

The Determinants of Islamic Capital Markets Performance in Asia Pacific Countries: Is the Global Islamic Capital Market Important?

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Abstract

Research aims: This study was aimed to determine the impact of inflation and exchange rates on capital market performance as reflected in Sharia Stock Index and the role of global Sharia capital market as reflected in Dow Jones Sharia Index as a moderator variable.

Design/methodology/approach: This study used associative research. The population of this study consist of 244 Islamic capital markets in Asia Pacific countries; the sample size for this study was 10. The sampling technique used purposive sampling; while moderating regression analysis (MRA) was used in data analysis to test the hypothesis.

Research findings: the results of the analysis found that the global sharia stock index can significantly moderate the relationship between inflation and the sharia stock index in Asia Pacific countries. This moderation is negative, meaning that the global sharia stock index weakens this relationship. The global sharia stock index can insignificantly moderate the relationship between the exchange rate and the sharia stock index in Asia Pacific countries.

Theoretical contribution/originality: These findings can be used as a reference for the capital market to attract investors. Particularly by taking into account the macroeconomic conditions and stock prices applicable to the global Dow Jones index.

Research limitations/implications: This study was conducted only for Asia Pacific Shariah Stock Index, that only have very limited complete reports.

Keywords: Islamic capital market performance; Global Islamic Capital Market Inflation; exchange rate.

Introduction

The capital market is very important for economic life in a country; means that it can bring issuers and investors together. For national economic life, the capital market plays a crucial role as a link between parties that need capital and parties that have excess capital. This activity is expected to improve business and national economies worldwide. Therefore, the capital market must be fair, liquid, efficient and transparent.

Multiple global indexes that cannot be separated from the capital market are the Dow Jones Index; as a trading standard, particularly countries in Asia-Pacific region. Riantan

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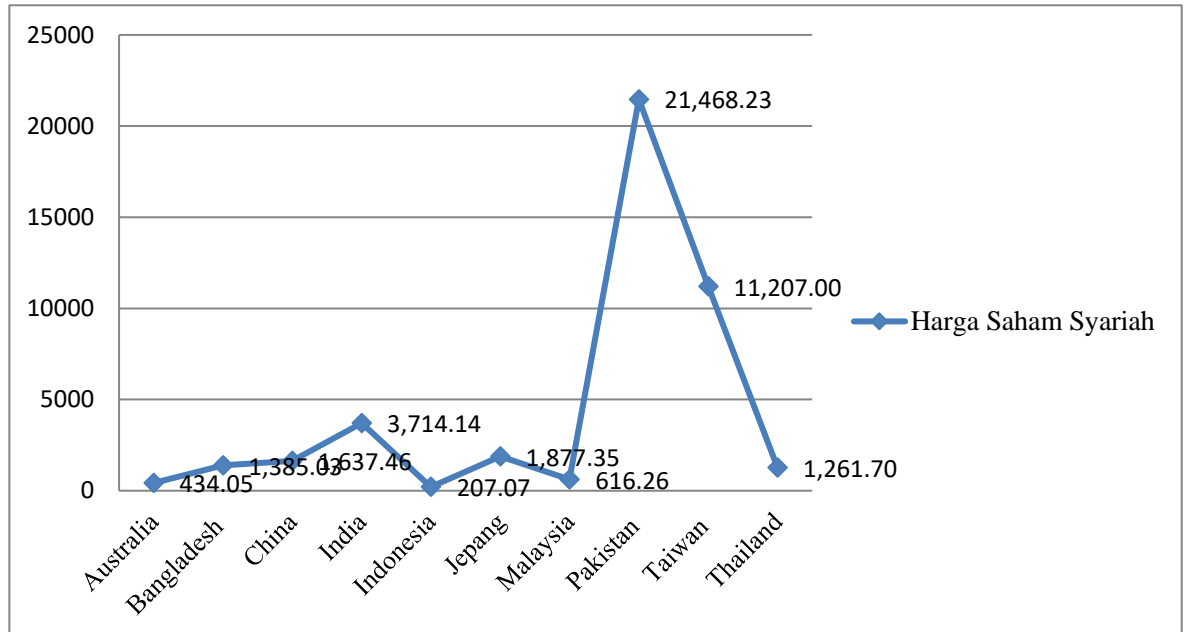
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(2013) explained that any change in Dow Jones Index give impact on the stock prices. For Islamic economics, the global capital market that serves as a reference is Dow Jones Islamic Market Index (DJIM). In the context of Shariah activities, Shariah investments play a crucial role in developing the Shariah financing as well as reducing inflationary pressures and promoting tax savings.

