Global Economic Policy Uncertainty and Islamic Stock Market in Indonesia

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Abstract

The investigation of economic policy uncertainty (EPU) was necessary during financial and trade integration between countries. In this context, there was a spillover effect of global economic policy protections impacting stock markets. Therefore, this research aimed to determine the effect of global policy proxied by the United States, China, and Japan on Islamic stock market in Indonesia. Macroeconomic indicators were also included in the research model and the time series data was obtained from January 2015 to December 2022. In addition, Vector Error Correction Model (VECM) was used as an analytical method in the model. The results showed that Islamic stocks responded positively to global economic policy, exchange rates, and exports to stock index, while inflation reported a negative response.

Keywords: economic policy uncertainty, economic uncertainty, Islamic stock market

INTRODUCTION

Economic policy uncertainty (EPU) is believed to have a broad impact on economic activity and financial markets (Dai, Xiong, & Zhou, 2021). Global concerns have increasingly surfaced after the 2008 financial crisis (Baker et al., 2016). A series of subsequent events include Britain's Exit (Brexit), the 2017 United States presidential election, the United States trade war with China (Lei & Song, 2022), and the COVID-19 pandemic (Altig et al., 2020; Goodell et al., 2020; Kumar et al., 2021; Shen et al., 2021). Furthermore, the lack of momentum for world economic growth (Atri et al., 2021) increases uncertainty in global policy. In this context, the IMF report (2022) warned against the economic slowdown experienced by many countries in 2023. The three factors driving a significant global economic slowdown in many countries are the increasing cost of living due to inflationary pressures (MacChiarelli et al., 2021), China's economic slowdown (Cashin et al., 2017), and the propagation effect of the Russian-Ukrainian war (Mariotti, 2022).

The research of EPU and the impact on stock market has attracted several attention and some empirical evidence about the influence can be found in (Dai et al., 2021; Fang et al., 2018; He et al., 2020; Lei & Song, 2022; Yu & Huang, 2021). Meanwhile, several research examined spillover impact of country EPU on stock market (Christou et al., 2017; He et al., 2020; Li & Peng, 2017).

EPU is related to the actions taken by the government to influence the economy (Beckmann & Czudaj, 2017) and the concept serves as a combination of various indicators of changes in economic policy. This includes fiscal, monetary, industrial, exchange rate, and trade policy (Gu et al., 2021). After the introduction by (Baker et al., 2016), EPU index has been used as the main proxy for measuring uncertainty. (Baker et al., 2016) developed EPU index as the weighted average of the three components. The first component is the frequency of policy uncertainties discussed in major newspapers with the largest weight. The second component is the tax provisions that will expire in the future, while the third is a survey on predictions of macroeconomic indicators such as inflation and government spending.

The United States, China, and Japan, as the countries with the largest economies, have GDP 25,44 Trillion USD (25% of total world GDP), 18 Trillion USD (18% of total world GDP), and 4,26 Trillion USD (4,5% of total world GDP), respectively (World Bank, 2024). EPU in the United States, China, and Japan certainly spreads to other countries, such as Indonesia. Meanwhile, spillover effect depends

on the level of financial openness and trade relations between countries (Bhattarai et al., 2020). The integration of finance and trade has increased the vulnerability to external shocks, particularly those from the world's leading economies. According to (Ahmed et al., 2021), the United States EPU had a significant spillover effect on global stock market. In particular, spillover effect on stock market depends on the level of financial openness, trade relations with the United States, and the vulnerability of the fiscal position.

(Gilal, 2019) examined the effect of the United States EPU on Indonesian stock market between January 2000 to December 2017. The results showed a consistently positive correlation between United States EPU and Indonesian stock market returns. A negative correlation occurs after the September 9, 2001, terrorist attacks, the 2008 global financial crisis, as well as the period from June to August 2013 and June to September 2015. Estimation of a negative correlation during these several periods may suggest that an increase in United States EPU may result in a decrease in market returns in Indonesian stock.

Spillover effect of global EPU proxied by the economic policy uncertainties of the United States, China, and Japan on Islamic stock market has been examined. There is limited research on the relationship between the two variables, specifically in the scope of Islamic stock market. In addition, Indonesian macroeconomic indicators such as inflation, exchange rates, and exports are also used in the model since the research contributes to the literature by providing new empirical evidence about spillover effect. The analysis is focused on Islamic stock indices which are lacking in the literature, specifically in examining spillover effects of global economic policy.

