

The effect of market risk on returns: Case of banking in Indonesia

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ABSTRACT

The banking industries are a sector that play important role to support national development and national economy. During Covid-19 pandemic, most of market in the world include Indonesia has urgent circumstances. The objective of this study is to examine whether the Covid-19 pandemic has bad impact on returns of banking industries. The results of regression over January 3, 2020, to December 30, 2021 show that there is positive relationship for risk-return of BBNI and BBRI. Those results imply that Covid-19 pandemic does not have significant effect on returns for those banks. It also means that most investors feel safe for those banks financial performance.

Keywords: market risk; returns; banking; CAPM; IHSG
JEL Classification: G11; G12; G32

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1. Introduction

The Law Number 7 of 1992 as amended in Law Number 10 of 1998 explains that banking is a business entity that aims to collect funds from the public in the form of savings and channel them back to the community in the form of credit and or other forms in order to improve the standard of living of the people at large. According to Muhlizi (2017) and Fahrial (2018), banking is one of the sectors that support national development and drive the national economy. At the beginning of 2020, the Covid-19 pandemic had a significant impact on the national economy, especially banking. Sumarni (2020) explains that the Covid-19 pandemic presents its own challenges to banking conditions.

Some empirical evidence shows that the Covid-19 pandemic has greatly affected banking performance in

Indonesia. Habibi et al. (2021) find that there is an unstable profit movement during the Covid-19 pandemic in the period December 2019 to December 2020. Wastuti and Hasan (2022) find that the Capital Adequacy Ratio (CAR) is significantly different before and during Covid-19 in the range of 2018 until 2021, in the sense that there are still funds that are not optimally distributed to the public. Putri (2020) finds that there is a decline in the price of banking shares and a significant difference in value before and during Covid-19. Irianto et al. (2021) conclude that there is a decline in the share price of Bank Central Asia Tbk., Bank Rakyat Indonesia Tbk., Bank Negara Indonesia (Persero) Tbk., and PT Bank Mandiri Tbk. for 10 months since the beginning of the Covid-19 pandemic the average decline in stock prices for the four banks in a row is -6.3%, -57.8%, -39.5%, -

27.8 %. On the other hand, Irvano and Muslimah (2021) also show that there has been no change in the share price of Islamic issuers from the early days of the Covid-19 pandemic.

However, some empirical evidence also proves that the Covid-19 pandemic does not completely have a negative impact on banking performance in Indonesia. For example, Ihsan and Hosen (2021) prove that the performance of BNI Syariah in Indonesia still achieves good performance in the period 2015 to 2020. Moreover, Sugiharto et al. (2021) find that the Covid-19 pandemic does not adversely affect the growth of total assets, the capital adequacy ratio, non-performing financing, and operating efficiency ratio of banks in Indonesia although the negative impact occurred on returns on assets, financing to deposits ratio, and net operating margin in the period April 2019 to February 2020 and April 2020 to February 2021. Sullivan and Widodoatmodjo (2021) also find that the capital adequacy ratio of banks increases from 2019 to 2020. Siska et al. (2021) also find that there is no significant difference between conventional banking stocks, but Islamic banking stocks have a significant increase in the range of 2 March 2019 to 1 March 2020 and in the range of 3 March 2020 to 2 March 2021. Based on this phenomenon, this study assumes that investors will overvalue the banks if they have better financial performance. On assumption, the purpose of this study is to analyse the impact of the market return of IHSG on the returns of the banking sector in Indonesia.

2. Literature review

The risk and return of security generally use an equation model called the Capital Asset Pricing Model (CAPM). The CAPM concept is an equation model that can explain the relationship between market returns and firm returns (Fama, 1970). Budiarmo et al. (2020) explain that the positive relationship between market

returns and firm returns tends to reflect investors' perceptions of security in the market. Fama and French (2004) explain that the concept of the CAPM can provide an overview of how risk is measured. Budiarmo and Pontoh (2019) find that the increase in the return of a stock will be in line with the increase in risk.

Murharsito (2021) finds that stock returns experienced a significant decline after the announcement of the Implementation of Community Activity Restrictions (or PPKM) on 5 days before and 5 days after July 1, 2021. Consistently, Kristina (2022) also finds that banking stock prices decreased after the announcement of the Covid-19 pandemic especially on March 3, 2020 to September 10, 2020 which implies a reduced risk of these securities. Rahmawati and Sukmaningrum (2020) find that the beta has a positive and significant effect on stock returns in the period 2014 to 2018. Similar results, Rahmi (2021) also finds that there is a positive relationship between systematic risk and stock returns from 2015 to 2019.