For a general overview of Sharia stock prices in Asia Pacific countries, look at the chart below.

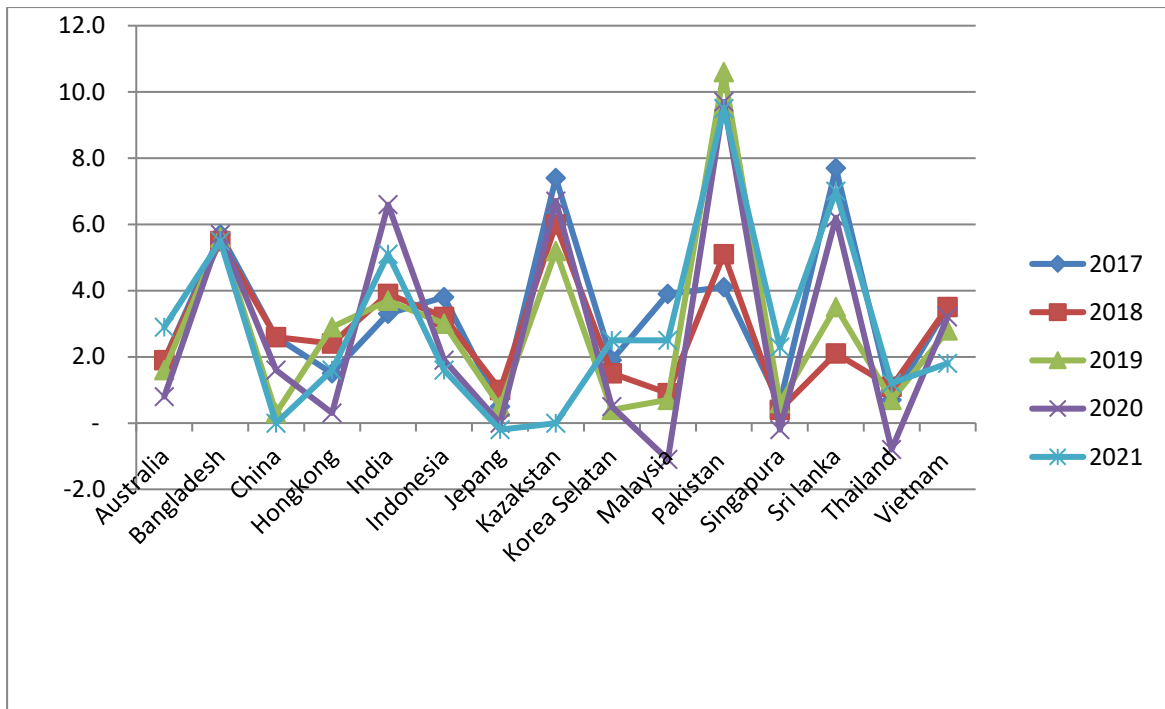


Source: Investing, 2022

Figure 1. Sharia stock prices in Asia Pacific

Figure 1 shows that Sharia stock price index generally fluctuates in Asia-Pacific countries. The highest share price was 21,468.23 (Pakistan), while the lowest share price was 207.07 in Indonesia. The state of Sharia stock prices is influenced by many factors, including macroeconomic conditions (Kewal, 2012).

Kewal (2012) stated that inflation is one of the factors affecting Sharia stock index. High and uncontrolled inflation can disrupt the economy as it can reduce people's purchasing power. Consequently, the company's financial performance becomes negative and affects the decline in company's stock price (Masrizal et al, 2019). For a general overview of inflation, see the figure below.