This research analyzes data on Islamic stock index and has continued to attract a steady stream of funds from international investors, both Muslim and non-Muslim, over the last few decades (Aziz et al., 2020). In 2023, the capitalization of Islamic stocks reached 390 billion USD (OJK – Financial Service Authority, 2023). This number is smaller than Malaysian Islamic stocks which reached 504 billion USD (Securities Commission Malaysia, 2023). However, Indonesian Islamic stock market had an increasing growth in 2013 compared to Malaysia (Tulasmi & Trihariyanto, 2016) and has continued to develop into investment instruments on global scale. The structure is designed with derivative instrument restrictions and has reliability against financial crises (Erdoğan et al., 2020). Islamic stock market has different characteristics such as ethical investment, screening ratios, low tolerance for interestbased leverage, and restrictions on derivative instruments. As an example, for stock to be considered Islamic, the issuer may not engage in entertainment classified as gambling, interest-based financial services, trade that is not accompanied by the delivery of goods and services, as well as conducting transactions containing elements of bribery (Bapepam, 2012). In addition, there are filtering criteria in Islamic stock index, including the debt-to-equity ratio of not more than 33%, restrictions on the entry of industrial sectors carrying out activities prohibited in Islam and the inclusion of the financial sector as a supporting factor (Ali et al., 2018).

(Aziz et al., 2020) analyzed volatility spillover from global EPU and macroeconomic indicators on Islamic stock market returns. This research focuses on Sharia stock indices of developing countries, namely Indonesia, Malaysia, and Turkey. The macroeconomic indicators are the index of industrial production, inflation, and exchange rate. Research results show different results for each country. In the context of Malaysia and Turkey, only the growth of the industrial production index and global EPU has a significant spillover effect on Islamic stock market returns, respectively. However, exchange rate and inflation did not have a significant spillover effect on Islamic stock index of the three countries.

The research by (Permana et al., 2023) identified the impact of macroeconomic indicators on Islamic stock market in Indonesia and India. The results showed that foreign direct investment, exports, gross domestic product, and exchange rate had a positive effect on Islamic stock market. Additionally, (Jamaludin et al., 2017) analyzed the economies of three Southeast Asian countries, namely Singapore, Indonesia, and Malaysia to measure the macroeconomic impact of Islamic stock index. The research showed that inflation and exchange rate had significant negative and positive effects on Islamic stock index, while money supply had no significant effect.

From the discussions, the literature provides various results regarding the relationship of EPU and macroeconomic indicators to Islamic stock index. Indonesia has become an important context for Islamic stock market as the home to the largest Muslim community (Hudaifah & Ajija, 2016). Since the impact of global economies on certain markets is subject to the strength of the country (Bhattarai et al., 2020), an analysis should be carried out to examine the ability of Indonesian Islamic stock. Differences in results may be due to method, sample period, and data frequency. The novelty of this research comes from the attempts to provide the latest empirical evidence on the relationship between EPU and macroeconomic indicators on Islamic stock performance in Indonesia.

METHOD

This research uses monthly time series data from January 2015 to December 2022 to examine the impact of global EPU on the Indonesian Sharia stock index. Islamic stock performance was the dependent variable, proxied by Indonesian Sharia Stock Index (ISSI). The index tracks the performance of Sharia-compliant companies listed on Indonesia Stock Exchange. ISSI constituents are all shares included in Sharia Securities List (DES) issued by OJK and listed on the main and IDX development boards. Meanwhile, the number of constituents differs each year because the index is reviewed on Sharia compliance criteria twice. EPU is the independent variable and the proxies are the indexes of the United States, China, and Japan. These three countries are among the largest economies in the world, and the policy can have a significant impact on global markets. The use of these countries as proxies for global EPU provides a representative sample of global market and the related data is available on the website of www.policyuncertainty.com. Meanwhile, Indonesian macroeconomic indicators, such as inflation, exchange rate, and exports serve as control variables. These data on macroeconomic variables are obtained from the websites of the statistics center (www.bps.go.id) and Indonesia Bank (www.bi.go. id) for inflation and exchange rates, respectively. The macroeconomic indicators are used as control variables in economic research to account for the conditions. In this context, inflation is an important control variable, affecting the purchasing power of consumers and businesses. Exchange rate is another important control variable influencing the competitiveness of domestic companies in global market and the performance of stock market. In addition, exports show the health of the domestic economy and the ability to compete in global market. The monthly data used are obtained from all variables during the eight-year research period. These data are more suitable for VECM models, which require stationarity and the presence of a long-run equilibrium relationship.

Vector error correction model (VECM) is a multivariate time series model that combines vector autoregression (VAR) with an error correction mechanism to capture short-term dynamics and long-term equilibrium relationships. This model examines short-term and long-term impacts on ISSI, as well as the adjustment process between the variables and the index. The behavior of the index should be understood since VECM has some potential limitations regarding the complexity and assumptions. The results may be biased or unreliable when these assumptions are not met.

