Risk Analysis Of Banking Companies Listed On Indonesia Stock Exchange During Covid-19 2020

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ABSTRACT

This article discusses the case of COVID-19 which has provided bad news for global financial markets, especially capital markets on the Indonesia Stock Exchange. Many companies are experiencing a drop in the share price experiencing risk. The risk faced by banking companies listed on the Indonesia Stock Exchange is a very drastic drop in the share price. This condition makes the banking company experience liquidity risk and credit risk. The purpose of this study is first to find out if there is a link between the number of COVID-19 cases and the share price. Secondly to find out if the bank is experiencing liquidity risk and credit risk during COVID-19.

The research method is secondary data analysis by conducting correlation testing and descriptive statistic. The sample was taken by 10 banking companies listed on the Indonesia Stock Exchange using pruposive sampeling or using criteria techniques. The practical contribution of this research is to find out if there is a relationship between the number of COVID-19 cases and the share price and can give the right decision in managing the risks that occur. In addition, banking companies can provide information related to the condition of the company during the economic crisis.

Keywords : Liquidity Risk; Credit Risk; Banking; Capital Market; COVID-19

1. Introduction

The World Health Organization (WHO) officially declared the coronavirus outbreak (COVID-19) a global pandemic on March 1, 2020. The number of confirmed cases reaches 500 thousand cases and continues to increase (WHO, 2020), approximately 170 countries affected by the pandemic, and the United States is the Country that has the most cases. This pandemic has a significant economic impact, in a short period of time many Countries impose quarantine policies, and limit their economic activities. The long-term impact of this pandemic is that the increasing and business failures of some industries such as aviation and tourism will inevitably face difficulties. (Zhang et al., 2020)

The impact of COVID-19 spread has dramatically impacted financial markets around the world, (Zhang et al., 2020)(Nicola et al., 2020)(Sharif et al., 2020); (Ahmar & Boj, 2020) the spread of the COVID-19 pandemic caused the share price in the stock market to deteriorate greatly and

investors began to panic to buy or sell their shares. In Indonesia, companies listed on the Indonesia Stock Exchange experienced a decline in the share price due to COVID-19 (Avramidis et al., 2020). The share price incorporated in the Indonesia Stock Exchange is named JCI (Composite Stock Price Index) is one of the stock market indices used by the Indonesia Stock Exchange as an indicator of stock price movements.

This research examined banking companies listed on the Indonesia Stock Exchange because according to data https://idx.co.id banking companies experienced the most drastic decline of 7.70%. In line with research (Brana et al., 2012) that stated that in the condition of economic crisis, bank interest rates decreased and increased the amount of money in circulation so as to affect the share price.

Banking companies are experiencing problems with profitability or the ability of banks to raise capital required by new capital regulations for economic financing (Bongini et al., 2019) (Turk Ariss, 2010). Therefore the risk facing banking companies in their business is substantial liquidity risk and can increase if other short-term bank creditors quit (Acharya & Mora, 2015) (Aldasoro et al., 2020).

In addition to liquidity issues according to (de Haan et al., 2020) (Lagoarde-Segot & Leoni, 2013) mentions that banks are also experiencing credit problems or defaults, in its business activities. (Lagoarde-Segot & Leoni, 2013) (Nozawa & Qiu, 2020) (Arif & Nauman Anees, 2012) mentioned that the massive withdrawal of deposits made by customers became a credit problem for the banking sector. The type of risk experienced by banking companies is a systematic risk where this risk is a risk caused by changes in the share price in the stock market.

This study developed the results of a study from (Zhang et al., 2020) which found about some countries affected by COVID-19 with high levels of systemic risk. However, the study has not explained the risks faced by companies in capital markets due to COVID-19. This research will analyze the banking risks listed on the Indonesia Stock Exchange during the COVID-19 period.

The question that became the main point of this research, as follows: first is there a relationship between the number of COVID-19 cases and the share price? secondly do banking companies experience liquidity risk during COVID-19? and the third are banking companies experiencing credit risk during COVID-19?. The purpose of this study is to further explain the results of the study (Zhang et al., 2020) which is to analyze the risk of COVID-19 impact on banking companies listed on the Indonesia Stock Exchange using systematic risk analysis. And to answer research questions.

