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# Islamic banking and capital market performance in Indonesia, the lesson from pandemic Covid-19

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# ARTICLE INFO ABSTRACT

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Keywords: ARDL; covid-19; islamic banking; islamic stock market; performance; The Covid-19 pandemic caused panic on global financial markets and had an impact on a global recession. This research will examine the impact of Pandemic Covid-19 on the Performance of the Islamic Banking and Stock Market in Indonesia. The purpose of this study is to determine the different impacts of Islamic banking and the Islamic stock market in the long and short-term using the Autoregressive Distributed Lag (ARDL) method and using monthly data from January 2017 to December 2022. The results show that new cases of the Covid-19 pandemic actually have a positive impact on Islamic banking performance but not for stock market. Our findings have counter-estimations from several previous studies, therefore it may provide a new hypothesis of the performance of Islamic banking in Indonesia.

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Pandemi Covid-19 menyebabkan kepanikan di pasar keuangan global dan memberikan dampak pada resisi global. Pada penelitian ini akan mengkaji dampak Pandmi Covid-19 terhadap Kinerja Perbankan dan Pasar Saham Syariah di Indonesia. Tujuan dari penelitian ini adalah untuk mengetahui dampak yang berbeda antara perbankan syariah dan pasar saham syariah pada jangka panjang dan jangka pendek dengan metode ARDL dan mengunakan data bulanan dari januari 2017 sampai desember 2022. Hasil analisis menunjukkan bahwa kasus baru pandemi Covid-19 justru memiliki pengaruh positif terhadap kinerja perbankan syariah, tetapi tidak kepada Indeks pasar modal syariah. Temuan kami memiliki kontra estimasi dari beberapa penelitian sebelumnya sehingga memberikan gambaran baru pada kinerja perbankan syariah di Indonesia.

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# 1. Introduciton

The pandemic of Covid-19 disrupt people's access to essential services, food and livelihoods, affect companies through supply disruptions—linked to workforce reductions, shortages of semi-finished goods and lower productivity—and demand shocks resulting in a slowdown in health, education, skills and productivity (World Bank, 2020). During the Covid-19 pandemic, economic actors had negative expectations, which in turn made them save most of their economic resources in an effort to reduce the economic impact (Fang, 2021; Hassan et al., 2022; Silva & de Araújo, 2023). Covid-19 has affected the economy in the Asian region mainly through three channels: (1) declining exports, reflecting depressed global economic activity; (2) *a decrease in inbound-related demand*, due to restrictions on international travel; and (3) reduced domestic private consumption, caused by social distancing policies. In general, the decline in global and domestic demand has a negative impact on company profits, wages and investment (Haruhiko, 2020).

In the financial sector, Covid-19 leads to the importance of individual and household financial resilience. The pandemic affected many financial consumers in terms of their access to and use of personal financial services as a result of losing job, reduced income, or reduced access to physical services. Existing bills and payments have become unmanageable for many consumers. Access to credit becomes difficult and limits the ability to determine needs due to decreased income or increased essential expenditure (Monticone, 2022).Central banks and governments enforce a variety of policy interventions to mitigate the sharp tightening of financial conditions in the short term, supporting the flow of credit to companies, either by direct intervention in credit markets (e.g. government-sponsored credit and liability guarantees), or by enlarging bank constraints on the use of capital buffers (Demirgüç-Kunt et al., 2021).

In responding to the impact of Covid-19 on the financial sector in Indonesia, policies adopted by the financial authorities are forward looking and countercyclical to maintain financial system stability through restructuring programs for MSMEs and corporations, as well as other initiatives to maintain the financing intermediary function (Bank Indonesia, 2020). It was recorded that outstanding credit restructuring due to Covid-19 amounted to IDR 596.25 trillion which was given to 3.13 million debtors. This figure continues to show a decline, where the highest outstanding amount ever reached IDR 830.3 trillion in October 2020 (OJK, 2022). The performance of the capital market in Indonesia also experienced a decline during the pandemic. Early 2020 to 20 March of 2020, in other words only three months, the JCI fell from the 6,300 level to 3,900. the volume of transaction also slumped. If in 2019 the transaction volume was 36,534,971,048, in 2020 it decreased to 27,495,947,445. This reflects in large part the behavior of *wait and see* investors. Investors are worried about future market conditions (Pratama, 2022).

In this study, we will examine the impact of the Covid-19 pandemic on the performance of Islamic banking and capital markets. According to Bank Indonesia (2014), the Islamic capital market in Indonesia has developed into the Most Advanced Islamic Retail Stock Exchange in the world, while Islamic banking has become the biggest retail Islamic banking in

the World. Other variables included in the research model are Non-performance Loan/Finance (NPL or NPF) as a form of financial risk and inflation as a risk of increasing commodity prices. Therefore, in the manner of this empirical research is expected to provide new insights into the performance of Islamic banking and stock markets in Indonesia in response to the number of new cases of Covid-19 and Community Activities Restrictions Enforcement policy against previous research.

