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The Covid-19, Policy, and Islamic Capital Market in Indonesia

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Abstract

This paper examines the impact of Covid-19 (death and positive cases) on Indonesia's Islamic capital market, proxied by the Jakarta Islamic Index. Covid-19 data in Indonesia, which is proxied by four measures such as the number of new cases (NC), cumulative cases (CC), new deaths (ND), and cumulative deaths (CD). Further, whether any policy from regulators could mitigate its impact, we utilize daily time-series data from January to July and propose the multiple regression model to test its effect with some robustness checks. Our results indicate that Covid-19 leads to a lower price of the Islamic index, and the regulations from the government could reduce its negative impact. The negative impact of Covid-19 could be reduced by policies from the Indonesian government and other authorities like OJK, IDX, and BI. The policy from those regulators is grouped by policy backgrounds such as lockdowns and restrictions, reopening economy like new normal, fiscal, monetary, and macroeconomic, exchange rate, and balance of payments. Therefore, it is pivotal to alleviate Covid-19's drawbacks on the Islamic capital market by providing relevant policies in Indonesia.

Keywords: Covid-19; Policy; Capital Market Indonesia.

INTRODUCTION

This study examines whether the Corona virus (Covid-19) impacts the Islamic stock market in Indonesia. That purpose is based on the fact that Covid-19 seriously impacts many aspects dramatically, including financial markets

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worldwide, even in Indonesia. It is a part of a large family of viruses that can cause diseases ranging from the common cold to more severe illnesses (Yang *et al.*, 2020). Its outbreak was started on December 31, 2019 (Al-Awadhi *et al.*, 2020). Many patients with the symptom were found in Wuhan, Hubei province, China, on January 11, 2020. The first death due to the new Coronavirus was reported in Wuhan, China, on January 13, 2020. The Indonesian President announced the first Covid-19 case in Indonesia on March 2, 2020 (WHO, 2020). According to the International Monetary Fund's (IMF) data 2020, the Covid-19 outbreak had a significant impact since many economic activities were restricted, people were not allowed to leave, and social distancing was carried out. The government and community response to prevention efforts such as school closures, work from home, especially formal sector workers, delays, and cancellations of various public and private events. The termination of several modes of public transportation, prohibition of going home, and slowing down of the economy also occurred.

According to the Indonesian Stock Exchange's data, Covid-19 also hits the Indonesian financial market. There were capital outflow (IDR159.3 trillion), state securities (SBN) IDR143.5 trillion (91%), shares IDR11.8 trillion (7.4%), and corporate bonds IDR6.6 trillion (0.4%). The capital outflows from foreign investors lead to high volatility in exchange rate (IDR/USD) and stock index movement during a crisis. Surprisingly, the Jakarta Islamic Index sharia stock index rose 2.52%. The increase in positive numbers infected by Covid-19 also results in a loss of investor confidence in the market. The Covid-19 outbreak was not anticipated earlier, could have a prolonged impact, and cause a snowball effect on the dollar. Therefore, its impact could be worse than the global financial crisis in 2008. Previous studies also found that Covid-19 influences the composite index and several industrial sectors worldwide (Zhang, Hu, and Ji 2020; Goodell and Huynh 2020). Therefore, we hypothesize that Covid-19 harms the Islamic stock market in Indonesia.

The second purpose of this study is to test whether any policies from the Indonesian government or authorities could reduce their negative impact on the Islamic financial market. Sharif *et al.* (2020) state that the regulation from the government could alleviate Covid-19's impact on the capital market. The Indonesian Financial Services Authority (OJK), President, Indonesian

