Stock Liquidity Listed on IDX Main Board During the COVID-19 Pandemic

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Abstract. This study is conducted to investigate the effect of the COVID-19 pandemic to the stock liquidity listed on the main board index (MBX). The study employs a panel data regression to analyze the impacts of COVID-19 pandemic proxied by the daily growth of total cases and total deaths due to COVID-19 as variables independent to stock liquidity proxied by Spread and Illiquidity Amihud (2002) as variable dependent from 3 March to 30 November 2021. The results show that there are negative impacts of the COVID-19 pandemic to stock liquidity. Analysis between sectors show that there are significant differences in the impacts of pandemic, the Mining and Finance sectors are the most affected, but Consumer Good Industry, Agriculture, and Trade, Services, & Investment sectors are the least affected.

Keywords: Stock liquidity · Pandemic COVID-19 · Financial Market · Main Board Index

1 Introduction

Liquidity is one of the characteristics of a financial asset that has a critical role in financial market operations (Ahmed et al., 2020) [1]. Liquidity is also one of the goals of the capital market because liquidity allows efficient capital allocation and financial markets with high liquidity tend to attract more investors (Tran et al., 2018) [2]. Haroon (2020) [3] tells that liquidity in financial assets can provide information to investor related to economic condition in a country. According to Glosten & Milgrom (1985) [4] and Hasbrouck (1988) [5], the widening spread of the bid and ask prices occurs when there is uncertainty and risk, where the spread of the bid-ask price is related to liquidity. While, Amihud (1990) [6] reveals that the market decline could occur as a result of an illiquid market. So, when the uncertainty is high or the financial crisis occurs, liquidity is very important thing to study (Rephael, 2017) [7].

In the end of 2019, the COVID-19 pandemic attacked China and contagious almost the whole world. The transmission of the COVID-19 has had a major impact on global financial markets. While the impact on the global economy is not yet clear, the financial market response has already decreased. Baker et al. (2020) [8] find that the COVID-19 pandemic has had a very strong impact on the stock market compared to other infectious disease outbreaks including the Spanish flu. The impact of spread of COVID-19 affected

financial market conditions in Indonesia, where after announcing the first two patients, the Indonesian financial market experience a decline in the JCI to its lowest level of 3,938 on 24 March 2020, also accompanied trading halts six times during March 2020 and September 2020 one time (idxchannel.com).

Moreover, the COVID-19 pandemic impact the downturn economy in capital market (Susilawati et al., 2020) [10] and there is uncertainty about the severity and length of the impact. Still, the market uncertainty allows decreasing in stock liquidity (Rephael, 2017 [7]). Meanwhile, capital market investors require high liquidity for their assets because help them meet unexpected financial needs without incurring major losses. But the low liquidity can increase trading costs, so elaborating it during crisis can help minimize losses. In addition, portfolio managers and policy makers need to concern the issue of liquidity for maintaining financial market stability during the pandemic. Therefore, this study investigates the impact of the COVID-19 pandemic on stock liquidity in Indonesia.

This study analyzes the impact of the COVID-19 pandemic on stock liquidity in Indonesia due to several things. First, Indonesia is the 16th country in the world and the first country in ASEAN with the most COVID-19 cases based on data on March 3, 2022. Second, due to the COVID-19 pandemic, there has been a decline in financial market performance (Endri et al., 2021) [11]. Third, based on Liu et al. (2020) [12], the decline stock in ASIA more reacted on the COVID-19 pandemic compared to others. In this study, we will focus on stocks listed on the main board index. In Indonesia, the stocks listed in three different board based on finance & accounting and offering structure. Main board index consist stocks listed with better performance in term of finance and accounting, and have better offering structure in term of amounts of stock and shareholders.

Analyzing the impacts of the COVID-19 pandemic on stock liquidity using regression panel data with Least Square Dummy Variable (LSDV) method between the exposure of COVID-19 pandemic to spread and illiquidity Amihud (2002). We find that the exposure of covid-19 pandemic gives negative effect to stock liquidity, these results are consistent with previous study by Chebbi et al. (2020). In analysis between sector, we find evidences that there are differences effect the COVID-19 pandemic to stock liquidity. The Mining and Finance are the most effected sectors. Whereas, Consumer Good Industry, Agriculture, and Trade, Services, & Investment is sector with better liquidity and gain benefit from pandemic.