The practical contribution of this research is the first to provide the results of an analysis of the liquidity risks affecting banking companies during COVID-19, and the second provides the results of credit Risk analysis affecting bank companies during COVID-19. In addition to practical contributions there is a theoretical contribution from this research which is to provide further research from previous research where previous research only explained about the impact of COVID-19 on some Countries using systemic risk analysis. And this study examines more about the impact of COVID-19 on companies listed on the Indonesia Stock Exchange using systematic risk analysis.

2. Literature Review and Hypothesis Development

2.1 Literature Review

2.1.1 Capital Markets
The capital market is a place where sellers and buyers meet to transact with the aim of obtaining funds, (Kasmir, 2014). The capital market serves as an intermediate institution. Capital Market Instrument capital market law No. 8/1995 defines securities are securities, namely bonds, commercial securities, stocks, bonds, proof of debt, collective investment participation units, futures contracts on securities and any derivatives of securities. Shares that are a sign of the capital investment of a person or party (business entity) in a company or limited liability company.

2.1.2 Bank Understanding
Law No. 10 of 1998 on Banking (article 1 paragraph 2), mentioned that the bank is a business entity that serves to raise funds from the community in the form of deposits (savings) and distribute it to the public in the form of credit and or other forms aimed at improving the living standards of the people. Indonesian Law No. 10/1998 on Banking (article 1 paragraph 3) explains, the definition of a commercial bank is a bank that conducts sharia and conventional activities in its activities that provide financial services in payment traffic.

2.1.3 Liquidity Risk
Liquidity risk is a risk that arises from the company not being able to pay short-term liabilities, (Hanafi, 2014). The theory used is the theory of decision making (Krishnamurthy, 2010) states that the decision-making must be based on the consideration of a company being able to overcome its liquidity problems. Research (Van Horne, et al 2008) uses liquidity ratios to measure liquidity risk. This ratio compares how the company's short-term debt can be met with current assets held by the company. (Hanafi, 2014) formulates the Current Ratio as follows to calculate liquidity risk:

$$Current\ Ratio = \frac{Current\ Assets}{Current\ Liability}$$

(1)

2.1.4 Credit/Financing Risk
Financing risk is a risk caused by the failure of counterparty in fulfilling its obligation, (Hanafi, 2014). Credit risk is becoming increasingly important because of the many default events experienced by domestic, overseas and even a country. The theory used in credit risk is Option Theory which states that the right to sell assets at a certain price for a certain period. According to Bank Indonesia credit risk can be calculated using NPL (Non Performing Loan) which is an abnormal, stalled and doubtful condition. According to (Ekinci & Poyraz, 2019) NPL can be formulated as follows:

NPL: $\quad \dfrac{Non-performing\ loans}{Total\ Credits}$ (2)

So the higher the NPL value of a Bank, the worse the quality of the bank and will result in a larger and greater amount of credit, and this causes the bank financial difficulties.

2.2 Hypothetical Development

2.2.1 There is a Negative Relationship between the Number of COVID-19 Cases and the Share Price

The rapid spread of the COVID-19 virus as well as the increasing number of confirmed cases triggered a swift reaction from the Chinese government, (Zhang et al., 2020). In Indonesia the COVID-19 case is confirmed to be 150 people https://kemenkes.go.id. Since March cases have been growing. As a result, capital market conditions lowered the share price and caused investors losses. Judging by the data http://www.idx.co.id almost all companies listed in JCI experienced a decline in the company's share price.

Banking companies experienced a very drastic drop in share prices, in line with research (Goodell, 2020) finding that banks or financial institutions were vulnerable during the economic crisis, due to rising bad loans and a large increase in deposit turnover that caused the share price to become volatile. (Aldasoro et al., 2020) states that if the bank experiences desecration, funding, and a stable credit rating it will affect the well-developed share price. But in the circumstances of the crisis the bank experienced the opposite.

Portfolio Theory states that risk can be reduced by combining assets into a portfolio. During COVID-19 this theory can be applied to reduce the risks faced by investors due to the decline in the share price. (Zhang et al., 2020) (Ahmar & Boj, 2020) suggested a link between the increasing number of COVID-19 cases and the fall in the share price in the capital market. The increase in the number of confirmed cases is in line with the drastic decline in the share price in the capital market.