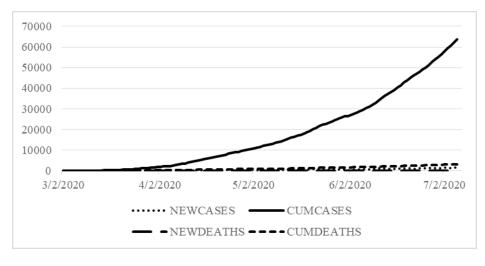


Stock Exchange (IDX), and Central Bank (BI) implement some regulations to overcome Covid-19's impact. On March 31, 2020, President Joko Widodo issued a Government Regulation "PERPPU" to maintain financial system stability from Covid-19's effect. It provides a foundation for government, banking, and financial authorities to take extraordinary steps to ensure public health. The government also implemented fiscal policies to support national economic recoveries such as health care, benefits and social assistance coverage for low-income households, unemployment benefits, tax breaks, capital injections, interest subsidies, interest and loan guarantees, and loan restructuring funds. To reopen the economy, the government announced a "New Normal" to encourage Indonesian people to carry out activities as before but with new behaviors or habits with clean and healthy behaviors. Opening malls, parks, and recreation areas with healthy protocol have been socialized in this phase to revive Indonesia's economic activities. The government also implemented fiscal, monetary, and macroeconomic policies to maintain liquidity. On April 22, 2020, OJK issued five regulations (POJK) support PERPPU No. 1/2020 on Financial System Stability for handling Covid-19. OJK also issued several policies, namely relief and or postponement of credit or leasing payments of up to Rp10 billion, including for MSMEs and informal workers for a maximum of 1 year. BI also issued a monetary stimulus policy through a triple intervention intensity, lowered the mandatory current account ratio for foreign exchange of conventional commercial banks, expanded underlying transactions for foreign investors, and used global and domestic custodian banks for investment activities (IMF, 2020).

On May 11, 2020, there were an additional 979 people, bringing the total number of coronavirus cases in Indonesia to 35,295. Within one day, this drastic improvement shows the ineffectiveness of the government in formulating policies to deal with Covid-19. Even more confusing is that all countries are still handling Covid-19, where the increase in positive numbers increases significantly every day, making investors withdraw dollars in cash. Therefore, this study would provide empirical analysis to examine whether any policy from government or authorities effectively reduces Covid-19's impact on the capital market. Up to the present, July 7, 2020, the Covid-19 climbs sharply with unpredictable endings since the number is significantly increasing daily. The details are in Figure 1 as follows:







Covid-19 in Indonesia

Sources: World Health Organization (WHO)

This figure depicts Covid-19 data in Indonesia, including the number of new cases, cumulative cases, new deaths, and cumulative deaths since the first case occurred on March 2, 2020.

This study offers some distinguish settings compared to previous studies. First, this study offers a deep understanding of the Indonesian context, especially Islamic finance, as a unique market since there is no sign of declining Covid-19 compared to other countries with decline or recovery conditions. The prior studies commonly focused on broader context (cross-country analysis) about the impact of Covid-19 on the capital market by comparing composite, Islamic, and each sector indexes (Ali, Alam, and Rizvi 2020; Haroon and Rizvi 2020). Second, this study analyzes any policy interventions empirically to measure the negative impact of Covid-19 on the capital market. In contrast, other studies implicitly discussed the necessity of those policies (Sharif *et al.*, 2020). Third, this study prefers to explore Covid-19's impact on the stock price index rather than price volatility or return (He *et al.*, 2020; Haroon and Rizvi, 2020).

We used regression analysis, ordinary least squares (OLS), to test the relationship between Covid-19, measured by new cases, cumulative cases, new deaths, and cumulative deaths, on the Islamic stock market in Indonesia (Jakarta



Islamic Index). Further, this study would include any policy to reduce its impact by dummy values from OJK, BI, President, IDX, policy background, reopening economy, fiscal, monetary, and macroeconomic policy, and exchange rate and balance of payments. Daily time-series data show observations from January 1, 2020, to July 7, 2020.

LITERATUR REVIEW

Corona Virus Disease (COVID-19)

At the beginning of 2020, the world was shocked by the occurrence of a severe infection whose cause was unknown. Starting with a Chinese report to the World Health Organization (WHO), there were 44 patients with severe pneumonia in Wuhan City at the end of 2019. Initial suspicions were that this was related to a wet market selling fish, marine animals, and other animals. On January 10, 2020, it was discovered that the cause of the incident was a new coronavirus named the novel Coronavirus (nCoV-19). Not long after, it was reported that many cases occurred not only in China but even extended to other countries in the world, mainly since the transmission of the virus could occur through human-to-human interactions. At the end of January 2020, WHO declared a Global Emergency status for this coronavirus case and named it COVID-19 (Handayani *et al.*, 2020).

The outbreak of COVID-19 has undoubtedly had a tremendous impact, both from the physical, psychological and environmental aspects (Aeni, 2021). The direct impact of COVID-19 occurs on health aspects, such as the high number of positive cases and deaths due to COVID-19. The high number of COVID-19 cases has made the resources owned by the government more concentrated on handling COVID-19, thus hampering health services other than COVID-19. In addition, the decline in health services is also influenced by public skepticism about access to health services.

Apart from the health aspect, COVID-19 impacts almost all aspects of life. What is most noticeable is the impact from the economic aspect. Areas affected by COVID will experience a decline in economic levels. The decline's size will differ in each region, depending on the population and the regulations applied to the region. The economic slowdown occurred due to changes in the distribution



and demand for goods and services due to the policy of restricting community activities that were implemented. As a result of the economic slowdown, it will increase the number of unemployment and poverty. COVID 19 has caused many workers to lose their jobs, and the new workforce has difficulty finding work due to the lack of available job opportunities. Thus, there is a decrease in income which leads to an increase in the poverty rate.