Ha: market return has significant effect on stock return

3. Research method

The object of this study is the listed banking sector with selected samples, namely Bank Negara Indonesia (BBNI) and Bank Rakyat Indonesia (BBRI). The data source for this study is the Indonesia Stock Exchange with an observation period of January 3, 2020, to December 30, 2021. In order to test the hypothesis, this study conducts simple regression analysis with a significance level of 5%. The CAPM-based equation can be written as follows:

$$R_i - RF = \alpha + \beta MR - RF + \varepsilon_i$$

In equation (1), R_i is the return from firm i , MR is the market return (IHSG) throughout the observation period, and RF

is the risk-free investment throughout the observation period as measured by the Bank Indonesia interest rate. In order to test the feasibility of the regression model, the F test is used at a significance level of 5%. In addition, the correlation coefficient (or R) is used to assess the extent to which the independent variable is related to the dependent and the adjusted R square coefficient is used to assess the extent to which the independent variable can explain the dependent variable model.

4. Result and discussion

4.1. Descriptive statistics

Table 1 presents that the mean returns of IHSG is equal with BBNI while BBRI has mean returns for 0.0002. The results show that BBRI has higher returns during period of observation. The descriptive statistics also shows that BBRI has higher maximum return (0.20) than IHSG (0.10) and BBNI (0.14). But, the skewness for IHSG, BBNI, and BBRI reveal that those returns are mostly positive during the period. The kurtosis for those returns also shows positive value which implies that that the peaks are high. Those results mean

that the mostly returns of IHSG, BBNI, and BBRI are relatively low.

Table 1. Descriptive statistics

	IHSG	BBNI	BBRI
N	488	488	488
Mean	0.0001	0.0001	0.0002
Skewness	0.279	0.456	0.987
Kurtosis	9.525	3.657	7.374
Minimum	-0.07	-0.12	-0.09
Maximum	0.10	0.14	0.20

4.2. Market and stock returns of BBNI

Table 2 shows that the R reflects strong relationship between market return and stock return. Also, the R square shows that the market return can explain 61.9% of the model of stock return of BBNI.

Table 2. Model summary

R	0.787
R Square	0.619
Adjusted R Square	0.618
Std. Error of the Estimate	0.01730

Table 3 also shows that the F test is significant at 5%. This result implies that the regression model is fit.

Table 3. F test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.236	1	0.236	788.427	0.000
Residual	0.145	486	0.000		
Total	0.381	487			

Dependent Variable: BBNI

Table 4 shows the result as the main objective of this study. The regression coefficient of IHSG shows level of significance below than 5% with positive value. This result means that the market

return or IHSG has positive impact on stock return of BBNI. It also means that the increasing of IHSG for 1 also increases stock return of BBNI for 1.643.

Table 4. Regression result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	-5.855E-005	0.001		-0.075	0.940
IHSG	1.643	0.059	0.787	28.079	0.000

Dependent Variable: BBNI

4.3. Market and stock returns of BBRI

Table 5 shows that the R also reflects strong relationship between market return and stock return. Also, the R square shows that the market return can explain 59.3% of the model of stock return of BBRI.

Table 5. Model summary

R	0.770
R Square	0.593
Adjusted R Square	0.592
Std. Error of the Estimate	0.01745

Table 6 also shows that the F test is significant at 5%. This result implies that the regression model is fit.

Table 6. F test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.215	1	0.215	706.855	0.000
Residual	0.148	486	0.000		
Total	0.363	487			

Dependent Variable: BBRI

Table 7 also shows the result as the main objective of this study. The regression coefficient of IHSG shows level of significance below than 5% with positive value. This result means that the market

return or IHSG has positive impact on stock return of BBRI. It also means that the increasing of IHSG for 1 also increases stock return of BBRI for 1.569.

Table 7. Regression result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	0.000	0.001		0.139	0.890
IHSG	1.569	0.059	0.770	26.587	0.000

Dependent Variable: BBRI

The results for BBNI and BBRI show consistency with the concept of risk-return relationship. This means that most investors feel safe for those banks in assumption that they still have better performance. It also reflects that the Covid-19 pandemic during January 3, 2020, to December 30, 2021 does not change the risk-return relationship for those banks. The results of regression also show that BBNI has higher market risk than BBRI during this period. Under these findings, this study cannot reject the hypothesis that market return has significant effect on stock return. Empirically, both results for BBNI and BBRI are consistent with the findings of Budiarmo and Pontoh (2019), Rahmawati

and Sukmaningrum (2020), and Rahmi (2021).

5. Conclusion

The Covid-19 pandemic has significant impact on market especially in Indonesia. More specific, this study suspects that mostly banking industries should not have bad impact as they still have better financial performance. The findings show that market return has significant and positive effect on stock return specially for banking industries. It means that the market return of IHSG will trigger the banking returns to increase. The findings also imply that most of investors still have trust on banking industries during the Covid-19 pandemic as they have good financial performance.

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