VECM analysis requires several steps, namely unit root test, determining optimal lag, cointegration test, estimation, impulse response, and variance decomposition (Ren et al., 2020). First, a unit root test is performed regarding the stationarity of the data since most economic variables are not stationary (Andrei & Andrei, 2015). The most used test is Augmented Dickey-Fuller (ADF) and the stationarity of the data can be seen by comparing the t statistic with the MacKinnon critical value. The data is stationary when the t value of ADF test statistic is greater than the MacKinnon critical value. Stationary data at the level leads to the use of VAR with standard methods, while non-stationary data have implications for two VAR options, namely VAR in the form of differences or VECM. Second, determining the optimal lag length can be conducted using information criteria referring to the values of AIC (Akaike Information Criterion), SIC (Schwarz Information Criterion), and HQ (Hannan-Quin Information Criterion). Based on the information criteria, the optimal lag is determined by the criterion containing Final Prediction Error Correction (FPE) or the smallest number of AIC, SIC, and HQ among the various proposed lags (Suharsono et al., 2017). Third, the cointegration test is used to confirm the existence of a potential long-term equilibrium relationship between variables. The most used cointegration tests are the Johansen maximum likelihood and the two-step Engle-Granger (EG) methods. In this research, the Johansen maximum likelihood method was used for the cointegration test. The appropriate estimation method is VECM when VAR model is found to have one or more cointegration vectors, while the appropriate estimation method is VAR in the form of differences when there is no cointegration relationship. Fourth, the model is built based on previous tests and to examine long-term and short-term relationships between variables, VECM estimates are constructed as follows:

$$DLnISSI_{t} = a_{10} + \sum_{j=1}^{k} \alpha_{11} DLnISSI_{t-j} + \sum_{j=1}^{k} \alpha_{12} DLnUSEPU_{t-j}$$

$$+ \sum_{j=1}^{k} \alpha_{13} DLnCHEPU_{t-j} + \sum_{j=1}^{k} \alpha_{14} DLnJAPEPU_{t-j}$$

$$+ \sum_{j=1}^{k} \alpha_{15} DINF_{t-j} + \sum_{j=1}^{k} \alpha_{16} DLnEXC_{t-j}$$

$$+ \sum_{j=1}^{k} \alpha_{17} DLnEX_{t-j} + \mu_{1t}$$

Where DLnISSI, DLnUSEPU, DLnCHEPU, DLnJAPEPU, DINF, DLnEXC, and DLnEX are data in the form of first differences, k is the maximum length of the lag, j is the lag, α is the regression coefficient and μ is the error correction term. DLnISSI represents a variable of Islamic stock performance, while DLnUSEPU, DLnCHEPU, and DLnJAPEPU are proxies of global EPU, namely United States, China, and Japan. DINF, DLnEXC, and DlnEX are macroeconomic variables consisting of inflation, exchange rate, and export.

Variables	Explanation		
α	Regression coefficient		
ISSI	Indonesian Sharia Stock Index		
USEPU	United States EPU		
CHEPU	China EPU		
JAPEPU	Japan EPU		
INF	Inflation		
EXC	Exchange rate		
EX	Export level		
μ	Error correction		

Table 1. Variables and Explanation of the Model

Source: Developed for the research

Fifth, the impulse response function is constructed to measure the effect of standard deviation analysis of the random disturbance term of the endogenous variables on the current and future values. Furthermore, IRF analysis can track the response of endogenous variables in VAR model. This is due to a shock or a change in the disturbance variable, which can be seen provided the effect of the shock on other variables disappears. Finally, forecast error variance decomposition (FEVD) serves as an analysis tool in VAR model to provide information about the movement of the effect of shock and predict the percentage contribution of variance due to changes in certain variables.

RESULT AND DISCUSSION

The stationarity test is an essential step in analyzing time series data in determining the absence of unit roots between variables as well as the validity of the relationship between variables in the equation. In addition, the test is also used to determine the type of VAR model used, and the data stationarity test is based on ADF.

Variable	Variable Level			First Difference			
	ADF Statistic	Critical Value	Prob.	ADF Statistic	Critical Value	Prob.	
LNISSI	-2.03207	-3.45780	0.5762	-8.343848	-3.45832	0.0000	
LNUSEPU	-5.05630	-3.45780	0.0004	-13.16978	-3.45832	0.0000	
LNCHEPU	-3.89453	-3.45780	0.0160	-12.37164	-3.45832	0.0000	
LNJAPEPU	-3.68459	-3.45780	0.0282	-10.93172	-3.45832	0.0000	
INF	-7.62671	-3.45780	0.0000	-9.483902	-3.46051	0.0000	
LNEXC	-4.26797	-3.45780	0.0053	-7.763197	-3.45939	0.0000	
LNEX	-1.84778	-3.46109	0.6729	-10.62075	-3.46109	0.0000	

Table 2. Unit Root Test

Source: Processed data

The explanation of each abbreviation in the variable row is provided on the left, where LNISSI means natural logarithm for Islamic stock performance variable. Meanwhile, LNUSEPU, LNCHEPU, and LNJAPEPU are proxies of all independent variables namely EPU of the United States, China, and Japan. INF, LNEXC, and LNEX are macroeconomic variables consisting of inflation, exchange rate, and export level. The variables do not have unit roots except ISSI and export, and the next step after the data stationarity test is to determine the optimal lag length. Based on Table 3, lag 1 is recommended as the optimal lag candidate.