Sharia Capital Market

The Islamic capital market is all activities in the capital market that comply with Islamic principles. The main factors forming the Islamic capital market are the capital market and Islamic principles in the capital market. Activities in the capital market include market participants, market infrastructure, transaction mechanisms, and transacted securities. Thus, a capital market is said to meet Islamic principles if market participants, market mechanisms, market infrastructure, and the securities being traded have met Islamic principles.

The development of the Indonesian Islamic capital market was triggered by market demand which was then made supporting regulations by the government. At the beginning of its development, the time gap between making regulations and issuing sharia investment products on the market was quite long. The first sharia investment product was launched in 1997, the supporting fatwa was issued in 2002, and the Bapepam-LK regulation on the Islamic capital market was issued in 2006.

Islamic principles in the capital market are defined as principles that are the main requirements for the formation of a sharia-compliant capital market. The primary reference sources of Islamic principles in the capital market are the Qur'an, Sunnah and Hadith, Ijma, and Qiyas. Al-Quran is the leading Muslim guide, which contains Allah SWT's words. Sunnah and Hadith are information about all the words and actions of Rasulullah SAW. In comparison, Ijma and Qiyas are forms of the opinion of the scholars. Ijma is the agreement of most scholars against those not mentioned in the Qur'an, Hadith, and Sunnah. At the same time, Qiyas is an analogy made by many scholars for something that does not have an example but has similarities to events during the time of Rasulullah



SAW. Based on research by IOSCO (International Organizations of Securities Commissions) in 2004, the main basic principles of Islam in the capital market consist of the prohibition of Riba, gharar, maysir, and the prohibition of non-halal goods.

We find that Covid-19 has a negative effect on the price of the Islamic stock index. So, the higher number of Covid-19 leads to a lower stock price index of the capital market in Indonesia. The results are consistent when we use some robustness tests. We also find that the number of deaths due to Covid-19 has a more considerable impact than the number of cases. Further, the regulations from the government could reduce its negative impact. Hence, it is pivotal to alleviate Covid-19's drawbacks on the Islamic capital market by providing relevant policies in Indonesia.

This paper has some contributions as follows. To the literature, this study would be beneficial to enhance the Islamic capital market literature by providing many proxies for Covid-19 like new cases, cumulative cases, new deaths, and cumulative deaths. For the policy makers, this study sheds light on whether or not policies effectively diminish Covid-19's impact.

RESEARCH METHOD

Corona Virus Disease (COVID-19)

At the beginning of 2020, the world was shocked by the occurrence of a severe infection whose cause was unknown. Starting with a Chinese report to the World Health Organization (WHO), there were 44 patients with severe pneumonia in Wuhan City at the end of 2019. Initial suspicions were that this was related to a wet market selling fish, marine animals, and other animals. On January 10, 2020, it was discovered that the cause of the incident was a new coronavirus named the novel Coronavirus (nCoV-19). Not long after, it was reported that many cases occurred not only in China but even extended to other countries in the world, especially since it was proven that the transmission of the virus could occur through human-to-human interactions. At the end of January 2020, WHO declared a Global Emergency status for this coronavirus case and named it COVID-19 (Handayani *et al.*, 2020).



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We find that Covid-19 has a negative effect on the price of the Islamic stock index. So, the higher number of Covid-19 leads to a lower stock price index of the capital market in Indonesia. The results are consistent when we use some robustness tests. We also find that the number of deaths due to Covid-19 has a more considerable impact than the number of cases. Further, the regulations from the government could reduce its negative impact. Hence, it is pivotal to alleviate Covid-19's drawbacks on the Islamic capital market by providing relevant policies in Indonesia.

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RESEARCH METHOD

This paper relies on Covid-19 data in Indonesia, which is proxied by four measures such as the number of new cases (NC), cumulative cases (CC), new deaths (ND), and cumulative deaths (CD) absolutely per day starting from March 2, 2020, to July 7, 2020. Those data from World Health Organization (WHO) open database. To balance the dataset observations with other variables, we put 0 values starting from January 1, 2020, in each of the proxies. Next, the Islamic capital market time-series data are obtained from DataStream (Thomson Reuters Eikon), including Jakarta Islamic index (JI). It is an index that contains all Islamic stocks in Indonesia. Those data are daily time series composed from the prior Covid-19 period (January 1, 2020) up to the current Covid-19 period (July 7, 2020) period.

