Dynamic of Foreign Direct Investment (FDI) Relationship, Macroeconomic Stability and Return of Shares Index in Four Asen Countries

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ABSTRACT

Southeast Asian countries are looking forward to capital market integration. The presence of this momentum requires stable economic conditions in each country and an attractive capital market. This momentum is also an opportunity for the Istamic capital market to be further developed in this region. This study aims to examine the effects of Foreign Direct Investment (FDI) and macroeconomic variables, namely economic growth, inflation, reference interest rates and exchange rates on the return of the Islamic stock index in four ASEAN countries, namely Indonesia, Malaysia, Thailand and Singapore. The research period since four quarter of 2006 until the first quarter of 2020. The method used in empirical evidence in this study is the Autoregressive Distributed Lag Bounds Testing Approach (ARDL). This study found a long-term co-integration relationship in all research object countries. In terms of long-term relationships and short-term dynamics, this study finds variations in yield and direction coefficients in 4 ASEAN countries. The speed of readjustment of balance in case of shocks, respectively, is 44.7%, 65.4%, 43.5% and 50.0% per month. **Keywords:** foreign direct investment (FDI), economic growth, inflation, reference interest rates, exchange rates, ARDL.

A. INTRODUCTION

The stock market plays a very important role both for investors and companies in equity financing and portfolio management decisions. The stock market provides a place where investors can invest their excess funds in companies they are interested in (Kahn et al. 2017). An efficient capital market is a capital market whose securities prices reflect new information quickly, so that the price formed on the capital market is a reflection of emerging information. According to Fama (1970), in the efficient market hypothesis (Efficient Market Hypothesis) in a semi-strong efficient market, share price must becontains relevant and publicly available information, and has implications for policy makers and stock brokerage firms (Maysami et al., 2004). Still according to Maysami et al. (2004), the government, in this case the national macroeconomic policy maker, should not be afraid that the policies taken will affect the stock transaction process in the capital market.

The relationship between the stock market index and macroeconomic variables has received much interest from researchers, investors and policy makers. However, until a long time there has not been a general agreement regarding which variables have a direct influence on the stock market index. For investors such as retail investors or institutional investors, knowing the relationship between macroeconomic variables and the stock market can help them predict stock price movements accurately, while for government sectors such as policy makers, it is important for them to identify the relationship between the stock market and macroeconomic variables due to government. can use the stock market as an indicator of economic development (Khong et al., 2019).

The development of the stock market is not only important in the economic development of a country, but also an important indicator of future economic activity and the economic strength of a country (Umar & Ibrahim, 2014). The devastation of the world economy due to the global financial crisis that occurred in 2007–2008 had a major impact on the world stock market industry. At that time, an Islamic economy-based financial system was more resilient to crisis fluctuations. Many things have made the Islamic economic system, be it Islamic banking or Islamic securities persist in the global financial crisis, such as placing investment in the real sector and avoiding speculation such as derivatives, which many analysts believe caused a financial crisis that affected conventional banks (Hussein Elasrag, 2010).

ASEAN countries which include Indonesia, Malaysia, the Philippines, Singapore, Thailand, Vietnam, Brunei Darussalam, Laos, Myanmar and Cambodia are the most dynamic economic regions in the world.



Source: US ASEAN Business Council

Picture 1. Graph of ASEAN and Regional Economic Strength

Figure 1 shows that the ASEAN region has economic growth that is in the top three compared to other regions in the Asia Pacific. Some of these Southeast Asian countries performed well in part of the Asian "miracle" that economists and policymakers around the world have studied well. The ASEAN region accounts for about 7.5 percent of the world's population and is part of the fast growing world production. As a result of strong and sustained economic growth since 1970, Singapore has now joined the rich industrial nations. On the other

hand, Indonesia, Malaysia and Thailand have seen real per capita income increases more than threefold during this period. Recently, the Philippines has also experienced an increase in its growth rate closer to that of other countries in the region (IMF, 1997).

Many macroeconomic factors studied by previous researchers have a relationship with the stock market index, for example economic growth, inflation, interest rates, exchange rates, and others. Gan et al. (2006) conducted research on the New Zealand Stock Market Index (NZSE40), they found that in general the NZSE40 was consistently determined by the interest rate, money supply and real GDP and there was no evidence that the New Zealand Stock Index was the main indicator for changes in macroeconomic variables. Khong et al. (2019) revealed that foreign (non-domestic) macroeconomic variables and domestic macroeconomic variables have a long-term relationship with the Malaysia Stock Exchange Index (KLCI) and are significant. Furthermore, this study investigates the short-term relationship with the results showing that gold,

The relationship between foreign direct investment, macroeconomic stability and stock market development is an interesting topic for researchers in recent years. According to Adam and Tweneboah (2009), the development of the stock market is manifested in the development of the financial sector in general, in other words, the development of the stock market complements other parts of the financial system. Levine and Zervos (1998) say that the development of the stock market can describe the future economic growth of a country. When the stock market is developed, the aspect of market capitalization as the most common indicator according to (Jeffus, 2004) will increase significantly. There are two sides that are implied when market capitalization increases, namely the increase in the number of companies participating in the stock market while on the other hand, namely the increase in the company. This increase (especially in developing countries) requires new capital flows, transfer of new technology and skills, innovative projects and new managerial techniques (Tsagkanos and Vartholomatou, 2019).