Lag	LogL	LR	FPE	AIC	SC	HQ
0	229.6304	NA	8.41e-12	-5.636213	-5.426262	-5.552100
1	502.2655	490.0529	2.94e-1*	-11.29786	-9.618251*	-10.6249*
2	544.3096	68.12217	3.60e-14	-11.12176	-7.972496	-9.860070
3	579.1035	50.20893	5.55e-14	-10.76211	-6.143191	-8.911632
4	632.4751	67.55899	5.75e-14	-10.87279	-4.784207	-8.433516
5	675.7689	47.12993	8.58e-14	-10.72833	-3.170088	-7.700265
6	752.1457	69.60922*	6.51e-14	-11.42141	-2.393514	-7.804558
7	833.4039	59.65793	5.58e-14	-12.23807	-1.740520	-8.032432
8	909.1670	42.19719	8.21e-14	-12.9156*	-0.948410	-8.121190

Table 3. Lag Optimum

Source: Processed data

The subsequent step is testing the stability and this condition must be met by dynamic models such as VAR. This is because when an unstable VAR model is found, the impulse response analysis and variance decomposition become invalid. As shown in Table 4, VAR model formed is stable because all the AR root values are below 1 and in the unit circle. Therefore, the value is valid enough to be used in the impulse response and variance decomposition analysis processes.

Root	Modulus
0.989517	0.989517
0.861457 - 0.055921i	0.863270
0.861457 +0.055921i	0.863270
0.704012 - 0.114305i	0.713231
0.704012 +0.114305i	0.713231
0.267852 - 0.353946i	0.443872
0.267852 +0.353946i	0.443872
-0.435817	0.435817
-0.315203- 0.209400i	0.378419
-0.315203+0.209400i	0.378419
0.044533 - 0.361911i	0.364640
0.044533 +0.361911i	0.364640
0.123578	0.123578
-0.120379	0.120379

Table	4.	Modulus

Source: Processed data

Stationary data at the level lead to the use of VAR with standard methods, while non-stationary data have implications for two VAR options in the form of differences or VECM. The choice of VAR test method shows the possibility of a cointegration relationship between variables. Based on the Trace Statistic and Maximum Eigenvalue tests in Table 5, there is a cointegration relationship between variables, hence ,VAR is used in the form of VECM.

Hypothesized No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob		
	Т	race Statistic				
None*	0.463192	164.9863	134.6780	0.0003		
At most 1*	0.341928	108.3738	103.8473	0.0242		
At most 2	0.298750	70.29564	76.97277	0.1449		
At most 3	0.151580	38.00061	54.07904	0.5726		
At most 4	0.130104	23.04212	35.19275	0.5256		
At most 5	0.081791	10.35838	20.26184	0.6046		
At most 6	0.028096	2.593323	9.164546	0.6590		
Maximum Eigenvalue						
None*	0.463192	56.61251	47.07897	0.0036		

Table 5. Cointegration Test

Hypothesized No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob
At most 1	0.341928	38.07818	40.95680	0.1018
At most 2	0.298750	32.29502	34.80587	0.0968
At most 3	0.151580	14.95849	28.58808	0.8194
At most 4	0.130104	12.68374	22.29962	0.5877
At most 5	0.081791	7.765061	15.89210	0.5760
At most 6	0.028096	2.593323	9.164546	0.6590

Source: Processed data

The difficulty in interpreting the coefficients resulting from the estimation results is a weakness of the weaknesses of VAR system. Therefore, an impulse response is used to answer this research and determine the effect of shock between variables. In addition, the impulse response also provides a direction for the relationship between the magnitude of the influence of endogenous variables.



Figure 1. Impulse Response

Impulse results showing the response of Indonesian Sharia Stock Index to global EPU shocks proxied by the United States, China, and Japan can be seen in Figure 1 and the increase has responded positively. Furthermore, the increase in Indonesian Sharia Stock Index in the 3rd period was 0.008823% in response to the United States EPU shock. In the 3rd period, Japan and China shocks received a positive response of 0.005535% and 0.001495%, respectively. In the 6th period, the United States, China, and Japan responded positively to Indonesian Sharia Stock Index of 0.008200%, 0.001496%, and 0.005093%, respectively. In the 12th period, the United States, China, and Japan responded positively to Indonesian Sharia Stock Index of 0.008264%, 0.001543%, and 0.005084%, respectively.