The policy measures use several Indonesian regulators, entailing the Indonesian Financial Service Authority or OJK (OJ). Then, the President, ministries, or other local governments (PR) declared some regulations or interventions to tackle Covid-19. The Indonesia Stock Exchange or IDX (ID) also announced some interventions in the capital market to diminish the negative impact of Covid-19 on the Indonesian Capital Market. Those data are from each of the regulators' official Website manually by putting a dummy one if there is any regulations or intervention on a particular day during the Covid-19 period and 0 for otherwise.

The alternative measures for any Indonesian policy related to Corona disease also published policy at the International Monetary Fund (IMF)'s Website, including a). policy background (PO) such as lockdown, banning domestic and international air and sea travels, screening at ports of entry, school closures, and or restrictions on public events; further banning Indonesian's traditional annual exodus for Muslim holidays to curb the spread of Covid-10 virus from Jakarta and other high-risk provinces b). they were reopening economies such as easing restrictions "new normal," opening mall, park, and recreation areas c). fiscal packages to support national economic recovery like health care, benefits, and coverage of social aids for low-income households, unemployment benefits, tax relief, tax reduction, capital injection, interest subsidies, credit guarantees, and loan restructuring funds d). monetary and macroeconomic policies like reducing policy rate, other measures to ease liquidity, etc. e). exchange rate and balance of



payments such as spot and domestic non-deliverable foreign exchange market, government bond, and lift restrictions on imports and exports. The details of those variables, including the symbols, definitions, sources, and relevant citations, are in Table 1 below:

Table 1.

Data Variables

VARIABLES	DEFINITIONS	SOURCES	CITATIONS
NEW CASES	The number of new cases of Covid-19 in Indonesia daily	www. who. int	(Ali, Alam, and Rizvi 2020)
CUMULATIVE CASES	The number of cumulative cases of positive Covid-19 per day in Indonesia	<u>www. who. int</u>	(Al-Awadhi <i>et</i> <i>al.,</i> 2020)
NEW DEATHS	The number of new deaths Covid-19 in Indonesia daily	www. who. int	(Haroon and Rizvi, 2020)
CUMULATIVE DEATHS	The number of cumulative deaths due to Covid-19 per day in Indonesia	www.who.int	(Ashraf 2020)
JIM	The price of the stock index from the Jakarta Islamic Index, which is all Islamic stocks per day in Rupiah	Datastream	(Haroon and Rizvi, 2020)
OK	Dummy 1 for any interventions from Indonesia Financial Service Authority (OJK) and 0 for otherwise	www.ok.go.id	(Goodell 2020)



PRESIDENT	Dummy 1 for any regulations from President, Ministries, and other local governments and 0 for otherwise	www.covid19.go.id	(Sharif, Aloui, and Yarovaya 2020)
IDX	Dummy 1 if there is any regulation from the Indonesian Stock Exchange (IDX) and 0 for otherwise	www.idx.co.id	(Liu et al., 2020)
EXCITE	The exchange rate from the United States Dollar (USD) to local currency (IDR) in Rupiah	Datastream	(Haroon and Rizvi, 2020)
POLICY	Dummy 1 if there is any policy from the Indonesian government such as lockdown, mandatory mask, etc., and 0 for otherwise	www.imf.org	(Wagner 2020)
REOPENING	Dummy 1 if there is any reopening economy regulation from the government such as relaxations, etc., and 0 for otherwise	www.imf.org	(He <i>et al.,</i> 2020)
FISCAL	Dummy 1 if there is any regulation related to fiscal packages (boost testing, tax relief, capital injections, etc., and 0 for otherwise	www.imf.org	(Ashraf 2020)



MONETARY	Dummy 1 if there is any monetary and macroeconomic policy from central banks BI rate, etc., and 0 for otherwise	www.imf.org	(Zhang, Hu, and Ji 2020)
EXP	Dummy 1 if there is an exchange rate and balance of payment policy from central banks such as spot and domestic non- deliverable foreign exchange markets, etc., and 0 for otherwise	www.imf.org	(Al-Awadhi <i>et</i> <i>al.,</i> 2020)

This table provides data details for each of the variables in this research, including the symbols, definitions, sources, and relevant citations. The data are daily from January 1, 2020, to July 7, 2020.

