant effect with a Prob value. t count $0.5545 > 0.05$. Profitability variable has a significant positive effect with a Prob value. t count $0.0148 < 0.05$ with a Coefficient value of 4.844828. The Covid-19 pandemic has no significant effect with a Prob. t value of $0.4517 > 0.05$ with a negative direction.

Liquidity shows no effect on Firm Value. These results prove that the first hypothesis which states that the Liquidity variable has a significant effect on Firm Value is rejected. This shows that increasing or decreasing bank liquidity has no impact on firm value. Liquidity is the firm's ability to fund operations and pay off its short-term obligations and the Loan to Deposit Ratio is a comparison of loans provided with third party funds raised by banks. Investors are interested in companies that have a good level of liquidity, so the demand for the firm's shares increases which causes an increase in firm value. A good LDR is a sign that banks manage third party funds and credit channeled to the public well and that third party funds managed by banks are not idle, or on the other hand the credit channeled is also at a reasonable amount and does not exceed the amount of third party funds managed by banks. These results are supported by previous research conducted by (Tui et al., 2017) which states that liquidity has no effect on firm value.

Leverage shows no effect on Firm Value. These results prove that the second hypothesis which states that the Leverage variable has a significant effect on Firm Value is rejected. This shows that increasing or decreasing bank leverage has no impact on firm value. Leverage is a form of using a firm's debt to finance the firm's operational activities and the Debt to Equity Ratio is a comparison between total debt and total equity owned by the firm. Under certain conditions, it can be concluded that there is no effect of leverage (DER) on Firm Value, this is because debt policy is an internal policy of the firm's management in developing its business and of course management will always try to find a low-cost source of funds that must be used, and there is a source of financing whether the high use of debt will not affect the stock price and firm value, because third party funds in the debt post cause the bank's Debt to Equity Ratio (DER) value to be high. But this condition is very reasonable for banking companies. These results are supported by

previous research conducted by (Etim et al., 2022) which states that leverage has no effect on firm value.

Profitability shows a significant effect on Firm Value. These results prove that the third hypothesis which states that the profitability variable has a significant effect on Firm Value is accepted. This shows that increasing bank profitability has an impact on firm value, increasing profitability value is followed by increasing firm value or high profitability can increase firm value and vice versa low profitability can reduce firm value. Profitability is a ratio to measure the firm's ability to generate profits by managing assets and Return on Assets is used to measure the bank's net profit obtained from the use of assets. Profitability (ROA) shows the level of net profit that can be achieved by the firm when carrying out its operations and then the profit that should be distributed to shareholders are profits after interest and taxes, so that with high profitability (ROA) it can provide added value to the firm which is reflected in its share price and the ability to generate profits. It will be responded positively by investors, one of which is reflected in an increase in stock prices. These results are supported by previous research conducted by Fatima & Shaik (2022) which states that profitability has a significant positive effect on firm value. Yudhyani et al. (2022) using Structural Equation Modeling (SEM) also found that profitability indirectly affects firm value.

The Covid-19 pandemic shows no effect on Firm Value. These results prove that the fourth hypothesis which states that the Covid-19 pandemic variable has a significant effect on Firm Value is rejected. This shows that the Covid-19 pandemic has no impact on firm value. With the Multiple Linear Regression method, although we can already see a fairly clear direction (negative), the impact of the shock cannot be stated as having an effect on firm value. We suspect that banks in Indonesia can maintain their financial performance during the Covid-19 pandemic due to the support of stimulus and policy [POJK No. 11/2020](#) issued by the Government of Indonesia together with the Financial Services Authority (OJK) which contains banks can provide credit or financing or other new provision of funds to debtors affected by the spread of Covid-19 including micro, small and medium business debtors with a maximum financing value for each debtor of IDR 10,000,000,000 (ten billion rupiah). Ministry of Finance Regulation (PMK) [NO.70 / PMK.05 / 2020](#) states to place funds in state-owned banks where the placement of state money in commercial banks is intended to accelerate national economic recovery which is part of state financial policy in the context of handling the Covid-19 pandemic. This result is supported by previous research conducted by Igan et al. (2023) which states that the Covid-19 pandemic macroprudential policy has no effect on firm value.