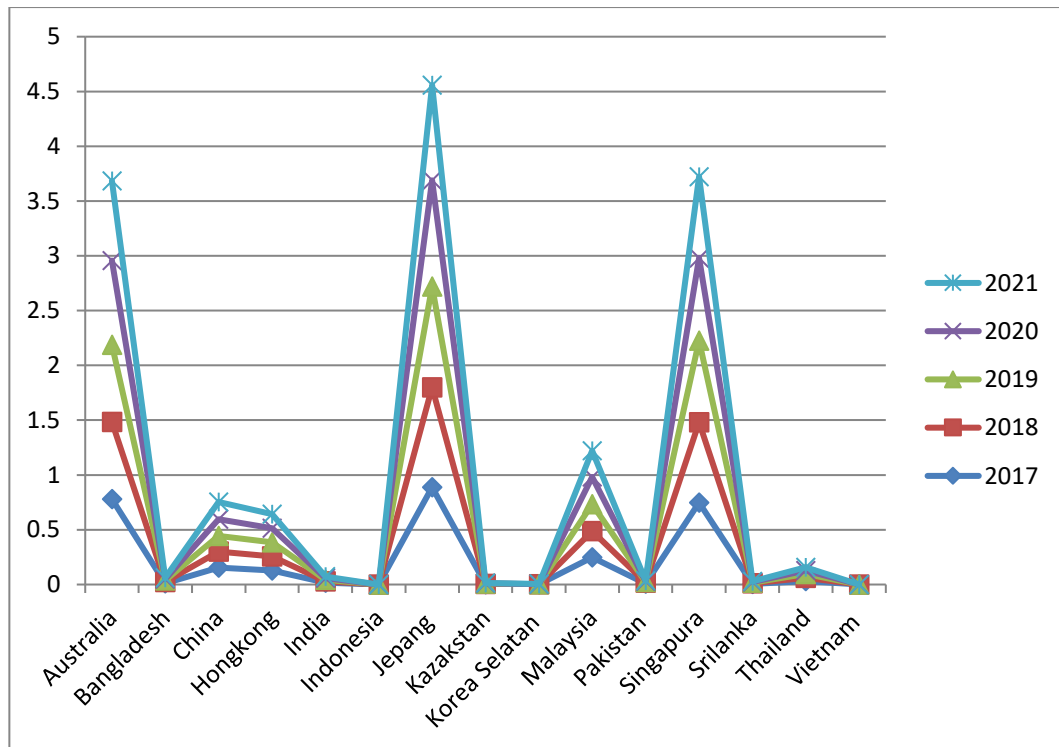
Source: World Bank data, 2022

Figure 2. Inflation in Asia-Pacific countries (2017-2021)

According to Figure 2, it can be described as the highest inflation in 2019, 2020 and 2021 was in Bangladesh. Then Sri Lanka and Kazakhstan followed. Malaysia and Thailand are now among the countries with negative inflation rates in 2020. These two conditions are basically under situation that economy is less favorable. Negative inflation indicates that economic conditions are anything but positive.

In addition to inflation, another macro condition that can affect Sharia stock index is the exchange rate. Ash-Shiddiqy (2019) explained the strength of the domestic exchange rate against foreign currencies that reflects the economic situation of a country. Jubaedah et al. (2019) proved that the exchange rate is one of the factors that can impact the development and movement of stocks. It can be further explained that if the exchange rate falls or depreciates, there is a risk of an increase in raw material prices due to inflation due to shifts in the exchange rate. Therefore, the impact will be that a company's costs will increase and it will incur more costs. It leads to the downfall of the company; where this situation will encourage investors to sell their stocks, causing a decline in stock prices, that will be reflected in the stock price index then.

The overview of the exchange rates can be found in this following table.



Source: Investing (2022)

Figure 3. Exchange rates of Asia-Pacific countries against the USD

Figure 3 shows the evolution of exchange rates of Asia-Pacific countries against the USD. Australia, Japan and Singapore are among the countries whose exchange rates have increased significantly. Unlike Vietnam, Thailand, South Korea, Kazakhstan, Indonesia, India, Bankladesh, Sri Lanka and Pakistan who were depressed due to the appreciation of the USD against their currencies.

Literature Review

Market Efficiency Theory

In general, market efficiency theory is a theory that explains the price or value of securities that fully reflecting available information. More broadly, the concept of market efficiency is about determining the price or value of securities based on some informations, particularly about how the market responds to available information and the extent to where information can influence new stock price movements. The connection between market efficiency and information refers to the availability of price or security value information; that reflect the information and can be obtained easily and quickly (Fawwaz, 2016). The market is considered efficient when information about stock values enters the market and allows the new equilibrium price to shift. Market efficiency can be achieved when the market reacts quickly and accurately on this information and forms a new equilibrium price (Hartono, 2013).