There are several contributions of this study. First, previous studies regarding the impact of the COVID-19 pandemic on several things in Indonesia, such as stock prices (Aisanafi, 2020) [13], stock returns (Nia, 2020 [14]; Herwany et al., 2021 [15]), volatility and risk, the stock market (Nugroho & Robiyanto, 2021 [16]; Endri et al., 2021 [11], Lubis, 2021 [17]), the financial market (Sugandi, 2021 [18]), and the company's financial performance (Devi et al., 2020 [19]). However, there is not much literature discussing the impact of the COVID-19 pandemic on stock liquidity at the firm level for main board index in Indonesia. Second, this study also provides an overview of stock liquidity in developing countries which is different from previous research in developed countries. Third, this study will describe the different impacts of the COVID-19 pandemic on stock liquidity across sectors and see which sectors are most affected by the COVID-19 pandemic.

2   Literature Review and Hypotesis Development

Previous research found the spread of pandemic disease widely can make a financial crisis. In 2003, the SARS epidemic has caused a weakening of economic conditions in Taiwan where the tourism sector is the most affected compared to others (Chen et al., 2007) [20]. Chen et al. (2007) [20] report that seven hotel companies in Taiwan experience decline in terms of income and stock prices. Chen et al. (2013) [21] reveals that the SARS outbreak also affected stock returns in Philippines and Hong Kong. In addition to the SARS outbreak, the Ebola epidemic also hugely impacted companies registered and operating in West African countries (Ichev and Marinc, 2018) [22].

The COVID-19 pandemic has had a major impact on the Indonesian economy Susilawati et al. (2020) [10] explains that the increase in COVID-19 cases has a significant impact on the global economy and affects stability in Indonesia. Furthermore, Endry et al. (2021) [11] find that the effect of the COVID-19 pandemic on financial markets showed a decline in JCI performance at the lowest level and JCI volatility increase during the pandemic.

Financial events or economic crises can lead to reduced liquidity, Liu (2006) [12] reports evidence that large declines in liquidity due to large economic and financial events, the crash in 1987, the 1997 financial crisis in ASIA, the burst of the hi-tech bubble in 2000, and terrorist attacks on September, 2001, led to reduced liquidity in the stock market in the US. In addition, other studies have also reported a close relationship between the crisis period and higher liquidity costs (Yeyati et al., 2008) [23]. Tran, et al. (2018) [2] also detects in Vietnam, which is a developing country, shows a decline in stock liquidity during the crisis in 2008.

Previous research has shown the COVID-19 pandemic give a major effect on financial markets. There is an increase in global financial market risk, moreover a pandemic causing markets to become unstable and unpredictable (Zhang et al., 2020) [24]. In addition, pandemic affects the Indonesian financial market by causing a decrease in cumulative abnormal returns. Furthermore, Albulescu (2020) [25] shows that increasing the degree of death make increasing the volatility index in China. In addition, Baig et al. (2020) [26] conducts research on equity markets in the US and reports increasing liquidity and market instability due to increasing the number of confirmed cases and deaths from COVID-19.

In accordance with research on liquidity, the COVID-19 pandemic has negative impact to stock liquidity in US, where the COVID-19 pandemic causes a decrease in stock liquidity (Chebbi et al., 2020) [27]. Another study conducts on daily data in emerging countries conducted by Zaremba et al. (2021) [28] discovers that school and workplace closures due to the COVID-19 pandemic reduces liquidity. Based on the explanation, the first hypothesis for this study is:

H1: The COVID-19 pandemic give negative impact to the liquidity of stocks listed on the main board index in Indonesia.

According the previous study, the pandemic gives large impact on the economy, but not for entire sectors. During the SARS pandemic, the hospitality is one of affected sector in Taiwan (Chen et al., 2007) [20]. Moreover, the Ebola pandemic has a different impact between sectors, the large impact take place in entire industries except for the

health equipment, pharmaceutical, biotechnology, and food & beverage sectors (Ichev & Marinč, 2018) [22].

In Indonesia, previous studies discover that the COVID-19 pandemic has different effects across sectors. The household sector is the most affected sector in the economic side (Susilawati et al., 2020) [10] and Finance is the most effected sector based on the cumulative abnormal return (Herwany et al., 2021) [15]. In terms of stock liquidity during the COVID-19 Pandemic, there is difference impact of the COVID-19 pandemic across sectors in the S&P 500 where the Energy sector is the most affected (Chebbi et al., 2021) [27]. Based on this explanation, the second hypothesis of this study is:

H2: There are differences in the impact of the COVID-19 pandemic on stock liquidity in across sectors.