Several previous studies have supported the construction of this research, such as (Shabir et al., 2023) The findings show that the Covid-19 outbreak has significantly reduced bank performance and stability in 2073 banks in 106 countries. (Fajri et al., 2022) found that the Covid Pandemic as measured by *dummy variables* and NPLs had a negative effect on Islamic Banking Performance in Indonesia and was confirmed by (Le et al., 2022) in other studies in 24 countries. (Mateev et al., 2024) studied the impact of Covid-19 using dummy measurements on 225 banks (Islamic banking and conventional) in 18 MENA countries and showed the same results, similar things were also confirmed by the findings of (Mugableh et al., 2023) on 15 conventional and Islamic banking. Covid-19 is having an impact on the economy and raising concerns over the accumulation of non-performing loans (NPLs) on banks' balance sheets. This has the potential to affect the ability of banks to extend credit and support economic recovery (OJK, 2022). Consistently high NPLs limit banks' profitability, tie up their capital when provisions increase, undermine the health of their balance sheets, and limit their capacity to lend(Cicchiello et al., 2022; Park & Shin, 2021). (Elekdag et al., 2020) found that NPL has a negative effect on banking profitability and stability.

On the stock market, (Bai et al, 2023) who examined the impact of the Covid-19 pandemic on financial markets in the world, the results showed that the intensification of the epidemic had a negative impact on the stock market, but financial market sentiment increased thereby increasing stock market returns, even during the worst pandemic, this is in line with (Balboula & Metawea, 2021) on the stock market in Egypt. (Basuony et al, 2022) found mixed responses, but the main conclusion is that the stock market has a positive response to good news from Covid and a negative response to bad news. (Kamal & Wohar, 2023) on the capital market in the UK, results show that daily cases of covid-19 have a significant negative effect on stock returns while daily deaths due to Covid-19 have a significant positive impact. (Nomran & Haron, 2021) found that an increase in Covid-19 cases had a negative effect on conventional and Islamic stock price indices. (Waheed et al., 2020) with a scenario analysis of increasing covid had a positive influence on the performance of the stock market in Pakistan.

Based on the above studies, it is possible that the Covid-19 pandemic has had a negative impact on banking performance, and has effect on stock market performance. This is interesting and will be studied in this study by using monthly time series data using the ARDL method to obtain long-term and short-term estimates. This paper proceeds as follows. In Part 2, we detail our data and methodology. Part 3 reports the results and examines robustness, while Part 4 concludes the paper.

## 2. Research Method

# 2.1. Data and Variable Description

This study will use monthly data which includes data prior to and during Covid 19 from January 2017 to December 2022 with a total of 72 observations. In principle, Islamic banking performance can be measured using ROA, and performance in the capital market can be measured by the price index using the Heikin-Ashi (HC) formula:

$$HC = \frac{(Open + Close + High + Low)}{4}$$
(1)

In addition, several control variables are included in the equation, namely non-performing loans (NPF) which can be used as indicators of financial fragility because related to risks managed by banks. Inflation described as a real and market indicator should be added as it complements the stability of prices. Data on monthly Covid-19 cases is on average a testing variable as an indicator of the level of Covid-19 in Indonesia, several variables refer to research by (Bai et al, 2023) and (Rahmayani & Oktavilia, 2021). This research also adds the PPKM policy variable as a control over the spread of Covid-19 with the dummy variable 1 is month of occurrence and 0 otherwise (1 is start from January 2021). Summary and data sources are shown in Table 1 below.

Variables	Note	Measure	Value	Sources
ROAS	ROA of Islamic Banking	Profits Average Assets	%	OJK
ROAC	ROA of Conventional Banking	Profits Average Assets	%	OJK
ISSI	Indonesia Islamic Stock Index	НС	Point	Investing.com
IHSG	Indonesia Stock Composite Index	НС	Pont	Investing.com
INF	The Consumer Price Index (CPI)	CPI (yoy)	%	Bank Indonesia
NPF	Non Perfoming Financing (Net)	NPF Total Financing	%	OJK
COVID	Average Montly Covid New Case	Monthly New Case of Covid Total Day	Case	WHO
РККМ	Community Activities Restrictions Enforcement	dummy variable 1 is month of occurrence and 0 otherwise	Dummy	

Table 1. Data description.