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A Brief Review with Panel Data Regression

In our research, we also consider using Panel data to confirm our initial findings regarding the impact of the Covid-19 shock on the firm value of state-owned banks in Indonesia during the Covid-19 pandemic. As we know, Panel data has the capacity to provide a larger amount of data, which can result in a higher degree of freedom. In addition, its ability to combine information from time series and cross section data can help overcome the problem of omitted variables. Panel estimation results of state-owned banks are presented in Table 2 using the Fixed Effect Model. Panel Data equation that we obtained:

$$\text{Firm Value} = 1.332456_{it} - 0.254388X_{1it} - 0.003580X_{2it} - 1.092542X_{3it} - 0.079576D_{it} + e_{it}$$

Regression Before Covid-19:

$$\text{Firm Value} = 1.332456 - 0.254388 - 0.003580 - 1.092542 - 0.079576$$

$$\text{Firm Value} = 1.332456 - 0.254388 - 0.003580 - 1.092542$$

Regression During Covid-19:

$$\text{Firm Value} = 1.332456 - 0.254388 - 0.003580 - 1.092542 - 0.079576 (1)$$

$$\text{Firm Value} = (1.332456 - 0.079576) - 0.254388 - 0.003580 - 1.092542$$

$$\text{Firm Value} = 1.078068 - 0.254388 - 0.003580 - 1.092542$$

Table 2. Panel Data Regression-Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.332456	0.121484	10.96815	0.0000
LIQUIDITY	-0.254388	0.102741	-2.476009	0.0181
LEVERAGE	0.003580	0.004390	0.815357	0.4202
PROFITABILITY	-1.092542	1.480320	-0.738044	0.4653
COVID-19 PANDEMIC	-0.079576	0.021295	-3.736874	0.0006
Fixed Effects (Cross)				
BBNI--C	-0.046764			
BBRI--C	0.102008			
BBTN--C	-0.081141			
BMRI--C	0.025898			
Root MSE	0.027560	R-squared	0.882320	
Mean dependent var	1.098858	Adjusted R-squared	0.859438	
S.D. dependent var	0.081269	S.E. of regression	0.030469	
Akaike info criterion	-3.981239	Sum squared resid	0.033421	
Schwarz criterion	-3.656841	Log likelihood	95.58726	
Hannan-Quinn criter.	-3.860937	F-statistic	38.55935	
Durbin-Watson stat	2.431880	Prob(F-statistic)	0.000000	

Source: processed by researchers, 2023

Panel Data Regression shows that the Covid-19 Pandemic using Dummy Variables has a negative effect on Firm Value. These results prove that the fourth hypothesis which states that the Covid-19 pandemic dummy variable has no significant effect on Firm Value using Multiple Linear Regression is different from the results shown by Panel Data Regression. It shows that the Covid-19 pandemic has a significant negative impact on firm value, and this impact is significant at the 1% level. Although banks received stimulus support with the POJK No. 11/2020 policy issued by the Government of Indonesia together with the Financial Services Authority and the Ministry of Finance Regulation (PMK) NO.70/PMK.05/2020 by placing funds in state-owned banks in the context of handling the Covid-19 pandemic, in fact the presence of Covid-19 followed by a decrease in firm value is difficult to avoid, this makes it difficult for companies to increase profits and establish appropriate risk mitigation in maintaining the quality of stock performance during the pandemic. The significance of this variable clearly indicates that the demand for shares and

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stock prices have decreased, causing the firm's value to also decline. Figure 1 is an illustration of the profitability of four state-owned banks that compactly show a downward trend during the Covid-19 pandemic.

Simultaneously, the effect of independent variables with Panel Data is concluded to be significant on Firm Value. The impact of Liquidity this time is also no different from the previous estimation where the coefficient is still negative and significant. Decreasing liquidity causes a decrease in firm value, this is due to the decline in fund utilization and the high risk of liquidity that is not in accordance with the normal threshold.