To test the impact of Covid-19 on the Islamic capital market in Indonesia as the first hypothesis, we examine the direct effect of Covid-19, proxied by four measures (the number of new cases, cumulative cases, new deaths, and cumulative deaths), on Jakarta Islamic index by including exchange rate (Rupiah to USD) as a control variable since it could influence stock price index. We argue that Covid-19 has a negative impact on the Islamic stock market, so the higher number of Covid-19s leads to a lower price of that index. We adopt a prior study (Sharif, Aloui, and Yarovaya 2020) that examines the impact of Covid-19 (number of cases) on the stock index price (Dow Jones 30). In this study. We offer Covid-19 measures from the number of cases (cumulative cases) and the new cases, new deaths, and cumulative cases. We utilize multiple regressions (ordinary least squares estimator or OLS) to examine the relationship since it is the simplest model to examine the effect of an independent variable on the dependent variable. Our composed model is as follows:



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*JII*_t denotes the index of Jakarta Islamic at time t (daily), while *COVID19*_t is proxied by new cases (NC), cumulative cases (CC), new deaths (ND), and cumulative deaths (CD) at the day t. *EXRATE*_t is the exchange rate from local currency (Rupiah) to United States Dollar (USD). ε_t is the standard errors or residuals.

To capture the impact of Covid-19 on that Islamic stock index price as the additional analysis for robustness. We run Equation (1) with the Islamic stock index price. Further, in this study, we provide a price of the stock index rather than the return or volatility of the stock index, which primarily prior studies focus on (He *et al.*, 2020; Haroon and Rizvi, 2020). This study also offers a deep understanding by focusing on one capital market (Indonesia) to explore a deeper market rather than a broader context or cross-country analysis like previous research (Ali, Alam, and Rizvi 2020).

In addition, our second hypothesis is whether any policy from the Indonesian government or other regulators could reduce the negative impact of Covid-19 on the Islamic stock market in Indonesia. We argue that any regulations or interventions from the regulators would diminish its impact. We modify the regression model from previous studies (Sharif, Aloui, and Yarovaya 2020; Zhang, Hu, and Ji 2020) by accommodating policy with dummy values. So, we include various kinds of policies into the regression model from Equation (1) to compose Equation (2) as follows:

P olicy denotes dummy one values if there are any kinds of policies from various regulators such as the Financial Service Authority or OJK, President, Ministries, or other local governments, Indonesian Stock Exchange (IDX), policy background, reopening economy, fiscal, monetary and macroeconomic, and exchange rate and balance of payments. We will run all that proxy in Equation (2) like Equation (1) for Islamic stock index price in Indonesia and covid-19.



RESULT AND DISCUSSION

Before commencing the regression analysis, we conduct a preliminary data test. In Table 2, we provide the descriptive statistics of the variables from January 1, 2020, to July 7, 2020. The results depict that the mean values of new cases, cumulative cases, new death, and cumulative deaths are 339, 12,047, 16, and 713 people. The average stock price index for Jakarta Islamic Index is IDR559.50. Further, the exchange rate is IDR14,560.10 on average. Overall, we present the details as follows:

VARIABLES	OBS.	MEAN	STD. DEV.	MIN	MAX
NEW CASES	188.00	339.09	421.07	0.00	1,624.00
CUMULATIVE CASES	188.00	12,047.66	17,110.56	0.00	63,749.00
NEW DEATHS	188.00	16.86	19.52	0.00	82.00
CUMULATIVE DEATHS	188.00	713.73	913.83	0.00	3,171.00
JIM	133.00	559.50	77.63	393.86	699.45
ОК	189.00	0.10	0.30	0.00	1.00
PRESIDENT	189.00	0.19	0.39	0.00	1.00
IDX	189.00	0.11	0.31	0.00	1.00
EXCITE	132.00	14,560.10	857.21	13,572.50	16,575.00
POLICY	182.00	0.16	0.37	0.00	1.00
REOPENING	182.00	0.14	0.35	0.00	1.00
FISCAL	182.00	0.50	0.50	0.00	1.00
MONETARY	182.00	0.32	0.46	0.00	1.00
EXP	182.00	0.66	0.47	0.00	1.00

Table 2.Descriptive Statistics

This table depicts the descriptive statistics for all variables, including the number of observations, mean value, standard deviation, minimum, and