#### 2.2. Research Method

The ARDL analysis model is used to explore how the performance of Islamic banking (ROAS) and the Islamic Stock Price Index (ISSI) respond to new cases caused by Covid-19 by considering economic conditions and banking risks. This approach makes it possible to determine the impact of Covid-19 (COVID), Indonesia Community Activities Restrictions Enforcement (PKKM), inflation (INF) and banking risk (NPL) on the performance of Islamic

banking and capital markets in the short and long term. ROAC (Return of Assets from Conventional Bank) as a control over ROAS, and IHSG as a control over ISSI to determine the impact of market substitution. This study presents two models of banking performance and Islamic capital market performance models, in the Islamic Banking Performance Model, the ISSI variable will be included, and vice versa, in the ISSI model, the Bank Performance variable will be included, as an optional derivative indicator for investors in the Islamic financial market.

$$ROAS = f(ISSI, ROAC, INF, NPL, COVID, PKKM)$$
(2)  

$$ISSI = f(IHSG, ROAS, INF, NPF, COVID, PKKM)$$
(3)

The ARDL model used a linear transformation to integrate short-term adjustments into long-run equilibrium, using an *Error Correction Model* (ECM). Based on the equation above, the error correction representation used to analyze long-term and short-term dynamic events in this study is:

Islamic banking performance Models Model 1

$$\Delta \text{ROAS}_{t} = \beta_{0} + \beta_{1} \text{ROAS}_{t-1} + \beta_{2} \text{LnISSI}_{t-1} + \beta_{3} \text{ROAC}_{t-1} + \beta_{4} \text{INF}_{t-1} + \beta_{5} \text{NPL}_{t-1}$$

$$+ \sum_{i=1}^{n} \theta_{1} \Delta \text{ROAS}_{t-1} + \sum_{i=1}^{n} \theta_{2} \Delta \text{LnISSI}_{t-1} + \sum_{i=1}^{n} \theta_{3} \Delta \text{ROAC}_{t-1}$$

$$+ \sum_{i=1}^{n} \theta_{4} \Delta \text{INF}_{t-1} + \sum_{i=1}^{n} \theta_{5} \Delta \text{NPL}_{t-1} + \varepsilon_{t}$$

$$(2.a.)$$

Model 2  

$$\Delta ROAS_{t} = \beta_{0} + \beta_{1}ROAS_{t-1} + \beta_{2}LnISSI_{t-1} + \beta_{3}ROAC_{t-1} + \beta_{4}INF_{t-1} + \beta_{5}NPL_{t-1} + \beta_{6}LnCOVID_{t-1} + \sum_{i=1}^{n} \theta_{1}\Delta ROAS_{t-1} + \sum_{i=1}^{n} \theta_{2}\Delta LnISSI_{t-1} + \sum_{i=1}^{n} \theta_{3}\Delta ROAC_{t-1} + \sum_{i=1}^{n} \theta_{4}\Delta INF_{t-1} + \sum_{i=1}^{n} \theta_{5}\Delta NPL_{t-1} + \sum_{i=1}^{n} \theta_{6}\Delta LnCOVID_{t-1} + \varepsilon_{t}$$
(2.b.)

Islamic Capital Market Performance Models Model 1

$$\Delta \text{LnISSI}_{t} = \beta_{0} + \beta_{1} \text{LnISSI}_{t-1} + \beta_{2} \text{ROAS}_{t-1} + \beta_{3} \text{LnIHSG}_{t-1} + \beta_{4} \text{INF}_{t-1} + \beta_{5} \text{NPL}_{t-1}$$

$$+ \sum_{i=1}^{n} \theta_{1} \Delta \text{LnISSI}_{t-1} + \sum_{i=1}^{n} \theta_{2} \Delta \text{ROAS}_{t-1} + \sum_{i=1}^{n} \theta_{3} \Delta \text{LnIHSG}_{t-1}$$

$$+ \sum_{i=1}^{n} \theta_{4} \Delta \text{INF}_{t-1} + \sum_{i=1}^{n} \theta_{5} \Delta \text{NPL}_{t-1} + \varepsilon_{t}$$

$$(3.a.)$$

Model 2

Madal 2

$$\begin{split} \Delta \text{LnISSI}_{t} &= \beta_{0} + \beta_{1} \text{LnISSI}_{t-1} + \beta_{2} \text{ROAS}_{t-1} + \beta_{3} \text{LnIHSG}_{t-1} + \beta_{4} \text{INF}_{t-1} + \beta_{5} \text{NPL}_{t-1} \\ &+ \beta_{6} \text{LnCOVID}_{t-1} + \sum_{i=1}^{n} \theta_{1} \Delta \text{LnISSI}_{t-1} + \sum_{i=1}^{n} \theta_{2} \Delta \text{ROAS}_{t-1} \\ &+ \sum_{i=1}^{n} \theta_{3} \Delta \text{LnIHSG}_{t-1} + \sum_{i=1}^{n} \theta_{4} \Delta \text{INF}_{t-1} + \sum_{i=1}^{n} \theta_{5} \Delta \text{NPL}_{t-1} \\ &+ \sum_{i=1}^{n} \theta_{6} \Delta \text{LnCOVID}_{t-1} + \varepsilon_{t} \end{split}$$
(3.b.)