Sharia Capital Market

The sharia capital market is activities related to public offerings and trading of securities, public companies related to securities issued as well as institutions and professions related to securities that carry out their activities in accordance with Islamic Sharia principles. Islamic sharia principles are principles based on Islamic sharia teachings which are determined by the DSN-MUI through fatwas (Soemitra, 2015).

There are several factors that influence the sharia stock index; namely inflation (Maulana and Maris, 2021; Astuti, 2021; Rahmawati and Bainsi, 2019; Kamal and Kasmawati, 2021; Astuti and Valianti, 2022; Sukmayadi and Nur, 2020), exchange rate (Astuti and Valianti, 2022; Maulana and Maris, 2021; Rahmawati and Bainsi, 2019; Kamal and Kasmawati, 2021), BI Rate (Maulana and Maris, 2021; Astuti and Valianti, 2022) and foreign capital markets (Astuti, 2021; Djazuli et al. 2021)

Inflation

Inflation is a macroeconomic indicator that affects a company's financial performance; it can occur when economic conditions are unstable. It is the tendency to generally and continuously increase the prices of goods and services (Natsir, 2014). It is measured by the consumer price index, that reflects the annual percentage change in the average cost to consumers of purchasing goods and services that can be repaired or replaced at certain intervals for each year (Datacatalog.worldbank.org, 2022). It has a negative impact on a stock market; considered a bad condition for the stock market as it can reflect a poor economy in the country, making investors feel uncomfortable while investing their money in the stock market (Khan, 2012).

Exchange Rate

The exchange rate, or more commonly known as the exchange rate, is a record of the market price for foreign currency in relation with the price of national currency or its reciprocal; namely the price of the national currency in foreign currency. The monetary exchange rate represents the level of exchange rates from one currency to another and used in various transactions; including: international trade transactions, tourism, international investment or short-term flows of funds among countries that cross geographical boundaries or borders. As well as other prices in economy that are determined by the interaction of buyers and sellers, the exchange rate used for international transactions is also formed by the interaction of economic agents; it can also be defined as the amount of domestic money required to obtain a unit of currency of foreign money (Sukirno, 2016).

Methodology

This study used associative research that conducted to determine the relationship or influence between the independent and dependent variable.

According to Etikan and Babatope (2019), a population is a group of individuals, objects, or entities with the same characteristics. In line with this opinion, the population of this study includes all 244 Sharia stock indexes in Asia Pacific countries. The sample defined as representative of the population (Etikan and Babatope, 2019). The sampling technique used was purposive sampling. Therefore, it was concluded that the number of samples used was 10 Sharia stock indices.

Table 1. Research Sample

N	Sharia Stock Index Name	symbol	country
1	DSEX Sharia	DSES	Bangladesh
2	Dow Jones Islamic Market China	DJICHKU	China
3	DowJones Islamic MarketIndia USD	DJIMIND	India
4	IDX Sharia	JKISSI	Indonesia
5	Dow Jones Islamic Market Japan Index	DJIJP	Japan
6	Dow Jones Islamic World Malaysia Index	DJMY25D	Malaysia

7	Saba ShariahCompliant Industrial Real Estate Investment Trust	SADA	Singapore
8th	FTSE TWSE Taiwan Sharia	FTTWSH	Taiwan
9	All Shares Islamic Index of Pakistan	KMIAS	Pakistan
10	FTSE SET Sharia	FTFSTSH	Thailand

This study used the variable regression analysis application MRA (Moderating Regression Analysis) as the hypothesis testing. According to Ghozali (2018), MRA test was aimed to control the influence of moderating variables through an analytical approach that maintains the integrity of research sample. In this study, the MRA was used to test the moderating variable, namely the Global Sharia Stock Index (ISSG), in the relationship between inflation and exchange rates of Sharia stock index. The way to test regression with MRA moderating variable or interaction test is with a special application for linear regression in the regression equation that contains an interaction element (multiplication of 2 or more independent variables).