3 Data and Method

3.1 Data

The object of this study is the stocks listed on the main board index (MBX) based on the effective constituent period October to November 2021. The stocks listed on the main board index are better performance in term of finance and accounting, and have better offering structure in term of amounts of stock and shareholders. There are 360 shares or 48.78% of the shares listed in the board index. So that, the main board index is quite significant to represent stocks in Indonesia.

The data was obtained from secondary sources, Thomson Reuters, the official website of the Indonesia Stock Exchange, namely idx.co.id, and for the size of the COVID-19 pandemic obtained from kawalcovid19. The data collected are daily for the period 3 March 2020 to 30 November 2021.

3.2 Variabels

3.2.1 Depedent Variables

According Liu (2006) [12], liquidity is the ability of the investor can trade a large number of financial assets at a low cost with little impact on prices. There are four dimensions in measuring stock liquidity, namely trading quantity, trading speed, trading cost, and price impact.

This study uses a measure of liquidity following the research of Chebbi et al. (2021) [27], namely Closing Percent Quote Spread and Amihud's Illiquidity (2002). These measures are the best proxies to measure liquidity with daily data posit by Fong (2017) [29]. Basically, these two measures have different dimensions on measuring liquidity. The bid-ask spread measure trading cost dimension by calculate the daily average of all bid-ask spreads. The formula for bid-ask spread for time i and company t is:

$$\text{CPQS}_{i,t} = \frac{\text{ClosingAsk}_{i,t} - \text{ClosingBid}_{i,t}}{\left(\text{ClosingAsk}_{i,t} + \text{ClosingBid}_{i,t}\right)/2} \tag{1}$$

The measurement results with the CPQS state that the higher CPQS indicates the lower of stock liquidity, vice versa. The second proxy measure is Illiquidity Amihud (2002) using a cost-per-dollar-volume proxy. Amihud's Illiquidity Measure (2002) quantify the price impact dimension, which measures how much influence the price has on a certain trading volume. The formula for measuring stock liquidity with Illiquidity Amihud (2002) is:

$$\text{Amihud}_{i,t} = \frac{10^6 \times |\text{Return}_t|}{\text{Price}_t \times \text{Volume}_t} \tag{2}$$

The measurement results with Illiquidity Amihud (2002) stated that the increasing of Illiquidity Amihud (2002) indicates decreasing of stock liquidity, vice versa.

3.2.2 Independent Variables

COVID-19 stands for Coronavirus Disease 2019 is a disease caused by the corona virus or severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which attacks the respiratory system. This disease was first detected in the city of Wuhan, China. This virus can spread very quickly and spread to almost all countries in the world, so that the World Health Organization (WHO) declared COVID-19 as a global pandemic on March 11, 2020.

During the COVID-19 pandemic, the number of cases and deaths due to COVID-19 was recorded and used as reference to monitor COVID-19 in an area, and measure exposure to the COVID-19. Following previous research conducted by Al-Awadhi et al. (2020) [30] and Chebbi et al. (2021) [27], exposure to the COVID-19 pandemic measured by (i) daily growth percentage of the total confirmed cases due to COVID-19 (CaseGrowth) and (ii) daily growth percentage of total COVID-19 deaths (Death-Growth). The measure shows that there is an increase (decrease) in the CaseGrowth and DeathGrowth leads to an increase (decrease) in exposure to COVID-19.

3.2.3 Control Variables

This study used firm characteristics as control variables, which is predicted affect the dependent variable. There are five firm characteristics variables used in this study following previous research conducted by Dunham & Garcia (2020) [31] and Chebbi et al. (2021) [27]. First, company size (SIZE) is measured by the logarithm of market capitalization. Second, Beta (BETA) is a measure of the company's risk. Third, absolute return (ABSRTRN) which is a measure of information asymmetry which is measured by the absolute value of the average daily return for five days. Fourth, the volatility (VOL) of the share price as measured by the trading range of the daily share price above the closing price of the stock on the previous day. Fifth, daily stock turnover (TRNVR) as measured by dividing the daily trading volume of outstanding shares.