In addition to policy shock and global economic uncertainty as the independent variables, this research also uses macroeconomic or control variables, including inflation, the rupiah exchange rate, and exports. The results show the response of Indonesian Sharia Stock Index to the shock of the macroeconomic variables. The increase in inflation was responded to positively at the beginning of the period, while a positive response of 0.000901% was obtained in the 3rd period. In the 5th, 9th, and 12th periods, Indonesian Sharia Stock Index responded negatively to the inflation shock of -0.000204%, -9.98368%, -0.000107%, respectively. Meanwhile, the weakening of the rupiah exchange rate in the 3rd, 6th, and 12th periods was responded positively by 0.003788%, 0.003602%, and 0.003586%. In the 3rd, 6th, and 12th periods, Indonesian Sharia Stock Index responded positively to the increase in exports by 0.004092%, 0.003407%, and 0.003439%, respectively.

Period	DLNISSI	DLNUSEPU	DLNCHEPU	DLNJAPEPU	DING	DLNEXC	DLNEX
1	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	96.27452	2.309223	0.234362	0.480773	0.005091	0.442868	0.253168
3	95.12277	2.837985	0.188686	0.843915	0.017480	0.534092	0.455069
4	94.89065	2.964321	0.165258	0.959830	0.013179	0.544590	0.462169
5	94.71889	3.040328	0.156501	1.021062	0.010836	0.558716	0.493665
6	94.62494	3.078638	0.148196	1.062221	0.009363	0.570934	0.505711
7	94.55157	3.113292	0.143683	1.088816	0.008069	0.578877	0.515690
8	94.49499	3.139341	0.140053	1.110325	0.007082	0.584880	0.523327
9	94.45212	3.159399	0.137227	1.126682	0.006329	0.589218	0.529020
10	94.41817	3.175018	0.134996	1.139709	0.005737	0.592743	0.533631
11	94.39062	3.187716	0.133164	1.150273	0.005257	0.595614	0.537350
12	94.36773	3.198267	0.131654	1.159035	0.004857	0.598011	0.540441

Table 6. Variance Decomposition

Source: Processed Data

The biggest contribution to Indonesian Sharia Stock Index is the variant on the variable, which continued to decline until the end of the period but remained the most dominant. In the 6th period, the contribution has fallen to 94.62494% from the previous 95.12277% in the 3rd period. The variance contribution to Indonesian Sharia Stock Index variable until the end of the 12th period was 94.36773%.

The effect of an external shock with the largest contribution is the variance in the United States EPU variable. In the 6th period, the contribution of the variable was 3.078638%, experiencing an increase from the 3rd period of 2.837985%. The contribution of variance to the United States EPU variable in the 12th period was 3.198267%. The 2nd, 3rd, 4th, 5th, and 6th biggest influences are occupied by Japan EPU, rupiah exchange rate, exports, China EPU, and inflation with the magnitudes of 1.159035%, 0.598011%, 0.540441%, 0.131654 %, and 0.004857 %, respectively.

Based on the impulse response, this research confirms a positive relationship between global EPU and Islamic stock market in Indonesia. The results were consistent with Gilal (2019), where there was a positive relationship between the United States EPU and stock market. Similarly, Christou et al., (2017) analyzed spillover effect of the United States EPU on stock market in several Asia-Pacific countries. The Australian stock market reported a positive response to the United States EPU. Meanwhile, other stock markets, namely Canada, Japan, China, and South Korea, have a negative relationship between EPU and stock market.

The positive response of Islamic stock index to global EPU can be explained by two reasons. First, stock market is more dependent on the domestic economy than the external. Indonesian Central Securities Depository (KSEI) reported that the composition of Indonesian capital market assets at the end of 2023 consisted of domestic and foreign investors of 58.01% and 41.99%, respectively. (Jamaani & Roca, 2015) stated the weak level of foreign participation as an important characteristic of stock market in Islamic countries. Large number of foreign investors in stock market leads to withdrawal of investment from the market when global EPU is high. The high participation of domestic investors made Indonesian Islamic stock market less volatile during the crisis period and responded positively to EPU. Second, the requirement for selecting conventional stocks is through a quantitative criteria screening process, where the interest-bearing debt ratio must not exceed 45%. This process creates an extra precaution to keep uncertainty low since the market structure is better and free from high risk. Optimistic investors increase shareholdings when global EPU decreases but massive selling is not conducted due to the prevalence of low risk in the market. Therefore, Islamic stock market shows a positive response following typical uncertainty shocks (Istiak & Alam, 2020).