H1. There is a Negative Relationship between the Number of COVID-19 Cases and the Share Price

2.2.2 Banks Experience Liquidity Risk during COVID-19

Banking risk management explains that the Bank is a financial sector company that must have risk management to manage potential risks and rill risks, (Hanafi 2014). In COVID-19 conditions many companies lay off their employees because they cannot afford to pay salaries. The dismissed employee will take his deposit and result in the bank experiencing liquidity problems, (Krishnamurthy, 2010). Liquidity issues can quickly turn into solvency issues ((Nozawa & Qiu, 2020)(Acharya & Mora, 2015). According to (Tran, 2020) large-scale deposit withdrawals can be a liquidity risk to banking companies.

H2. Banks Experience Liquidity Risk During COVID-19

2.2.3 Banks Experience Credit Risk during COVID-19

The study (Lagoarde-Segot & Leoni, 2013) found the spread of COVID-19 in various developing countries saw an increase in deposit turnover. (Goodell, 2020) states that the Bank is particularly vulnerable during economic crisis, due to the possibility of bad loans. This is because banks do not have liquid funds to meet the needs of customers who make large-scale deposit withdrawals.

At a time when share prices are declining and credit market conditions are very tight, companies usually respond by using liquidity insurance and reducing credit limits, (Acharya & Mora, 2015). Supported research (Avdjiev et al., 2019) (de Haan et al., 2020) COVID-19 period many banks experience credit risk ordanan risk. (Aldasoro et al., 2020) states that at the time of the crisis banks experienced credit default swaps (CDS) which caused banking companies to suffer credit risk.

H3. Banks Experience Credit Risk during COVID-19

3.   Research Methodology

3.1 Research Design

This type of research is quantitative research with secondary data analysis research methods found in http://www.idx.co.id. The data obtained from http://www.idx.co.id tested with an analysis tool, so researchers do not need to provide treatment to the samples studied. The research site is a place where concepts or variables are tested (theoretically), (Suliyanto, 2017). In this study the research location used is the Indonesia Stock Exchange, because this research examines about banking companies listed on the Indonesia Stock Exchange.

The object of research is variable or what is the point of attention of a research or variable researched in research (Suliyanto, 2017). The research object in this study is the case of COVID-19 and banking companies listed on the Indonesia Stock Exchange. The subject of the study is the place where variables are attached, (Suliyanto, 2017). The subject of the study was the Indonesia Stock Exchange.

3.2 Population Targets, Samples and Data Sources

3.2.1   Population

According to (Sugiyono, 2008) gives the understanding that Population is a generalized region consisting of objects or subjects that become certain quantities and characteristics set by researchers to study and then draw conclusions. The population in this study is all companies engaged in the financial secretary, namely banking companies listed on the Indonesia Stock Exchange which number 45 banking companies.

3.2.2 Sample

The sample is part of the population to be studied, (Suliyanto, 2017). Sampling techniques used are purposive sampling with the following sampling criteria: 1) Companies selected in the form of financial sector (Bank) listed on indonesia stock exchange (IDX) for March - July 2020, 2) Companies presenting financial statements in rupiah, 3) The Company presents complete data on the variables used in this study during the period of March – July 2020 , 4) The Company publishes financial statements for the period ended December 31 during the research year range that is March - July 2020. 6) the company has conducted a minimum IPO in 2010. The samples in this study amounted to 10 banks that were included in the sample selection criteria.

3.2.3   Data Sources

The source of data in this study is secondary data, namely data that has been collected by other parties, (Suliyanto, 2017). In this case the source of this research data is sourced from

http://www.idx.co.id, https://www.ojk.co.id, https://.www.kemenkes.go.id, Yahoo Finance, Capital Market Guidelines, etc. The method of collecting data in this study is to use literature study, because the required data already exists and only conducts testing.

3.2.4 Data Analysis

Data from March to July 2020 was collected to further explore stock patterns of market reaction. Indices for all stock markets on the Indonesia Stock Exchange are downloaded from http://www.idx.co.id, All data on global COVID-19 infections comes from https://.www.kemenkes.go.id website, in 2020. The data analysis in this study uses the following analysis:

3.2.4.1 Correlation Analysis

The study (Zhang et al., 2020) conducted a correlation test by analyzing capital market risks during COVID-19. This research will use correlation analysis as for hypothesis testing 1 which is the relationship between the number of COVID-19 cases and the share price of banking companies listed on the Indonesia Stock Exchange from March – July 2020. With the acceptance criteria if r count is greater than r table then accepted but vice versa. According to (Suliyanto, 2017) Correlation analysis is one of the statistical techniques used to analyze the relationship between two or more variables that are quantitative, with the following formulas :

$$r_{xy} = \frac{n \sum x_i y_i - (\sum x_i)(\sum y_i)}{\sqrt{\left\{n \sum x_i^2 - (\sum x_i)^2\right\}}\sqrt{\left\{n \sum y_i^2 - (\sum y_i)^2\right\}}} \qquad (3)$$

3.2.4.2 Descriptive Statistics

Descriptive Statistics is an analysis that generates results on the description of a data and can be seen with minimum value, maximum, average (mean), standard deviation, etc. This analysis serves as an analytical technique for testing hypotheses (Ghozali, 2018). In this study, descriptive statistical analysis as a hypothesis analysis 2, namely that banking companies experienced liquidity risk during COVID-19, and hypothesis 3, namely that banking companies experienced credit risk during COVID-19.

4. Results

4.1 Research Object Overview

The research object in this study is a banking company listed on the Indonesia Stock Exchange. The financial statements used are monthly financial statements from March to July 2020 and are taken from https://www.ojk.co.id and https://.www.idx.co.id. Determination of research samples using purposeive sample and obtaining a sample 10 Banks consisting of, Bank Rakyat Indonesia Tbk (BRI), Bank Tabungan Negara Tbk (BTN), Bank Mandiri Tbk, Bank Tabungan Negara Tbk (BTN), Bank Amar Indonesia Tbk, Bank Central Asia Tbk (BCA), Bank Arthos Indoesia Tbk, Bank Ganesha Tbk, Bank Yudha Bhakti Tbk, and Bank Harda Internasional Tbk.

From the sample data above this study intends to examine the relationship between the number of COVID-19 cases and the share price and to find out if banking companies are experiencing liquidity risk and credit risk in the COVID-19 period.

4.2 Correlation Analysis

The correlation analysis in this study is to find out the relationship between the number of COVID-19 cases and the results show that r count of 0.959 and r table of 0.878 then it can be known that r count is greater than r table and the result is that there is a negative relationship between the number of COVID-19 cases and the share price. Then hypothesis 1 is accepted in accordance with the criteria of acceptance.

4.3 Descriptive Statistics

Descriptive Statistical Analysis in this study is to find out two variables and to show the minimum value, maximum value, average value (mean) and standard deviation. Below is the descriptive statistics table:

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
risikolikuiditas	50	1.05	3.92	1.5016	.73706
risikokredit	50	.01	.72	.1514	.13705
Valid N (listwise)	50				

From the descriptive statistic table above, it can be known that during COVID-19 banking companies experienced liquidity risk with a standard deviation of 0.73706 then hypothesis 2 was accepted. And banking companies experience credit risk with a standard deviation of 0.13705 then hypothesis 3 is accepted.

5. Discussions

The results of this study support research from (Zang et al., 2020) that there is a link between the increasing number of COVID-19 cases in line with the decline in the share price of the company on the Indonesia Stock Exchange. Due to the increasing number of COVID-19 cases, the share price has decreased. The share price continues to manage with an increasing level of risk resulting in banking companies listed on the Indonesia Stock Exchange.

In addition, the results of this study support the results of research from (Krishnamurthy, 2010) mentioned that as a result of the massive turnover of deposits, banking companies experienced liquidity risk. The findings of this study on descriptive statistical analysis can be seen that banking companies are experiencing liquidity risk. In addition to liquidity risks at a time when the share price is declining credit market conditions are very tight and cause banks to experience credit default swaps (CDS) which causes banking companies to experience credit risk. The results of this study support the research (Aldasoro et al., 2020) that in the descriptive statistical

analysis seen that banking companies experienced credit risk during the COVID-19 period.

6. Conclusion

7.

This study analyzes two things, the first of which is whether there is a link between the number of COVID-19 cases and the share price. Secondly, banking companies experienced liquidity risks and credit risks during COVID-19. And from this study we found two conclusions, the first of which is that there is a negative relationship between the number of COVID-19 cases and the share price. This may indicate that the higher the number of COVID-19 cases the lower the share price.

Both banking companies experienced liquidity risk and credit risk judging by standard deviation, it was concluded that during COVID-19 or economic crisis banking companies may experience liquidity risk and credit risk. And banking companies need to be more careful in decision-making.

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