Table 1. Summary Statistics

Variabel	Min	Q1	Mean	Median	Q3	Max
Spread	0,0005	0,0046	0,0133	0,0070	0,0121	0,4337
Amihud (2002)	0,0000	0,0000	0,0118	0,0000	0,0001	19,5133
CaseGrowth	0,0000	0,0032	0,0218	0,0094	0,0159	2,1667
DeathGrowth	0,0000	0,0036	0,0146	0,0077	0,0138	1,7143
Size	24,2225	27,6425	28,8259	28,7395	29,9863	34,4931
Beta	-2,6449	0,4399	1,0172	0,9440	1,5555	3,9512
Absolute Return	0,0000	0,0025	0,0100	0,0061	0,0129	0,2086
Volatility	0,0000	0,0213	0,0467	0,0362	0,0600	0,4932
Turnover	0,0000	0,0001	0,0026	0,0005	0,0019	0,6763

Notes: This table shows the descriptive statistics of all the variables used in this study. The data used consists of 119351 observations which are unbalanced daily data from 345 stocks listed on the main board of the IDX for the period 3 March 2020 to 30 November 2021

4 Model of Stock Liquidity

This study aims to analyze how the COVID-19 pandemic can affect stock liquidity using three types of variables. The research model to analyze the independent variable is related to the dependent variable by including firm-specifics variables as control variables following the research conducted by Chebbi et al. (2021) [27] as follows:

$$
\begin{aligned}
LIQ_{i,t} = \beta_0 &+ \beta_1 COVID - 19_{t-1} + \beta_2 SIZE_{i,t-1} \\
&+ \beta_3 BETA_{i,t-1} + \beta_4 ABSRTRN_{i,t-1} + \beta_5 VOL_{i,t-1} \\
&+ \beta_6 TRNVR_{i,t-1} + IndustryDummy + YearDummy + \varepsilon_{i,t}
\end{aligned}
\tag{3}
$$

The model above uses independent variable with a time of one day before, following research conducted by Dunham & Garcia (2020) [31] and Chebbi et al. (2021) [27] where information on independent variables was obtained previously to determine stock liquidity on the next day. The estimation method for the regression model above uses the Least Square Dummy Variable (LSDV), and to control the existence of heteroscedasticity and autocorrelation, this research uses robust standard error.

5 Result and Discussion

5.1 Statistics Descriptive

Table 1 shows the statistical descriptive for all the variables used in this study. Spread and Illiquidity Amihud (2002) obtained a mean of 0.0133 and 0.0118. The maximum Spread value of 0.4337 occurred on March 3, 2020 and Illiquidity Amihud (2002) was 19.5133 on March 6, 2020. Furthermore, the size of the COVID-19 pandemic measured by CaseGrowth and DeathGrowth obtained a positive mean of 0.0218 and 0.0146, which

means that increasing the number of cases and deaths from COVID-19 every day. The maximum values for both CaseGrowth and DeathGrowth respectively on March 10, 2020 and March 19, 2020. The firm specific variables consisting of Size, Beta, Absolute Return, Volatility, and Turnover have the mean respectively 28, 8259; 0.9440; 0.0061; 0.0362; and 0.0005.

5.2   The Effect Pandemic COVID-19 on Stock Liquidity

Table 2 shows the regression results the two proxies of the COVID -19 pandemic against the two proxies of liquidity measures, it shows that increasing the COVID-19 pandemic has an effect on increasing the proxies for measuring liquidity which leads to a decrease in stock liquidity. So that, it can support accepting the first hypothesis that there is a negative relationship between the COVID-19 pandemic and stock liquidity listed on the main board in Indonesia, resulting in a decrease in stock liquidity during the COVID-19 pandemic. The result is consistent with the research of Chebbi et al. (2021) [27], and support research on financial markets which states that there is a decline in stock prices (Aisanafi, 2022) [13], a decrease in cumulative abnormal returns (Herwany et al., 2021) [15], and an increase in stock price volatility that is leads to a decrease in abnormal returns (Endri et al., 2021) [11].

The decline in stock liquidity may be caused by several things. First, there is a decline in economic conditions in Indonesia (Susilawati et al., 2020) [10]. Second, there is a policy from the government to limit activities by closing schools and workplaces, where in the early days of the pandemic, facilities and technology were limited so might be problems in conducting trade (Zaremba et al., 2021) [28].

5.3   The Effect Pandemic COVID-19 Across Sector

Tables 3 and 4 show the second hypothesis can be accepted that the impact of the COVID-19 pandemic to stock liquidity differences across sectors. These results are consistent with the research of Chebbi et al. (2020) [27], and support research by Susilawati et al. (2020) [10] and Herwany et al. (2010) [15] find pandemics have different impacts across sectors.