The positive response of ISSI in global economic uncertainty cannot be separated from Indonesian macroeconomic conditions. The economy showed positive performance with strong and stable growth despite being in global situation of uncertainty. Generally, Indonesia has recorded economic growth in the range of 5% except during COVID-19 in 2020 and 2021. Apart from fairly strong and stable economic growth, the positive performance is supported by a controlled inflation rate, which has averaged around 3% for almost the last decade (BPS, 2023). Inflation touched 1.68% in 2020 and this figure was reported as the lowest in Indonesian history. This phenomenon occurred when the economy was experiencing a recession in the period 2020 to the first quarter of 2021 due to the pandemic. The slowdown also suppressed people's purchasing power to decrease demand drastically.

The Russian-Ukrainian war erupted at the end of February 2022, causing food and energy commodity prices to rise significantly. Before the pandemic, world crude oil prices were only around USD 60 per barrel but rose to around USD 110 in mid-2022. Indonesian inflation rose to 5.95% (yoy) in September 2022 after the government decided to increase the price of subsidized fuel oil on September 3, 2022. Apart from the price of oil, pressure from food inflation was also very high in 2022. Indonesian food prices in 2022 increased due to climate change, restrictions on exports of commodities from several countries, and the impact of the Russia-Ukraine war. This big impact is reflected in the fast rate of volatile price inflation, which is dominated by foodstuffs.

The increasing condition of EPU has caused exchange rates in various countries to depreciate (Abid, 2020). The rupiah exchange rate in the third quarter of 2023 experienced a depreciation of 2.55% (yoy). The trend also occurred in other regions, with Malaysian Ringgit, Vietnamese Dong, and Japanese Yen depreciating by 4.69%, 3.18%, and 3.11%, respectively (International Financial Statistics, 2023). In adjusting to global uncertainty, Bank Indonesia increased the benchmark interest rate to 6% on October 19, 2023, to stabilize the rupiah exchange rate.

(Tampubolon & Ibnu Abbas, 2022) explained that export values had a significant effect on stock price index. Increased exports lead to higher corporate profits and stock prices, while a consistent increase in share prices attracts foreign

capital (Arora & Akhtar, 2018). In addition, Sharia stock index constituents have a proportion of more than 50% of the total shares. These stocks are dominated by the non-primary goods industry sector, most of which are export-oriented. The industry consists of companies producing passenger cars and components, durable household goods, clothing, shoes, textile goods, sporting goods, and hobby goods. Tourism, recreation, education, consumer support, media companies, advertising, entertainment providers, and secondary goods retail companies are also provided.

CONCLUSION

In conclusion, four main results were reported in this research, namely (1) Islamic stock index responded positively to global EPU (2) Islamic stock index responded positively to exchange rate (3) Islamic stock index responded positively to exports, and (4) Islamic stock index responded negatively to inflation. This research contributed to filling the gap in previous results, concerning the contradictory reports on the effect of macroeconomic indicators on stock index. Furthermore, the research contributed to the scarcity of literature that analyzed Islamic stocks concerning EPU. The subsequent agenda could be in the form of a comparison of Islamic stock indices between countries on a regional scale. Further research could also compare the responses of Islamic stocks in developed and developing countries.

Concerning the implication, Islamic stock market in Indonesia remained a safe place to invest capital when there was an increase in EPU, specifically in developed countries. Investors did not carry out wrong analyses by conducting panic selling when faced with increasing global EPU. Instead, the proportion of share ownership was increased to obtain maximum returns. The results were also useful for policymakers in formulating policy to support and promote Islamic investment considering the strong resistance to EPU. Policy that could be promoted in the development of Islamic capital market was the development of securities through crowdfunding.

BIBLIOGRAPHY

Abid, A. (2020). Economic Policy Uncertainty and Exchange Rates in Emerging Markets: Short and Long Runs Evidence. *Finance Research Letters*, 37, 101378. https://doi.org/10.1016/j.frl.2019.101378.