maximum values. The descriptive statistics result explained that the minimum and maximum values of New Cases are 0.00 and 1,628, the mean value is 339.09, and the standard deviation value is 421.07. The standard deviation value of Cumulative Cases is 17,110.56, the maximum value 63,749, the minimum value is 0.00, and 12,047.66 for the mean value. The standard deviation value for New Deaths is 19.52, the maximum value 82.00, the minimum value is 0.00, and 16.86 for the mean value. The standard deviation for cumulative deaths is 913.83, the maximum value 3,171, the minimum value 0.00, and 713.73 for the mean value. The standard deviation value JII is 77.63, the maximum value 699.45, the minimum value 393.86, and 559.50 for the mean. The standard deviation value OJK is 0.30, the maximum value 1.00, the minimum value 0.00, and 0.10 for the mean value. The standard deviation value Exrate is 857.21, the maximum value 16,575, the minimum value 13,572.50, and 14,560.10 for the mean. The standard deviation value for policy is 0.37, the maximum value 1.00, the minimum value 0.00, and 0.16 for the mean value. The standard deviation value for Reopening is 0.35, the maximum value 1.00, the minimum value 0.00, and 0.14 for the mean value. Fiscal's standard deviation value is 0.50, the maximum value 1.00, the minimum value 0.00, and 0.50 for the mean value. The standard deviation value Monetary is 0.46, the maximum value 1.00, the minimum value 0.00, and 0.32 for the mean value. The standard deviation value Exbop is 0.46, the maximum value 1.00, the minimum value 0.00, and 0.66 for the mean value.

We also examine the coefficient correlation among variables using a pairwise correlation test to ensure that one variable did not correlate highly with other variables. If the correlation between two variables is high, we need to examine them in different model estimations separately to avoid multicollinearity. Table 3 depicts that new cases have a high correlation coefficient with cumulative cases (0.96), new deaths (0.87), and cumulative deaths (0.97). Those variables are highly correlated since they are the same proxies to measure Covid-19. We need to separate them into different model estimations. Therefore, our models would provide estimations results with no multicollinearity. The details are as follows:



COEFFICIENTS	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) NEW CASES	1.00													
(2) CUMULATIVE CASES	0.96	1.00												
(3) NEW DEATHS	0.87	0.82	1.00											
(4) CUMULATIVE DEATHS	0.97	0.99	0.84	1.00										
(5) JIM	-0.39	-0.29	-0.46	-0.34	1.00									
(6) OK	0.11	0.13	0.17	0.15	-0.22	-0.18								
(7) PRESIDENT	0.12	0.09	0.16	0.13	-0.44	-0.36	1.00							
(8) IDX	-0.17	-0.18	-0.17	-0.19	-0.31	-0.04	0.05	1.00						
(9) EXCITE	0.10	-0.03	0.26	0.02	-0.85	-0.62	0.46	0.24	1.00					
(10) POLICY	-0.29	-0.28	-0.26	-0.30	-0.40	-0.04	0.08	0.61	0.32	0.30				
(11) REOPENING	0.81	0.85	0.65	0.81	-0.13	-0.50	0.02	-0.14	-0.17	0.01	1.00			
(12) FISCAL	0.81	0.72	0.80	0.78	-0.54	-0.83	0.33	-0.25	0.44	-0.29	0.44	1.00		
(13) MONETARY	0.39	0.45	0.31	0.41	-0.43	-0.44	0.05	0.38	0.12	0.18	0.55	0.06	1.00	
(14) EXBOP	0.59	0.51	0.61	0.55	-0.86	-0.87	0.39	0.22	0.69	-0.05	0.31	0.70	0.57	1.00

Table 3.Correlation Testing

This table provides the correlation test among variables to predict whether one variable correlates highly with other variables. It is necessary to separate the variable with high correlation to avoid multicollinearity.

We present our regression analysis results in Table 4. Panel A depicts that all proxies of Covid-19 (new cases, cumulative cases, new deaths, and cumulative deaths) have a negative relationship significantly to Indonesia's Islamic capital market index without policies or interventions. These findings confirm prior studies from those who find that Covid-19 negatively impacts the financial markets since it creates market shocks and negative sentiment for investors (Zhang, Hu, and Ji 2020; Goodell and Huynh 2020). New deaths have the largest coefficient compared to the number of cases. So, it is necessary to tackle the issue of the new deaths. New cases also have a larger impact rather than cumulative cases. The result shows that the value of New Cases (-0.06), the Cumulative cases (-0.00), the value of New Deaths (-1.20), and the Cumulative death (-0.03) of the variables above explained that other variables influence the average effect each variable is 80% and 20%.

Panel B overall provides a lower negative coefficient of Covid-19 on the Indonesian Islamic index with policies or interventions. These results indicate



that the policy of government and authorities could lower the negative impact of Covid-19 on the Islamic capital market in Indonesia. The results are consistent with a previous study that finds that any government policy could minimize the negative impact of Covid-19 on the capital market since it would maintain stock price (Sharif, Aloui, and Yarovaya 2020). The policies such as President, IDX, and policy background result from a negative coefficient on the stock price index. Negative relationships are seen in the falling economy, one of which is reflected in the capital market in free fall.