Results

The moderated regression analysis (MRA) conducted by the researcher was on the inflation variable (X1), the exchange rate variable (X2) of the Sharia stock index (Y) moderated by the Dow Jones Islamic Market World (DJIMI) (Z). The results of MRA analysis can be seen in the following table:

Table 2. MRA Test Results for Inflation Variables

Model		Non-standardized coefficients		Standardized coefficients	T	Sig.
		b	Hour error	beta		
1	(Constant)	3,093	,256		12,083	,000
	Inf	-.043	.055	-.114	-.793	,432
2	(Constant)	,336	6,194		.054	.957
	Inf	-.050	.057	-.131	-.876	,385
	DJIMI	.761	1,709	.067	,446	.658
3	(Constant)	-19,244	9,042		-2,128	.039
	Inf	6,198	2,219	16,202	2,793	.008
	DJIMI	6,075	2,470	,533	2,459	.018
	Interaction 1	-1,684	.598	-16,468	-2,817	.007

Source: Data processed by the author (2023)

Table 1 above can be described in the form of the following MRA model:

$$Y = \alpha + \beta_1 \text{Inf} + \beta_2 \text{DJIMI} + \beta_3 \text{inf} * \text{DJIMI}$$

$$Y = -19,244 + 6,198\text{Inf} + 6,075\text{DJIMI} - 1,684\text{inf} * \text{DJIMI}$$

The explanation of MRA test results in Table 1 as follows:

1. Model 1 shows that inflation has a negative and insignificant impact on Sharia Stock Index. It shows that the Sharia stock index will decrease when inflation increases. However, individual changes in inflation will not have a significant impact on the changes in Sharia stock index.

2. Model 2 shows that inflation and Dow Jones Sharia Index are analyzed simultaneously. The result shows that inflation has a negative and insignificant impact. Likewise, Dow Jones Sharia Index is not significant and positive relative to Sharia Stock Index in Asia Pacific countries.

3. Model 3 shows that inflation, Dow Jones Sharia Index and interaction of these two variables were analyzed together. The results show that inflation, Dow Jones Sharia Index and their interactions have significant influence. Inflation and Dow Jones Sharia Index show a positive slope. Meanwhile, interactions have a negative perspective. It shows that Dow Jones Sharia Index as a moderating variable significantly weakens the relationship between inflation and Sharia stock index. This moderation called as pseudo-moderation.

The second moderation can be presented in the following table.

Table 3. Results of Exchange Rate MRA Test

Model		Non-standardized coefficients		Standardized coefficients	T	Sig.
		b	Hour error	beta		
1	(Constant)	3,378	,185		18,251	,000
	exchange rate	-2,005	,483	-.514	-4,153	,000
2	(Constant)	2,028	5,203		.390	.699
	exchange rate	-2,005	.487	-.514	-4,113	,000
	DJIMI	.370	1,424	.032	,260	.796
3	(Constant)	2,028	6,356		,319	.751
	exchange rate	-2,007	16,744	-.515	-.120	,905
	DJIMI	.370	1,740	.032	,212	.833
	Moderation_2	.001	4,583	.001	,000	1,000

Source: Data processed by the author (2023)

Table 1 above can be described in the form of the following MRA model:

$$Y = \alpha + \beta_1 \text{kurs} + \beta_2 \text{DJIMI} + \beta_3 \text{kurs} * \text{DJIMI}$$

$$Y = 2,028 - 2,007 \text{kurs} + 370 \text{DJIMI} + 0.001 \text{kurs} * \text{DJIMI}$$

The explanation of MRA test results in Table 2 as follows:

1. Model 1 shows that the exchange rate has a negative and insignificant impact on the Sharia Stock Index. It shows that Shariah stock index will decrease when the exchange rate increases. However, the changes in individual exchange rates will not have a significant impact on the changes in Sharia stock index.

2. Model 2 shows that the exchange rate and Dow Jones Sharia Index are analyzed simultaneously. The result shows the exchange rate has a negative and insignificant impact. Likewise, Dow Jones Sharia Index is not significant and positive relative to the Sharia Stock Index in Asia Pacific countries.