In terms of liquidity, the most affected are Mining and Finance sector. In the Mining sector, this result is inconsistent with the research of Susilawati et al. (2021) [10] which states that the most affected sector is household, and in terms of market return is Finance followed by Trade, Services & Investment (Herwany et al., 2021 [15]). However, according to Widyastuti & Nugroho (2020) [32], the mining sector is heavily affected during the COVID-19 period as a result of policies in handling the pandemic that were implemented in many parts of the world, which contributed to a decline in oil and gas consumption, resulting in a decline in world demand, as well as a decline in global demand, prices and production of oil and gas. Meanwhile, the finance sector supports the research of Herwany et al. (2021) [15], according to him the finance sector is strongly influenced by economy, both domestically and globally, production, and other economic activities.

Furthermore, there are three sectors that have better stock liquidity compared to the others. The three sectors are Consumer Goods Industry, Agriculture, and Trade, Services & Investment. In the Consumer Goods Industry sector, the results support Irmayanti

Table 2. The Effect of Pandemic Covid-19 on Stock Liquidity

Variabel	LSDV			
	(1)	(2)	(3)	(4)
Intersep	0,0878*** (0,0011)	0,2843*** (0,0198)	0,0876*** (0,0011)	0,2848*** (0,0199)
CaseGrowth	0,0084*** (0,0009)	0,0257* (0,0152)		
DeathGrowth			0,0132*** (0,0019)	0,0063 (0,0123)
Size	-0,0024*** (0,0000)	-0,0899*** (0,0007)	-0,0021*** (0,0000)	-0,0090*** (0,0007)
Beta	-0,0064*** (0,0000)	-0,0102*** (0,0008)	-0,0063*** (0,0000)	-0,0102*** (0,0008)
Absolute Return	0,1604*** (0,0094)	0,3948*** (0,0833)	0,1561*** (0,0094)	0,4006*** (0,0848)
Volatility	-0,0137*** (0,0030)	-0,1094*** (0,0345)	-0,0130*** (0,0030)	-0,1060*** (0,0339)
Turnover	-0,1553*** (0,0105)	-0,2523*** (0,0369)	-0,1550*** (0,0104)	-0,2621*** (0,0369)
Year Dummy	Ya	Ya	Ya	Ya
Industry Dummy	Ya	Ya	Ya	Ya
Sample Size	119351	119351	119351	119351
R-squared	0,1525	0,0122	0,1519	0,0121

Notes: Model (1) is a regression model with the independent variable CaseGrowth and the dependent variable Spread, model (2) is a regression model with the independent variable CaseGrowth and the dependent variable Illiquidity Amihud (2002). While model (3) is a regression model with independent variable DeathGrowth and dependent Spread, and model (4) is regression model with independent variable DeathGrowth and dependent Illiquidity Amihud (2002). The results of the t-statistics test reported are based on robust standard error and ***, **, * display significance levels at 1%, 5% and 10%

(2020) [33] and Agung & Susilawati (2021) [34] where based on abnormal returns, this sector has positive abnormal returns and there is no difference between before and after the COVID-19 pandemic. Furthermore, this study also supports the research of Utomo & Hanggraeni (2021) [35] which states that the Consumer Goods Industry is a sector with a better stock market performance compared to others. In addition, these results also support (Agung & Susilawati, 2021 [34]) Ofeser & Subiyantoro (2021) [36], which according to their research in terms of firm value, there is no significant difference in the Consumer Goods Industry sector. As for the Agriculture sector, the results of this study also support research by Agung & Susilawati (2021) [34] which states from the side of abnormal returns, that the sector shows positive results. Moreover, agricultural

sector saves the economy during the COVID-19 pandemic where gives positive growth during 2020 (Hamid, 2021) [37].

While the result for the Trade, Services & Investment sector are not consistent with the research of Utomo and Hanggraeni (2021) [35] which states that this sector has a negative market performance. Based on abnormal returns, this sector also has negative results (Herwany, 2021) [15] and from an economic perspective this sector is also the sector most affected (Susilawati et al., 2020) [10]. However, in this sector there is a Healthcare sub-sector where according to research by Chebbi et al. (2021) [27], Healthcare is one sector that has better liquidity compared to others. In addition, when viewed from the side of the COVID-19 pandemic, Healthcare should be a sub-sector that will benefit greatly during this pandemic.

Conclusion, Implication, and Limitation

This study intends to see how the COVID-19 pandemic influence stock liquidity listed on the main board index of Indonesia. This study finds that COVID-19 pandemic which is measured by daily growth of total cases and daily growth of total deaths due to COVID-19 give negative impact on stock liquidity listed on the main board of Indonesia. So that, the COVID-19 pandemic has reduced stock liquidity at the company level, this result is consistent with Chebby et al. (2021) [27] research on S&P 500. Furthermore, this study finds differences impact pandemic on stock liquidity across sectors. The sectors most affected are Mining and Finance, while the Consumer Good Industry, Agriculture, and Trade, Services, & Investment sectors have better liquidity compared to the others.