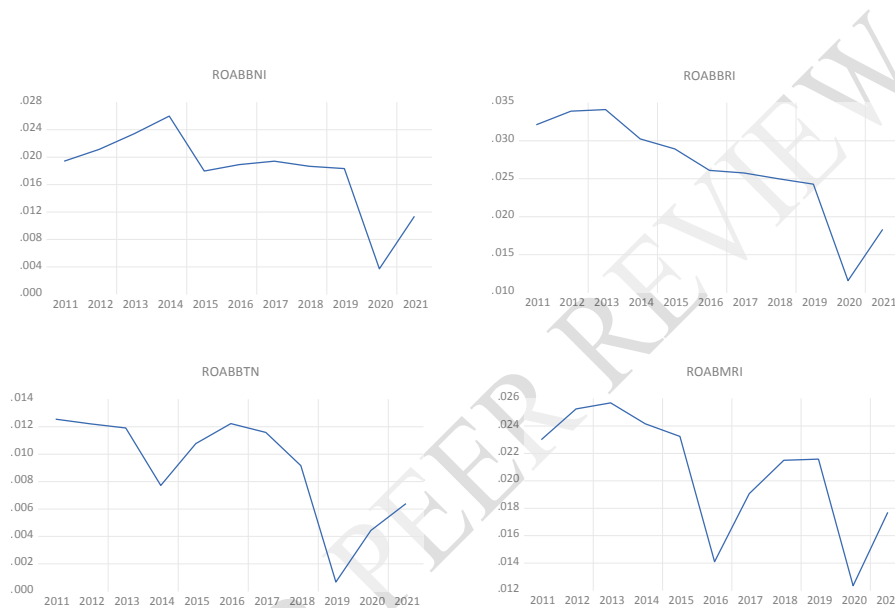


Figure 1. Profitability Chart
Source: processed by researchers, 2023

Then the impact of the Leverage variable on the panel data regression is also consistent with the previous estimate which is not significant at any level of significance. A striking change occurs in the Profitability variable which this time is stated to have a negative but insignificant impact on firm value. The decline in profitability (Figure 1) is a clear indication of why this variable is not significant in explaining Firm Value. The declining profitability experienced by state-owned bank companies because the companies (banks) are experiencing a direct impact due to low public consumption and investment due to the Covid-19 Pandemic. Quoting from the Ministry of Finance of the Republic of Indonesia, in the second quarter of 2020, the Indonesian economy contracted (negative growth) by -5.3%. Indonesia's economic contraction is quite deep but relatively better than other countries including ASEAN countries such as Singapore. The decline in national economic performance was partly due to a decline in home consumption, investment spending and realization of government spending.

Table 3. Chow Breakpoint Test

Chow Breakpoint Test: 2020Q2 for	Prob.		
	LDR	DER	ROA
BBNI	0.0000*	0.0001*	0.0421*
BBRI	0.1217	0.2252	0.2704
BBTN	0.0014*	0.8526	0.5448
BMRI	0.0000*	0.0000*	0.0003*

* Indicate significance $P < 0.05$

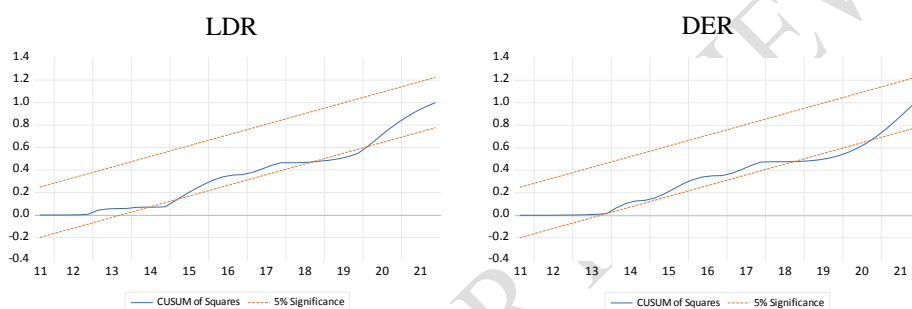


Figure 2. CUSUM of Squares Test BBNI
Source: processed by researchers, 2023

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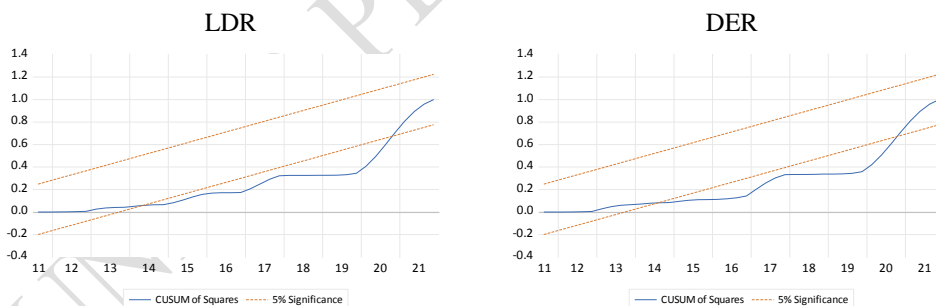