$$\Delta \text{LnISSI}_{t} = \beta_{0} + \beta_{1} \text{LnISSI}_{t-1} + \beta_{2} \text{ROAS}_{t-1} + \beta_{3} \text{LnIHSG}_{t-1} + \beta_{4} \text{INF}_{t-1} + \beta_{5} \text{NPL}_{t-1} + \beta_{6} \text{PKKM}_{t-1} + \sum_{i=1}^{n} \theta_{1} \Delta \text{LnISSI}_{t-1} + \sum_{i=1}^{n} \theta_{2} \Delta \text{ROAS}_{t-1} + \sum_{i=1}^{n} \theta_{3} \Delta \text{LnIHSG}_{t-1} + \sum_{i=1}^{n} \theta_{4} \Delta \text{INF}_{t-1} + \sum_{i=1}^{n} \theta_{5} \Delta \text{NPL}_{t-1} + \sum_{i=1}^{n} \theta_{6} \Delta \text{PKKM}_{t-1} + \varepsilon_{t}$$

$$(3.c.)$$

In this case,  $\beta$  reflects the variance in the long-run variable. Meanwhile,  $\theta$  reflects variance in short-run variables and ECT coefficients are added to explore short-run relationships indicating the speed of adjustment of variables towards long-run convergence. The null hypothesis [H0:  $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$ ] contrasts with the alternative hypothesis [H1:  $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6$ ] that the variables in this analysis are interrelated in the long term.

This study also provides diagnostic tests to determine the robustness of the model, such as serial correlation tests with the LM Test, and heteroscedasticity tests using the BPG, White and Harvey methods, as well as normality tests, all of which are included in this study. The tests used in this study included the CUSUM and CUSUMSQ stability tests.

# 3. Result and Discussion

Prior to estimate and testing the ARDL bound test, a unit root test is performed to evaluate the order of integration in the series. The time series analysis procedure begins by providing a

statistical/unit root analysis of each variable used in the study. Pre-conditions for using the ARDL method that each variable may not be integrated from order 2, or optionally additional that all variables are not integrated at I(0). The unit root testing procedure uses 2 methods, namely Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP). The test results are shown in Table 3. Based on the ADF & PP, it was concluded that the all variables are integrated at level I (1). Thus, we conclude that the stationarity model satisfies the requirements of the bound test, also known as ARDL estimation. Table 2 shows a statistical description.

10	ible 2. Descript	ive statistics.					
Variables	ROAS	LnISSI	ROAC	LnIHSG	INF	NPL	LnCOVID
Mean	1.518638	5.193669	2.301902	8.710556	2.972939	3.56995	3.724133
Median	1.53355	5.212562	2.455215	8.705706	3.13	3.35795	0
Maximum	2.146023	5.364912	2.700438	8.885844	5.95	5.266544	10.67482
Minimum	0.416874	4.931321	1.593907	8.420447	1.32	2.348318	0
Std. Dev.	0.40844	0.095327	0.2858	0.104455	1.129566	0.775693	4.097288
Skewness	-0.454498	-0.980746	-0.998075	-0.646847	0.457715	0.599277	0.28469

Table 2. Descriptive statistics.

Table 3. Stationary test results at the level and first difference.

Unit Root Test	ADF			Conclutio	
Unit Root Test	I(0)	I(1)	I(0)	I(1)	n
ROAS	-1.511863	- 7.962840***	-1.555618	-7.961042***	I(1)
LnISSI	-1.244679	- 5.658879***	-1.410089	-3.751838***	I(1)
ROAC	-2.180956	-0.339110	-1.983504	-10.90447***	I(1)
LnIHSG	-1.682760	- 6.935266***	-1.682760	-6.857323***	I(1)
INF	-2.045687	- 7.594749***	-0.731847	-7.819814***	I(1)
NPL	-1.204707	- 4.529282***	-0.896967	-10.93959***	I(1)
LnCOVID	-0.922447	- 7.550365***	-0.993094	-5.745604***	I(1)

Note: \*\*\*,\*\* dan \* indicates rejection of the null hypothesis at the significance level of 1%, 5%, dan 10% respectively

Table 4.	Estimates	Long-run and	d short-run o	f Islamic	Banking	Performance

Dependent Variable: ROAS	1	2	3
Long Run			
ROAC	0.138888	0.47761***	0.436743***
LnISSI	0.362661	0.321354	-0.720643**
INF	-0.02879	-0.053753	-0.031547
NPF	-0.462339***	-0.370732***	-0.354724***
COVID		0.034045***	
PPKM			0.388673***
С	1.051508	0.106731	5.486656**
Short Run			
ΔROAC	0.432364***	0.492752***	0.418937***