The President of Indonesia, "Joko Widodo," issued a regulation "PERPPU" to maintain financial system stability so that government, banking, and financial authorities can ensure public health. The government also implements fiscal policies to support the national economy to restore social activities such as social assistance, care and health for low-income people, capital injections, tax, interest subsidies, and loans—the guarantees and restructuring fund. To reopen the economy, the governance announced a "New Normal" to encourage Indonesia People to carry out activities as before but with new habits of clean and healthy living behavior. In this phase, the opening of the mall, parks, and recreation areas with healthy protocols have been socialized to revive Indonesia's economic activities. The details of Table 4 are as follows:

Table 4.

	PANEL A. Y=ISLAMIC STOCK MARKET (JII) X=COVID-19				
			Μ		
VARIABLES	т		JIM		
	JI		JIM		
			JIM		
NEW CASES	-0.06***				
	(0.00)				
CUMULATIVE CASES		-0.00***			

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		(0.00)				
NEW DEATHS			-1.20***			
			(0.17)			
CUMULATIVE DEATHS				-0.03***		
				(0.00)		
EXRATE	-0.07***	-0.07***	-0.07***	-0.07***		
	(0.00)	(0.00)	(0.00)	(0.00)		
CONSTANT	1,650.91***	1,701.15***	1,593.25***	1,681.70***		
	(51.53)	(50.70)	(54.86)	(49.87)		
OBSERVATIONS	132.00	132.00	132.00	132.00		
R-SQUARED	0.79	0.80	0.77	0.81		
	PANEL		C STOCK MAI			
VARIABLES	X=COVID-19 AND POLICY					
	JII	JII	JII	JII		
NEW CASES	-0.05***					
	(0.01)					
CUMULATIVE CASES		-0.00***				
CASES		(0.00)				
NEW DEATHS			-0.47*			
			(0.27)			
CUMULATIVE			(*****)	-0.03***		
DEATHS						
OK	-10.28	-9.03	-9.45	(0.01) -8.48		
	(6.80)	(6.79)	(6.97)	(6.67)		
PRESIDENT	-4.70	-3.01	-2.83	-2.80		
EV.	(6.82)	(6.72)	(6.95)	(6.58)		
IDX	-9.85	-8.36 (7.01)	-11.90	-7.14 (7.70)		
POLICY	(7.88) 4.08	(7.91) 6.35	(8.05) 10.43	(7.79) -0.06		
	(28.07)	(27.93)	(28.60)	(27.56)		
REOPENING	19.05	9.38	-3.20	9.83		
	(18.65)	(16.84)	(16.55)	(16.06)		
MONETARY	-14.84	6.70	-12.71	10.69		
	(15.05)	(16.08)	(15.38)	(15.81)		



EXBOP	-66.14*	-89.71***	-80.48**	-83.13**
	(33.82)	(32.99)	(34.07)	(32.40)
FISCAL	26.51	48.44	22.00	59.25*
	(31.40)	(32.83)	(32.10)	(32.60)
EXRATE	-0.05***	-0.05***	-0.04***	-0.05***
	(0.00)	(0.00)	(0.00)	(0.00)
CONSTANT	1,371.18***	1,404.01***	1,312.75***	1,448.53***
	(71.90)	(75.23)	(70.86)	(76.81)
OBSERVATIONS	129.00	129.00	129.00	129.00
R-SQUARED	0.88	0.88	0.88	0.89

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This table provides time series regression analysis using ordinary least squares (OLS). Panel A consists of Covid-19 proxied by new cases, cumulative cases, new deaths, and cumulative deaths, controlled by the exchange rate, as independent variables and the Indonesian stock market proxied by Jakarta Islamic Index. While Panel B consists of those variables plus policy from Financial Service Authority (OJK), President, Indonesian Stock Exchange (IDX), any policy, reopening economy, fiscal, monetary, and macroeconomic, and exchange rate and balance of payments (EXBOP). Significant levels are * for 10% (p<0.10), ** for 5% (p<0.05), and *** for 1% (p<0.01). Standard errors are in parentheses.

CONCLUSION

In conclusion, this study finds that Covid-19 has a negative impact on the Islamic capital market in Indonesia. They are four indicators of Covid-19: new cases, cumulative cases, new deaths, and cumulative deaths. The new death rate is the most considerable indicator with the largest negative impact. The negative impact of Covid-19 could be reduced by policies from the Indonesian government and other authorities like OJK, IDX, and BI. The policy from those regulators is grouped by policy backgrounds such as lockdowns and restrictions, reopening economy like new regular, fiscal, monetary, and macroeconomic, exchange rate, and balance of payments. All of those policies are relevant to reducing Covid-19's impact on the Islamic capital market in Indonesia, even though the number of Covid-19 is still increasing sharply.