Developing countries that have economic stability are certainly good choices for foreign investors. A stable economic condition will reduce the risk of foreign investors and provide a return that is in line with expectations as the investment progresses. Economic turmoil will certainly bring a lot of speculation on the future of an investment, countries such as Hong Kong which are experiencing a political crisis have resulted in economic turmoil that is prone to recession, then in England, it is currently in an unstable condition from the murky brexit issue. The feud between the United States and China has contributed to destroying the economies of developed countries such as Japan, because of the dependence on exports to the two hostile countries, Japan will feel the bad impact. The same thing is felt by developed countries such as Singapore, Singapore's economic growth has slowed down drastically since 2019. Opportunities like this are certainly a good opportunity for countries like Indonesia and Malaysia to seize the market for foreign investors who have flocked to move from countries experiencing economic instability as mentioned above. Therefore, it is very important to maintain economic stability in order to gain momentum as a destination country for investment by foreign investors. In addition, there is a lot of empirical evidence which says that economic variables macro and government policies have an impact on the stock index. According to Gen et al. (2006), anecdotal evidence from the financial press suggests that investors generally believe that monetary policy and macroeconomic events have a major influence on stock price volatility. This implies that macroeconomic variables can influence investors' investment decisions and motivates many researchers to investigate the relationship between stock returns and macroeconomic variables. According to Syahrir (1995) fluctuations in the Islamic stock index can also be caused by macroeconomic and monetary policies taken by the government, such as interest rates, Bank Indonesia Sharia Certificates, inflation, exchange rates, money supply, GDP, current account balance and others. Meanwhile, internal factors that can influence are such as national economic conditions, security, political conditions, government policies and others. According to Tandelilin (2010: 341), changes that occur in macroeconomic factors such as inflation, interest rates and currency exchange rates will be responded to by the stock market so that these factors have the potential to influence the formation of stock prices.

B. LITERATURE STUDY

Several studies have investigated the impact of Foreign Direct Investment (FDI) and macroeconomic stability on stock market development (Adam & Tweneboah, 2009; Garacia & Liu, 1999; Yartey, 2008). Adam and Tweneboah (2009) examined the relationship between FDI and the development of the stock market in Ghana, with the result that FDI has a significant positive effect in Ghana using the impulse response model and the Variant Decomposition of VECM. Gupta, Kalra and Bagga (2013) say that FDI is significantly correlated with the stock market in India. In Greece there isTsagkanosandVartholomatou(2019) also stated that FDI in the full period in Greece from 1988-2014 was significantly weak against the development of the stock market, but during the 1988-2001 sub-period it was significantly strong and the 2002-2014 sub-period was insignificant. Halalmeh and Sayah (2010) state that FDI has a significant positive effect on the stock market value in Jordan. According to Topaloglu et al. (2019) reported that FDI has a negative and insignificant effect on stock market returns, for their study in E7 countries ((Brazil, China, Indonesia, India, Mexico, Russia, Turkey) for the period 2005 to 2016 using panel data analysis. et al. (2016) also reported that FDI did not have a significant impact on stock market developments in Nigeria.

C. RESEARCH METHODOLOGY

This research is a type of explanative research, namely to analyze the relationship between FDI and macroeconomic variables on the movement of the Islamic stock market index over time, using the Autoregressive Distributed Lag (ARDL) Bounds Testing approach. ARDL Bound Testing was introduced by Pesar and Shin in 1999, then further developed by Pesar, Shin and Smith in 2001. According to Nyasha, Sheilla; Odhiambo, Nicholas M. (2015) ARDL Bound Testing approach has several advantages over previous cointegration tests, such as residue-based techniques by Engle and Granger (1987) and Full Maximum Likelihood (FML) by Johansen (1988; 1991) and Johansen and Juselius (1990).

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First, the ARDL approach is different from the requirements in the previous conventional cointegration test which requires the research variables to be stationary in the same order. In other words, the ARDL approach can be applied even though the research variables are stationary at the level [I(0)] and first difference [I(1)] or a mixture of both. Second, the ARDL model can be used with limited or small sample data and can still provide strong and efficient results related to cointegration analysis (Pesar et al., 2000). Third, while the conventional cointegration method estimates the long-term relationship in the context of a system of equations, the ARDL method uses only one reduced form equation (Pesar & Shin, 1999) so that it is simpler. Fourth, ARDL techniques generally present an unbiased estimate of the long-term model and valid t-statistics, even when some of the regressors are endogenous (Odhiambo, 2008; Odhiambo, 2011). Fifth, the lagged specification model is suitable for use in this study, because the impact of past independent variables on the current dependent variable can be studied (Stoian and Iorgulescu, 2020). With some of these advantages, this approach is very suitable for analyzing the relationship of the model and has been widely used in empirical research in recent years. because the impact of past independent variables on the current dependent variable can be studied (Stoian and Iorgulescu, 2020). With some of these advantages, this approach is very suitable for analyzing the relationship of the model and has been widely used in empirical research in recent years. because the impact of past independent variables on the current dependent variable can be studied (Stoian and Iorgulescu, 2020). With some of these advantages, this approach is very suitable for analyzing the relationship of the model and has been widely used in empirical research in recent years.