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ΔLnISSI	-0.923488*	-1.195606**	-1.004903*
ΔINF	0.018941	0.005659	0.018866
$\Delta \text{NPF}$	-0.175058***	-0.177713***	-0.171552***
ΔCOVID		-0.003398	
ΔΡΡΚΜ			0.210945
Ect	-0.253461***	-0.311593***	-0.273225***
Diagnostic Tests			
Prob F-Stat	0.00000	0.00000	0.00000
R2	0.767755	0.795737	0.8324
Adj R2	0.75389	0.780262	0.819703
DW	0.578035	0.518241	0.602223
Bound Test	2.631797*	2.74966**	2.208828*
Breusch-Godfrey LM test for autocorrelation	76.96231***	88.30644***	68.54206***
BPG test for heteroskedasticity	2.749164***	3.360340***	2.902933**
Harvey test for homoscedasticity	4.905830***	6.324215***	4.619231***
White test for homoscedasticity	4.113710***	1.714087*	2.003407**
Normality test (J-B)	0.307825	0.263392	0.729658
Ramsey RESET test	0.886899	3.098293	14.09131***

Note: \*, \*\* and \*\*\* represents significance at 10%, 5% and 1% level respectively. For Bound Test, the F-statistics for co-integration analysis based on the selected ARDL models, \*\*\*, \*\*, \* are above the upper bound with a significance level of 10%, 5% and 1%. RESET is Ramsey model specification test to check model stability; LM is Lagrange Multiplier test for serial correlation; JB is Jarque-Bera normality test; BPG (The Breusch Pagan test ), Harvey and White is Heteroscedasticity test; \*, \*\*, \*\*\* is the parenthesis are p-values significat at 10%, 5% and 1%.

 Table 5. Estimates Long-run and short-run of Islamic Stock Index

Dependent Variable: LnISSI	1	2	3
Long Run			
LnIHSG	0.813577***	0.811529***	0.802628***
ROAS	0.032026**	0.035173**	0.028157*
INF	0.018309***	0.016922***	0.018717***
NPF	0.032969***	0.029128***	0.032914***
COVID		-0.001484	
PPKM			0.00569
С	-2.113805***	-2.077383***	-2.01547***
Short Run			
ΔLnIHSG	0.614244***	0.587646***	0.612633***
ΔROAS	0.025034	0.028383*	0.012199
ΔINF	0.008336	0.004513	0.009654
$\Delta \text{NPF}$	0.016765	0.017718*	0.013935
ΔCOVID		-0.006648***	
ΔΡΡΚΜ			0.045301**
Ect	-0.495884***	-0.468176***	-0.49815***

Diagnostic Tests			
Prob F-Stat	0.00000	0.00000	0.00000
R2	0.948041	0.9498	0.948313
Adj R2	0.944939	0.945997	0.944397
DW	1.143957	1.140383	1.123396
Bound Test	5.708778***	5.708778***	5.708778***
Breusch-Godfrey LM test for autocorrelation	13.23528***	12.82721***	14.24429***
BPG test for heteroskedasticity	0.723947	0.704521	0.681505
Harvey test for homoscedasticity	1.056244	0.78968	0.971129
White test for homoscedasticity	1.361442	1.896164*	1.102225
Normality test (J-B)	1.549189	1.337986	1.498446
Ramsey RESET test	16.61534***	13.30839***	20.54482

Note: \*, \*\* and \*\*\* represents significance at 10%, 5% and 1% level respectively. For Bound Test, the F-statistics for co-integration analysis based on the selected ARDL models, \*\*\*, \*\*, \* are above the upper bound with a significance level of 10%, 5% and 1%. RESET is Ramsey model specification test to check model stability; LM is Lagrange Multiplier test for serial correlation; JB is Jarque-Bera normality test; BPG (The Breusch Pagan test ), Harvey and White is Heteroscedasticity test; \*, \*\*, \*\*\* is the parenthesis are p-values significat at 10%, 5% and 1%.



Model 3







Table 4 presents Islamic Banking Performance in long-term and short-term ARDL estimates where model 1, 2 & 3 illustrate the short-run coefficients, long-run coefficients, and diagnostic tests. The Islamic Banking model shows that in the long term, the NPF variable have consistent an influence in all model on ROAS at a 1% level of significance, ROAS has a negative effect with a response of -0.462339 (model 1), -0.370732 (model 2) and -0.354724 (model 3) to a 1 percent increase in NPF. ROAC has a positive effect on models 2 and 3, meaning that performance in conventional banking can influence the performance of Islamic banking; and Ln ISSI has a negative effect of -0.720643 on changes in ROAS, illustrating that there is a possibility of substitution between the performance of Islamic banking and the Islamic market model. The variables COVID (model 2) and PKKM (model 3) both have a positive effect at a significance level of 1%, the effect of COVID is relatively small at 0.034 on increasing ROAS, and PKKM has an effect of 03886 on changing ROAS. This means that during a pandemic, an increase in cases and Community Activities Restrictions Enforcement policy provide a positive signal for the performance of Islamic banking through the efficiency and effectiveness of financing and savings. The results of the analysis show differences in the majority hypothesis in other studies of (Fajri et al., 2022; Le et al., 2022; Mateev et al., 2024; Mugableh et al., 2023; Shabir et al., 2023; Xiazi & Shabir, 2022), who found that the Covid-19 pandemic had a negative impact on banking profitability and performance. This is of course a new finding that only counter hypotheses indicate a different possibility. Other variables Banking risk (NPF) has a negative impact on profitability according to the findings of (Elekdag et al., 2020; Singh et al., 2021; Tölö & Virén, 2021).