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The implications of this study are as follows. First, the government should pay more attention to measuring the new death cases due to Covid-19. Second, the crucial sector that should be maintained from Covid-19's effect is the financial sector. Third, the regulators should keep improving their policies which have been proven could reduce the Covid-19 numbers, but it is still difficult to decrease the number of Covid-19, especially the new cases per day.

This paper has some limitations, such as using ordinary least squares with no comparison to other models such generalized method of moments (GMM) to address the endogeneity issue. In addition, the number of healthy people from Covid-19 is not included in this paper. Further, Indonesia's Islamic stock price index could be developed by comparing the return and price volatility.



REFERENCES

- Abdalloh. 2018. "Pasar Modal Syariah." PT Elex Media Komputindo: Jakarta.
- Aeni. 2021. "Pandemi Covid-19: Dampak Kesehatan, Ekonomi dan Sosial." *Jurnal Litbang: Media Informasi Penelitian, Pengembangan dan IPTEK* 17 (1): 17-34.
- Al-Awadhi, Abdullah M., Khaled Alsaifi, Ahmad Al-Awadhi, and Salah Alhammadi. 2020. "Death and Contagious Infectious Diseases: Impact of the COVID-19 Virus on Stock Market Returns." *Journal of Behavioral and Experimental Finance* 27: 100326. https://doi.org/10.1016/j. jbef.2020.100326.
- Ali, Mohsin, Nafis Alam, and Syed Aun R. Rizvi. 2020. "Coronavirus (COVID-19)
 An Epidemic or Pandemic for Financial Markets." *Journal of Behavioral* and Experimental Finance 27: 100341. https://doi.org/10.1016/j. jbef.2020.100341.
- Ashraf, Badar Nadeem. 2020. "Stock Markets' Reaction to COVID-19: Cases or Fatalities?" Research in International Business and Finance 54: 101249. https://doi.org/10.1016/j.ribaf.2020.101249.
- Goodell, John W. 2020. "COVID-19 and Finance: Agendas for Future Research." *Finance Research Letters*, 101512. https://doi.org/10.1016/j. frl.2020.101512.
- Goodell, John W., and Toan Luu Duc Huynh. 2020. "Did Congress Trade Ahead? Considering the Reaction of US Industries to COVID-19." *Finance Research Letters*, 101578. https://doi.org/10.1016/j.frl.2020.101578.
- Handayani, Hadi, Isbaniah, Burhan and Agustin. 2020. "Penyakit Virus Corona 2019." Jurnal Respirologi Indonesia 40 (2): 119.
- Haroon, Omair, and Syed Aun R. Rizvi. 2020. "COVID-19: Media Coverage and Financial Markets Behavior – A Sectoral Inquiry." *Journal of Behavioral* and Experimental Finance 27: 100343. https://doi.org/10.1016/j. jbef.2020.100343.
- He, Qing, Junyi Liu, Sizhu Wang, and Jishuang Yu. 2020. "The Impact of COVID-19 on Stock Markets." *Economic and Political Studies* 0 (0): 1–14. https://doi.org/10.1080/20954816.2020.1757570.



- Liu, Haiyue, Aqsa Manzoor, Cangyu Wang, Lei Zhang, and Zaira Manzoor. 2020. "The COVID-19 Outbreak and Affected Countries Stock Markets Response." International Journal of Environmental Research and Public Health 17 (8): 1–19. https://doi.org/10.3390/ijerph17082800.
- Sharif, Arshian, Chaker Aloui, and Larisa Yarovaya. 2020. "COVID-19 Pandemic, Oil Prices, Stock Market, Geopolitical Risk and Policy Uncertainty Nexus in the US Economy: Fresh Evidence from the Wavelet-Based Approach." International Review of Financial Analysis 70: 101496. https:// doi.org/10.1016/j.irfa.2020.101496.
- Wagner, Alexander F. 2020. "What the Stock Market Tells Us about the Post-COVID-19 World." *Nature Human Behaviour* 4 (5): 440. https://doi. org/10.1038/s41562-020-0869-y.
- Yang, Yongshi, Fujun Peng, Runsheng Wang, Kai Guan, Taijiao Jiang, Guogang Xu, Jinlyu Sun, and Christopher Chang. 2020. "The Deadly Coronaviruses: The 2003 SARS Pandemic and the 2020 Novel Coronavirus Epidemic in China." *Journal of Autoimmunity* 109 (March): 102434. https://doi. org/10.1016/j.jaut.2020.102434.
- Zhang, Dayong, Min Hu, and Qiang Ji. 2020. "Financial Markets under the Global Pandemic of COVID-19." *Finance Research Letters*, 101528. https://doi. org/10.1016/j.frl.2020.101528.