- Ahmed, Z., Cary, M., Shahbaz, M., & Vo, X. V. (2021). Asymmetric Nexus between Economic Policy Uncertainty, Renewable Energy Technology Budgets, and Environmental Sustainability: Evidence from the United States. *Journal of Cleaner Production*, 313, 127723. https://doi.org/10.1016/j. jclepro.2021.127723.
- Ali, S., Shahzad, S. J. H., Raza, N., & Al-Yahyaee, K. H. (2018). Stock Market Efficiency: A Comparative Analysis of Islamic and Conventional Stock Markets. *Physica A: Statistical Mechanics and Its Applications*, 503, 139– 153. https://doi.org/10.1016/j.physa.2018.02.169.
- Altig, D., Baker, S. R., Barrero, J. M., Bloom, N., Bunn, P., Chen, S., Davis, S. J., Leather, J., Meyer, B. H., Mihaylov, E., Mizen, P., Parker, N. B., Renault, T., Smietanka, P., & Thwaites, G. (2020). Economic Uncertainty Before and During the Covid-19 Pandemic. *National Bureau of Economic Research Working Paper Series Economic No. 27418.*
- Andrei, D. M., & Andrei, L. C. (2015). Vector Error Correction Model in Explaining the Association of Some Macroeconomic Variables in Romania. *Procedia Economics and Finance*, 22, 568–576. https://doi.org/10.1016/s2212-5671(15)00261-0.
- Arora, S., & Akhtar, A. (2018). The Relationship between Exchange Rate & Stock Prices: Evidence from the Indian Market. *Review of Professional Management*, 16(1), 44–49. 10.20968/rpm/2018/v16/i1/129255.
- Atri, H., Kouki, S., & Gallali, M. I. (2021). The Impact of COVID-19 News, Panic and Media Coverage on the Oil and Gold Prices: An ARDL Approach. *Resources Policy*, 72, 102061. https://doi.org/10.1016/j.resourpol.2021.102061.
- Aziz, T., Marwat, J., Mustafa, S., & Kumar, V. (2020). Impact of Economic Policy Uncertainty and Macroeconomic Factors on Stock Market Volatility: Evidence from Islamic Indices. *Journal of Asian Finance, Economics and Business*, 7(12), 683–692. https://doi.org/ 10.13106/jafeb.2020.vol7.no12.683.
- Baker, S. R., Bloom, N., & Davis, S. J. (2016). Measuring Economic Policy Uncertainty. *The Quarterly Journal of Economics*, 131(4), 1593–1636, https://doi.org/10.1093/qje/qjw024.
- Beckmann, J., & Czudaj, R. (2017). Exchange Rate Expectations and Economic Policy Uncertainty. *European Journal of Political Economy*, 47, 148–162.

https://doi.org/10.1016/j.ejpoleco.2016.06.003.

- Bhattarai, S., Chatterjee, A., & Park, W. Y. (2020). Global Spillover Effects of US Uncertainty. *Journal of Monetary Economics*, 114, 71–89. https://doi. org/10.1016/j.jmoneco.2019.05.008.
- Cashin, P., Mohaddes, K., & Raissi, M. (2017). China's Slowdown and Global Financial Market Volatility: Is World Growth Losing Out? *Emerging Markets Review*, 31, 164–175. https://doi.org/10.1016/j.ememar.2017.05.001.
- Christou, C., Cunado, J., Gupta, R., & Hassapis, C. (2017). Economic Policy Uncertainty and Stock Market Returns in PacificRim Countries: Evidence based on a Bayesian Panel VAR Model. *Journal of Multinational Financial Management*, 40, 92–102. https://doi.org/10.1016/j.mulfin.2017.03.001.
- Dai, P. F., Xiong, X., Liu, Z., Huynh, T. L. D., & Sun, J. (2021). Preventing crash in stock market: The role of economic policy uncertainty during COVID-19. *Financial Innovation*, 7(1). 1-15. https://doi.org/10.1186/s40854-021-00248-y.
- Dai, P. F., Xiong, X., & Zhou, W. X. (2021). A Global Economic Policy Uncertainty Index from Principal Component Analysis. *Finance Research Letters*, 40, 1-5.. https://doi.org/10.1016/j.frl.2020.101686.
- Erdoğan, S., Gedikli, A., & Çevik, E. İ. (2020). Volatility Spillover Effects between Islamic Stock Markets and Exchange Rates: Evidence from Three Emerging Countries. *Borsa Istanbul Review*, 20(4), 322–333. https://doi.org/10.1016/j. bir.2020.04.003.
- Fang, L., Chen, B., Yu, H., & Xiong, C. (2018). The Effect of Economic Policy Uncertainty on the Long-run Correlation between Crude Oil and the U.S. Stock Markets. *Finance Research Letters*, 24, 199–220. https://doi.org/10.1016/j. frl.2017.07.007.
- Gilal, M. A. (2019). Economic Policy Uncertainty and Stock Market Returns in Indonesia. *Finance Research Letters*, 15, 99–105. https://doi.org/10.1016/j. frl.2015.08.009.
- Goodell, J. W., McGee, R. J., & McGroarty, F. (2020). Election Uncertainty, Economic Policy Uncertainty and Financial Market Uncertainty: A Prediction Market Analysis. *Journal of Banking and Finance*, *110*, 105684. https://doi. org/10.1016/j.jbankfin.2019.105684.