In the short term, the variable is consistent at a significance level of 1% and gives a signal that there is a short term relationship in the Islamic banking model. NPF still consistently has a negative effect and ROAC has a positive effect on each model in the short term as well as in the long term. LnISSI has a negative coefficient in each model, meaning that short-term substitution is contrary to its long-term effect. All variables related to the Covid-19 pandemic show no effect in the short term.

In the ISSI model (Tabel 5), in the long term, LnIHSG, ROAS, INF and NPF are consistent in the three models have a positive effect on LnISSI, the result show that financial risk and investment substitution variables both move to affect the growth of the ISSI index and confirm with several findings of (Lopez, 2018) and (Pradhan et al., 2015) on Inflation; and contrary to the findings of (Chiang, 2023) and (Doho et al., 2023), and (Pirgaip & Uysal, 2023) on Nonperformance Loans. The variables COVID and PKKM do not have a long-term impact on ISSI. In the short term, the LnIHSG variable is consistent with the long term having a positive effect on ISSI movements, besides that in the short term COVID has a negative effect and PKKM has a positive effect. These findings are slightly different and confirm previous findings such as (Waheed et al., 2020) and (Basuony et al, 2022) the counter-hypothesis in (Nomran & Haron, 2021) and (Kamal & Wohar, 2023) as well as the combined findings of (Iyke & Maheepala, 2022) & (Vo et al., 2022). The INF variable has a negative effect as found by (Bai et al., 2023) and (Chiang, 2023).

The diagnostic test shows that the ISSI model has a better model than the Islamic banking model, but the BG-LM test shows all model may have correlation and the Whites and Harvey

test results show no heteroscedasticity problems on ISSI Model. The Jarque-Bera normality show that the banking model an ISSI model have a normal model, and the Ramsey RESET tests for model specifications in model 1 & 2 for islamic banking, and model 3 for ISSI Model have stability equation. From the stability of the model with CUSUM & CUSUMQ (see figure 1 & 2) shows the difference test result for both model in the Islamic Banking and ISSI model.

The results of the study show that the performance of Islamic banking can be influenced in line with the Covid-19 pandemic, but the Islamic capital market index is opposite in the short term. The Community Activities Restrictions Enforcement policy has a positive correlation in each model, the effectiveness of the restrictive policy accordance with the performance level of Islamic banking and capital markets. The role of Bank Indonesia in efforts to control the banking and monetary system during a pandemic such as maintaining the stability of the Rupiah exchange rate, controlling inflation, and supporting financial system stability, as well as emphasizing the application of fintech are considered effective in avoiding the impact of Covid-19 on banking performance.

# 4. Conlusions

The Covid-19 pandemic caused panic on global financial markets and had an impact on a global recession. The policy steps taken by the government in an effort to reduce the number of new cases resulted in a slowdown in economic activity, reduced income and reduced the power of people's purchasing. The policy of suppressing bank financing in an effort to reduce credit risk also affected banking performance. Fiscal policy measures, monetary and macroprudential policies, as well as policies in the financial sector taken by the Government and authorities in the context of saving the national economy were able to mitigate the impact of the Covid-19 pandemic, so that the recovery process gradually shows improvement and stability of the financial system is still awake.

This research examines the impact of the Covid-19 case on Islamic financial performance, namely the performance of Islamic banking and ISSI. The variables used are new Covid cases, The Community Activities Restrictions Enforcement policy, inflation, market subtitution and Islamic financial risk (NPF) using monthly data. The results show that in the long run, new cases of Covid-19 and The Community Activities Restrictions Enforcement policy actually have a positive impact on banking performance. This provides new insight that the Covid case does not always have a negative impact on banking performance and several counter hypotheses from previous research. In the sort term, for Stock market index, the case of Covid-19 have negetive impact, and positif for The Community Activities Restrictions Enforcement policy. The strong influence of the policy mixed on financial system stability and vaccination policies in mitigating the impact of Covid-19 may have influenced our findings. However, our analysis suggests that other factors affecting the performance of Islamic banking and capital markets are influenced by other, more relevant assumptions that lead to consumer behavior, other commodity prices, macroeconomic and global conditions, as well as credit restructuring, therefore to have other influences on Islamic banking and capital market performance.