This research contributes to several parties. First, to investors as additional knowledge in making investment decisions, when a crisis occurs, the sector that is able to survive is the sector that meets the basic needs of life. Second, the government needs to provide positive sentiment to the investor. In addition, to maintain liquidity during crisis, the government needs to implement regulations regarding market makers as liquidity providers, which are planned to be applied to trading on the Indonesia Stock Exchange.

For considering as reference in interpreting and for further research, this study has several limitations. First, this study used stock data listed on the main board index with a constituent period of October to November 2021. Second, the measurement of stock liquidity only uses two measures, Spread and Illiquidity Amihud (2002). So, for further research are expanding stock data recorded on the development board or can be seen from other perspectives that can affect stock liquidity during the COVID-19 pandemic, such as government policiesduring COVID-19 or the influence of news about COVID-19 (Table 4).

Table 3. The Effect of CaseGrowth on Stock Liquidity Between Sectors

Variabel	(1)	(2)	(3)	(4)	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
CaseGrowth	0,0083*** (0,0009)	0,0083*** (0,0009)	0,0084*** (0,0009)	0,0083*** (0,0009)	0,0083*** (0,009)	0,0083*** (0,0009)	0,0083*** (0,0009)	0,0083*** (0,0009)	0,0083*** (0,0009)
Intersep dan Kontrol	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Agriculture	-0,0038*** (0,0002)								
Basic Industry and Chemicals		0,0006*** (0,0002)							
Consumer Goods Industry			-0,0046*** (0,0002)						
Finance				0,0025*** (0,0002)					
Infrastructure, Utilities and Transportation					0,0015*** (0,0002)				
Mining						0,0026*** (0,0002)			
Miscellaneous Industry							0,0022*** (0,0002)		
Property, Real Estate and Building Construction								0,0012*** (0,0002)	
Trade, Services & Investment									-0,0024*** (0,0002)
Ukuran Sample	119351	119351	119351	119351	119351	119351	119351	119351	119351
R-Squared	0,1416	0,1402	0,1451	0,1406	0,1410	0,1416	0,1409	0,1405	0,1420

Notes: This table shows the results of the regression model using the LSDV estimation technique for each sector with the data used consisting of 119351 observations which are unbalanced daily data from 345 stocks listed on the main board of the IDX for the period 3 March 2020 to 30 November 2021. The independent variable model is CaseGrowth and the dependent variable is Spread, and include all the control variables. The results of the t-statistics test reported are based on robust standard error and ***, **, * display significance levels at 1%, 5% and 10%

Table 4. The Effect of DeathGrowth on Stock Liquidity Between Sectors

Variabel	(1)	(2)	(3)	(4)	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
DeathGrowth	0,0127*** (0,0019)	0,0127*** (0,0019)	0,0127*** (0,0019)	0,0127*** (0,0019)	0,0127*** (0,0019)	0,0127*** (0,0019)	0,0127*** (0,0019)	0,0127*** (0,0019)	0,0127*** (0,0019)
Intersep dan Kontrol	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya	Ya
Agriculture	-0,0038*** (0,0002)								
Basic Industry and Chemicals		0,0006*** (0,000)							
Consumer Goods Industry			-0,0046*** (0,0002)						
Finance				0,0025*** (0,0002)					
Infrastructure, Utilities and Transportation					0,0015*** (0,0002)				
Mining						0,0026*** (0,0002)			
Miscellaneous Industry							0,0022*** (0,0002)		
Property, Real Estate and Building Construction								0,0012*** (0,0002)	
Trade, Services & Investment									-0,0024*** (0,0002)
Ukuran Sample	119351	119351	119351	119351	119351	119351	119351	119351	119351
R-Squared	0,1423	0,1409	0,1457	0,1426	0,1413	0,1416	0,1416	0,1412	0,1427

Notes: This table shows the results of the regression model using the LSDV estimation technique for each sector with the data used consisting of 119351 observations which are unbalanced daily data from 345 stocks listed on the main board of the IDX for the period 3 March 2020 to 30 November 2021. The independent variable model is CaseGrowth and the dependent variable is Spread, and include all the control variables. The results of the t-statistics test reported are based on robust standard error and ***, **, * display significance levels at 1%, 5% and 10%

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