- Gu, X., Cheng, X., Zhu, Z., & Deng, X. (2021). Economic Policy Uncertainty and China's Growth-at-risk. *Economic Analysis and Policy*, 70(16), 452–467. https://doi.org/10.1016/j.eap.2021.03.006.
- He, F., Wang, Z., & Yin, L. (2020). Asymmetric Volatility Spillovers between International Economic Policy Uncertainty and the U.S. Stock Market. North American Journal of Economics and Finance, 51, 101084. https://doi. org/10.1016/j.najef.2019.101084.
- Hudaifah, A., & Ajija, S. R. (2016). A Comparative Study on Poverty Alleviation between Moslem and Non Moslem Populated Countries. *Al-Iqtishad: Journal* of Islamic Economics, 9(1), 143–164. https://doi.org/10.15408/aiq.v9i1.3222.
- Istiak, K., & Alam, M. R. (2020). US Economic Policy Uncertainty Spillover on the Stock Markets of the GCC Countries. *Journal of Economic Studies*, 47(1), 36–50. https://doi.org/10.1108/JES-11-2018-0388.
- Jamaani, F., & Roca, E. (2015). Are the Regional Gulf Stock Markets Weakform Efficient As Single Stock Markets and As A Regional Stock Market? *Research in International Business and Finance*, 33, 221–246. https://doi. org/10.1016/j.ribaf.2014.09.001.
- Jamaludin, N., Ismail, S., & Ab Manaf, S. (2017). Macroeconomic Variables and Stock Market Returns: Panel Analysis from Selected ASEAN Countries. *International Journal of Economics and Financial Issues*, 7(1), 37–45.
- Kumar, A., Priya, B., & Srivastava, S. K. (2021). Response to the COVID-19: Understanding Implications of Government Lockdown Policies. *Journal of Policy Modeling*, 43(1), 76–94. https://doi.org/10.1016/j. jpolmod.2020.09.001.
- Lei, A. C. H., & Song, C. (2022). Economic Policy Uncertainty and Stock Market Activity: Evidence from China. *Global Finance Journal*, 52, 100581. https:// doi.org/10.1016/j.gfj.2020.100581.
- Li, X. M., & Peng, L. (2017). US Economic Policy Uncertainty and Co-movements between Chinese and US Stock Markets. *Economic Modelling*, 61, 27–39. https://doi.org/10.1016/j.econmod.2016.11.019.
- MacChiarelli, C., Naisbitt, B., Boshoff, J., Holland, D., Hurst, I., Liadze, I., Mao, X., Juanino, P. S., Thamotheram, C., & Whyte, K. (2021). *Global Economic Outlook: Slowing Growth, Rising Inflation Fears*. National Institute of

Economic and Social Research. 258, https://doi.org/10.1017/nie.2021.45.

- Mariotti, S. (2022). A Warning from the Russian–Ukrainian War: Avoiding A Future that Rhymes with the Past. *Journal of Industrial and Business Economics*, 49(4), 761–782. https://doi.org/10.1007/s40812-022-00219-z.
- Permana, F. C., Irfan, M. A., Ilham, M. F., & Rodoni, A. (2023). Volatility Transmission In Indonesia's Conventional and Sharia Stocks Market Index. *Proceedings of the 3rd International Conference of Islamic Finance and Business, ICIFEB* 2022, 19-20 July 2022, Jakarta, Indonesia. https://doi.org/10.4108/eai.19-7-2022.2328221.
- Ren, X., Shao, Q., & Zhong, R. (2020). Nexus between Green Finance, Non-fossil Energy Use, and Carbon Intensity: Empirical Evidence from China based on A Vector Error Correction Model. *Journal of Cleaner Production*, 277, 122844. https://doi.org/10.1016/j.jclepro.2020.122844.
- Shen, H., Hou, F., Peng, M., Xiong, H., & Zuo, H. (2021). Economic Policy Uncertainty and Corporate Tax Avoidance: Evidence from China. *Pacific Basin Finance Journal*, 65, 101500. https://doi.org/10.1016/j.pacfin.2021.101500.
- Suharsono, A., Aziza, A., & Pramesti, W. (2017). Comparison of Vector Autoregressive (VAR) and Vector Error Correction Models (VECM) for Index of ASEAN Stock Price. *AIP Conference Proceedings*, 1913. https:// doi.org/10.1063/1.5016666.
- Tampubolon, V. A., & Ibnu Abbas, M. H. (2022). Pengaruh Nilai Tukar dan Ekspor terhadap Harga Saham Perbankan Sebelum dan Setelah Pengumuman Covid-19. *Fair Value: Jurnal Ilmiah Akuntansi dan Keuangan*, 4(8), 3534– 3547. https://doi.org/10.32670/fairvalue.v4i8.1458.
- Tulasmi, T., & Trihariyanto, R. R. (2016). Performance of Islamic Stocks Index: Comparative Studies Between Indonesia and Malaysia. *Signifikan: Jurnal Ilmu Ekonomi*, 5(1), 69–82. https://doi.org/10.15408/sjie.v5i1.3127.
- Yu, X., & Huang, Y. (2021). The Impact of Economic Policy Uncertainty on Stock Volatility: Evidence from GARCH–MIDAS Approach. *Physica A: Statistical Mechanics and Its Applications*, 570, 125794. https://doi.org/10.1016/j. physa.2021.125794.