# 5. References

- Bai, C., Duan, Y., Fan, X., & Tang, S. (2023). Financial market sentiment and stock return during the COVID-19 pandemic. *Finance Research Letters*, 54, 103709. https://doi.org/10.1016/j.frl.2023.103709
- Balboula, M., & Metawea, M. (2021). The Impact of Covid-19 pandemic on Bank Performance: Evidence from Listed Banks on the Egyptian Stock Exchange. *Delta University Scientific Journal*, 4(1), 25–35. https://doi.org/10.21608/dusj.2021.205891
- Bank Indonesia. (2014). BI Tegaskan Indonesia Sebagai Kiblat Baru Keuangan Syariah Dunia. Reached at December 2023 from https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/Indonesia-Kiblat-Baru-Keuangan-Syariah-Dunia.aspx
- Bank Indonesia. (2020). Laporan Perekonomian Indonesia Tahun 2020. Bank Indonesia, Jakarta.
- Basuony, M. A. K., Bouaddi, M., Ali, H., & EmadEldeen, R. (2022). The effect of COVID -19 pandemic on global stock markets: Return, volatility, and bad state probability dynamics. *Journal of Public Affairs*, 22(S1). https://doi.org/10.1002/pa.2761
- Chiang, T. C. (2023). Real stock market returns and inflation: Evidence from uncertainty hypotheses. *Finance Research Letters*, 53, 103606. https://doi.org/10.1016/j.frl.2022.103606
- Cicchiello, A. F., Cotugno, M., Perdichizzi, S., & Torluccio, G. (2022). Do capital buffers matter? Evidence from the stocks and flows of nonperforming loans. *International Review of Financial Analysis*, 84, 102369. https://doi.org/10.1016/j.irfa.2022.102369
- Demirgüç-Kunt, A., Pedraza, A., & Ruiz-Ortega, C. (2021). Banking sector performance during the COVID-19 crisis. *Journal of Banking & Finance*, 133, 106305. https://doi.org/10.1016/j.jbankfin.2021.106305
- Doho, L. R. A., Somé, S. M., & Banto, J. M. (2023). Inflation and west African sectoral stock price indices: An asymmetric kernel method analysis. *Emerging Markets Review*, 54, 100987. https://doi.org/10.1016/j.ememar.2022.100987
- Elekdag, S., Malik, S., & Mitra, S. (2020). Breaking the Bank? A Probabilistic Assessment of Euro Area Bank Profitability. *Journal of Banking & Finance*, *120*, 105949. https://doi.org/10.1016/j.jbankfin.2020.105949
- Fajri, M. Z. N., Muhammad, A. A., Umam, K., Putri, L. P., & Ramadhan, M. A. (2022). The Effect Covid-19 and Sectoral Financing on Islamic Bank Profitability in Indonesia. *Journal of Islamic Economic Laws*, 5(1), 38–60. https://doi.org/10.23917/jisel.v5i1.17181
  - Fang, H. (2021). Covid-19: The Impact On The Economy And Policy Responses—AReview(1236).ReachedatDecember2023https://www.adb.org/sites/default/files/publication/690541/adbi-wp1236.pdf