Figure 3. CUSUM of Squares Test BMRI
Source: processed by researchers, 2023

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To understand what drives the impact of Covid-19 on the identified firm performance indicators on firm value, we use the Structural Break Test as a tool to corroborate the view of a shock on our subject, the comparative figure on the Structural Break Test and the CUSUM of Squares Test Curve Graph shows an interesting pattern. The shock due to Covid-19 is seen as the data we break with interpolation in quarterly form increases. It appears that the Firm Value decreases as the percentage of Covid-19

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increases which occurred in 2020 quarter 2. To get this pattern, we not only use the Profitability variable but also use all financial performance ratios in 2020 to capture the impact of Covid-19.

The results show that the shock in the second quarter of 2020 had a significant impact on several banks. Two of the four state-owned banks we studied consistently showed significant Structural Break Test values on all bank performance variables. Thus, it can be stated that 50% of our sample is significantly affected by the Covid-19 pandemic. Of the four state-owned banks, only one of our samples passes the Structural Break Test on all of its variables, namely Bank BRI, while the rest show mixed results on its performance variables. This result provides two important perspectives. First, that different anticipatory measures and responses among banks may determine different outcomes of the shock impact on each bank. Second, we suspect that banks that are unable to pass the Structural Break Test are actually banks with market shares (both in terms of assets, deposits, and lending) that are quite large and risky to the economy.

At the end of 2019, these four banks' lending market share accounted for 43.3% of all Indonesian banking sector loans. These state-owned banks are also lenders to the corporate sector with credit growth above the national banking industry. However, the collapse of the corporate sector during Covid-19 eventually had derivative impact on this group of banks. Outstanding third party funds and loans during Covid-19 in this group of banks were smaller than other banks. Net profit fell from 47.7% to 45.6% in the second quarter of 2020, credit suffered similarly as these banks had very little funds to allocate. We also suspect that the shock felt by most state-owned banks but has no impact on the only bank that passed this test – bank BRI – because almost most of the portion of credit disbursed by BRI, around 80.62%, are targeted at the MSME sector which tends to be more able to survive the Covid-19 shock than other business sectors. It seems that the market share of MSME loans reaching 70.66% is quite capable of securing the bank's performance from the shock of the Covid-19 pandemic compared to other banks.

CONCLUSION

In general, our results from using two different approaches yield identical findings around the impact of internal factors (performance of financial variables) on firm value. We find that firm value is directly impacted by internal factors (performance) and economic shock from Covid-19. Specifically in this study, we try to show two important things: first, how different analytical approaches can produce different findings specifically around the impact of economic shocks on firm value. Multiple Linear Regression can explain how to forecast causal relationships thoroughly and robustly if all assumptions are met. But at the same time, the vulnerability of OLS also affects the prediction accuracy.

Panel Data using Fixed Effects (at least) in this study is more capable of capturing how the impact of the concept of economic shocks on firm value more accurately. With the advantage of capturing differences in individual characteristics, Panel Data is expected to provide more complete information for researchers which is not obtained in analyzing cross section data or time series data separately. Secondly, a detailed Structural Break Test is conducted to ensure that there are indications of shocks that go beyond the usual analysis. Finally, we may agree on the influence of internal factors on the value of a firm,

but the accuracy of the impact on paper may differ depending on how we choose the analytical instrument.

RESEARCH LIMITATIONS

The limitation of this study is that the sample studied is limited to state-owned banks only. We suggest for future research to enlarge the sample using all conventional banks or Islamic banks that go public and using a more complex approach to strengthen the conclusions.

UNDER PEER REVIEW

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