3. Model 3 shows that the exchange rate, Dow Jones Sharia Index and interaction of these two variables were analyzed together. The results show that exchange rate, Dow Jones Sharia Index and interactions do not have any significant influence. Dow Jones Sharia Index and interactions show a positive result; while the exchange rate shows a negative result. It shows that Dow Jones Sharia Index as a moderating variable does not significantly strengthen the relationship between the exchange rate and the Sharia stock index.

Discussion

The Influence of Sharia Stock Index moderated by Global Sharia Stock Index

According to partial tests (T-test), the results showed the t-value is $-0.793 < 1.677$ t-table and the significant value is $0.432 > 0.05$ (not significant). It means that the inflation variable had no impact and not significant for Asia Pacific Sharia Stock Index.

It is not in line with the Arbitrage Pricing Theory (APT) that explains inflation as one of the influencing factors on stock prices; since inflation has no effect on sharia stock index. The inflation rate is something cannot be controlled, since the changing economic conditions are something that cannot be controlled. However, in terms of decisions, investors have other considerations as changes in a country's economy progress.

This results are in line with study by Astuti and Valianti (2022); that inflation variable has no significant effect on Indonesian Sharia Stock Index (ISSI). However, it is not in line with Maulana and Maris (2021); who stated that inflation has a significant effect on Indonesian Sharia Stock Index (ISSI).

The results showed that the moderating variable of Global Sharia Stock Index (DJIMI) has negative and significant effect for t-count as $-2.817 > 1.677$ t-table; and the significant value is $0.007 < 0.05$. MRA test results showed that the influence of inflation on Global Sharia Stock Index (DJIMI) is negative and significant. A change in Dow Jones Islamic Market World (DJIMI) will affect sharia stock index in Asia Pacific. This implication means that Dow Jones Islamic Market World (DJIMI) will strengthens the influence of inflation on Sharia Stock Index in Asia Pacific.

The results on this study are in line with Djazuli et al (2021); stated that moderation equation 1 (Inflation) interacting with Dow Jones sharia market index will have a positive influence on Indonesian sharia stock index. It is also in line with Arbitrage Pricing Theory (APT) that explains inflation as one of the factors that can influence share prices and can affect the condition of a company.

The Effect of Exchange Rates on Sharia Stock Index Moderated by Global Sharia Stock Index

Based on the results, the exchange rate variable has a negative and significant effect with a calculated t-value as $-4.153 > 1.677$ t-table; and the significance level for the exchange rate variable as $0.000 < 0.05$ (significant). It means that the exchange rate has a negative and significant effect on sharia stock index in Asia Pacific; a change in exchange rate will be followed by an increase in Sharia Stock Index in Asia Pacific.

The results are in line with Rahmawati and Baini's (2019); stated that exchange rate variable has negative effect on Indonesian Sharia Stock Index (ISSI). In line with theory by Mishkin Frederic (2008); if a country's currency appreciates (its value rises relative to other currencies), products from the country in abroad will become more expensive and

foreign products in that country will become cheaper. Conversely, if a country's currency depreciates, the country's products become cheaper and foreign products become more expensive. It is also in line with Arbitrage Pricing Theory (APT) that explains the exchange rate is one of the factors that can influence the share prices and company operational activities.

The increasing in the exchange rate will raise judgment in investors; that the shares in sharia stock index experienced an increasing in demand and sales. Then many investors will be interested and invest their capital in companies; the demand for sharia stock will increase.

The results showed that the moderating variable of global sharia stock index (DJIMI) has no significant effect with a t-value as $0.000 < 1.677$ t-table and a significant level of the exchange rate variable as $1,000 > 0.05$ (not significant).

The MRA test showed that the effect of exchange rate on Global Sharia Stock Index (DJIMI) is negative and significant. The influence of Exchange Rate on Global Sharia Stock Index (DJIMI) is un-influence and insignificant. As the implication that Dow Jones Islamic Market World (DJIMI) will weaken the influence of Exchange Rate on Sharia Stock Index in Asia Pacific. It is not in line with Arbitrage Pricing Theory (APT) that explains the exchange rate is one of the factors that influence stock prices, since the exchange rate has no effect on sharia stock index.

The results are not in line with Djazuli et al (2021), in the moderation equation 2 (exchange rate) that interacts with Dow Jones sharia market index and has a positive influence on Indonesian sharia stock index.

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