- Haruhiko, K. (2020). COVID-19 and the Global Economy: Impact and Challenges -- From Asia's Perspective --. Reached at December 2023 https://www.bis.org/review/r201007d.pdf
- Hassan, M. K., Karim, M. S., Lawrence, S., & Risfandy, T. (2022). Weathering the COVID-19 storm: The case of community banks. *Research in International Business and Finance*, 60, 101608. https://doi.org/10.1016/j.ribaf.2021.101608
- Iyke, B. N., & Maheepala, M. M. J. D. (2022). Conventional monetary policy, COVID-19, and stock markets in emerging economies. *Pacific-Basin Finance Journal*, 76, 101883. https://doi.org/10.1016/j.pacfin.2022.101883
- Kamal, J. Bin, & Wohar, M. (2023). Heterogenous responses of stock markets to covid related news and sentiments: Evidence from the 1st year of pandemic. *International Economics*, 173, 68–85. https://doi.org/10.1016/j.inteco.2022.11.001
- Le, T. DQ., Ho, T. H., Nguyen, D. T., & Ngo, T. (2022). A cross-country analysis on diversification, Sukuk investment, and the performance of Islamic banking systems under the COVID-19 pandemic. *Heliyon*, 8(3), e09106. https://doi.org/10.1016/j.heliyon.2022.e09106
- Lopez, P. (2018). A New Keynesian Q theory and the link between inflation and the stock market. *Review of Economic Dynamics*, 29, 85–105. https://doi.org/10.1016/j.red.2017.12.008
- Mateev, M., Sahyouni, A., & Al Masaeid, T. (2024). Bank performance before and during the COVID-19 crisis: Does efficiency play a role? *Review of Managerial Science*, *18*(1), 29–82. https://doi.org/10.1007/s11846-022-00611-y
- Monticone, C. (2022, April 13). The impact of the COVID-19 pandemic on financial consumers in Asia. OECD. Reached at December 2023 https://www.oecd.org/financial/education/Combined-Presentation-JVC-webinar-13-April-2022.pdf
- Mugableh, M. I., Malkawi, E. M., & Hammouri, M. A. (2023). Analyzing the effects of actions followed by the Central Bank of Jordan during COVID-19 pandemic on financial performance of Jordanian banks. *Arab Gulf Journal of Scientific Research*, 41(4), 508– 517. https://doi.org/10.1108/AGJSR-09-2022-0189
- Nomran, N. M., & Haron, R. (2021). The impact of COVID-19 pandemic on Islamic versus conventional stock markets: international evidence from financial markets. *Future Business Journal*, 7(1), 33. https://doi.org/10.1186/s43093-021-00078-5
- OJK. (2022). Panduan Mengukur Quantitative Impact Dalam Rangka Menjaga Ketahanan Perbankan Apabila Kebijakan Stimulus Covid-19 Berakhir. Reached at December 2023 https://ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Panduan-Mengukur-Quantitative-Impact-Dalam-Rangka-Menjaga-Ketahanan-Perbankan-Apabila-Kebijakan-Stimulus-Covid-19-Berakhir.aspx
  - Park, C.-Y., & Shin, K. (2021). COVID-19, nonperforming loans, and cross-border bank lending. *Journal of Banking & Finance*, *133*, 106233. https://doi.org/10.1016/j.jbankfin.2021.106233

- Pirgaip, B., & Uysal, A. (2023). The impact of non-performing loan sales on the stock market: The role of corporate governance in an emerging market. *Borsa Istanbul Review*, 23(3), 674–684. https://doi.org/10.1016/j.bir.2023.01.006
- Pradhan, R. P., Arvin, M. B., & Bahmani, S. (2015). Causal nexus between economic growth, inflation, and stock market development: The case of OECD countries. *Global Finance Journal*, 27, 98–111. https://doi.org/10.1016/j.gfj.2015.04.006
- Pratama, M. A. (2022). Covid-19 Dan Efeknya Ke Performa Pasar Modal Indonesia. Reached at December 2023: https://www.bi.go.id/id/bi-institute/BI-Epsilon/Pages/Covid-19-dan-Efeknya-ke-Performa-Pasar-Modal-Indonesia.aspx
- Rahmayani, D., & Oktavilia, S. (2021). Does the Covid-19 Pandemic Affect the Stock Market in Indonesia? *Jurnal Ilmu Sosial Dan Ilmu Politik*, 24(1), 33. https://doi.org/10.22146/jsp.56432
- Shabir, M., Jiang, P., Wang, W., & Işık, Ö. (2023). COVID-19 pandemic impact on banking sector: A cross-country analysis. *Journal of Multinational Financial Management*, 67, 100784. https://doi.org/10.1016/j.mulfin.2023.100784
- Silva, P. H. N., & de Araújo, J. M. (2023). Inflation, perception of economic uncertainty and COVID-19: Evidence from Central Bank communication. *Central Bank Review*, 23(1), 100108. https://doi.org/10.1016/j.cbrev.2023.100108
- Singh, S. K., Basuki, B., & Setiawan, R. (2021). The Effect of Non-Performing Loan on Profitability: Empirical Evidence from Nepalese Commercial Banks. *Journal of Asian Finance, Economics and Business, 8*(4), 709–716. https://doi.org/10.13106/jafeb.2021.vol8.no4.0709
- Tölö, E., & Virén, M. (2021). How much do non-performing loans hinder loan growth in Europe? *European Economic Review*, *136*, 103773. https://doi.org/10.1016/j.euroecorev.2021.103773
- Vo, D. H., Ho, C. M., & Dang, T. H.-N. (2022). Stock market volatility from the Covid-19 pandemic: New evidence from the Asia-Pacific region. *Heliyon*, 8(9), e10763. https://doi.org/10.1016/j.heliyon.2022.e10763
- Waheed, R., Sarwar, S., Sarwar, S., & Khan, M. K. (2020). The impact of COVID-19 on Karachi stock exchange: Quantile-on-quantile approach using secondary and predicted data. *Journal of Public Affairs*. https://doi.org/10.1002/pa.2290
- World Bank. (2020). Protecting People and Economies: Integrated Policy Responses to COVID-19. Reached at December 2023 https://openknowledge.worldbank.org/entities/publication/118f502d-4693-558d-a144bacd860c2543
- Xiazi, X., & Shabir, M. (2022). Coronavirus pandemic impact on bank performance. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.1014009