The general model on ARDL is as follows:

$$\Delta Y t = \beta_0 + \sum_{t=1}^{n} \beta_1 \Delta Y_{t-1} + \sum_{i=0}^{n} \beta_2 \Delta X_{t-1} + \varphi_1 y_{t-1} + \varphi_2 x_{t-1} + \varepsilon_t$$

Information:
 β_1, β_2 : Short run coefficient
 φ_1, φ_2 : Long-run ARDL coefficient

et : *Disturbance error* (white noise)

As already mentioned, the advantage of ARDL is its ability to detect long and short term dynamics. In the general ARDL model in the above equation which is the equation for the short-term relationship is: $n \qquad n$

As for the long-term relationship is.

$$\sum_{i=1}^{n} \beta_1 \Delta Y_{t-1} + \sum_{i=1}^{n} \beta_2 \Delta X_{t-1}$$
As for the long-term relationship indicated by. $\varphi_{\overline{1}} y_{t-1} + \varphi_2 x_{t-1}$

The model built in this study is as follows:

$$\Delta SMI = \beta_{0} + \sum_{\substack{i \neq 1 \\ + i \neq 9}}^{n} \beta_{1} \Delta SMI_{t-1} + \sum_{\substack{i = 1 \\ \beta_{3}}}^{n} \beta_{2} \Delta FDI_{t-1} + \sum_{\substack{i = 1 \\ \beta_{4}}}^{n} \beta_{2} \Delta FDI_{t-1} + \sum_{\substack{i = 1 \\ \beta_{4}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} + \sum_{\substack{i = 1 \\ \beta_{5}}}^{n} \beta_{5} \Delta IR_{t-1} +$$

Information:

SMI : <i>Return</i> Sharia Stock Market Index (Stock Market Inde	ex)
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- FDI : Foreign Direct Investment
- PE : Level Economic growth

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D. RESULT AND DISCUSSION

In general, from the results of data processing that has been done using analysis techniques with the ARDL Bounds Testing approach, it is found that the results can be briefly seen in the image below:



Source: Eviews 9

Figure 2. Summary of short and long term relationships

Figure 4.1 Summary of short and long term relationships

Information :



- : Not significant
- : Significant (1% and 5%)
- : Significant (10%)

The picture above shows that statistically only long-term relationships in Singapore can accept the alternative hypothesis, while in other countries it is rejected. The statistical economic growth variable can accept the alternative hypothesis on the short-term relationship of economic growth in Indonesia and Malaysia and the long-term relationship in Malaysia, while in other countries the alternative hypothesis is rejected. None of the alternative hypotheses put forward for inflation are accepted, so all countries accept the null hypothesis. The alternative hypothesis of the reference interest rate variable is accepted by all research object countries both in long-term and short-term relationships, except for short-term relationships with Singapore. Then, the last hypothesis proposed was found to vary,

Interpretation of Long and Short Term Relationships

In macroeconomics, the long run is the period when the general price level, the contractual wage rate, and expectations fully adjust to the state of the economy, in contrast to the short run when these variables may not fully adjust (Mohamed and Ahmed, 2018). The following is an economic interpretation of the data analysis findings. According to Mohamed and Ahmed (2018), termshort in economics expresses the concept that the economy behaves differently depending on the length of time it reacts to certain stimuli. The short term does not refer to a specific time duration but rather a thing that is unique to the firm, industry or economic variable being studied. The main principle guiding the short-run and long-run concepts is that in the short run, firms face variable costs and fixed costs, which means that output, wages and prices do not have complete freedom to strike a new equilibrium.

a) Indonesia

Based on the results in table 2, FDI has no significant effect on the return of the Islamic stock index in long-term relationships in Indonesia. The results of this study state that FDI has a negative but insignificant effect on sharia stock returns. Kapoor & Sachan (2015) in India and Khan & Zaman (2012) in Pakistan have previously found a similar finding with the return of the Islamic stock index in this country. FDI in Indonesia, Malaysia and Thailand is not directly linked to the stock market. This is because the flow of investment funds into this country compared to Singapore in this study is relatively low.

The low realization of FDI is evidence that the government of this country is still having difficulty attracting foreign investors to invest in the country, so that the amount of FDI does not have a significant impact on the Islamic stock market in Indonesia. In addition, direct foreign investment does not necessarily increase the welfare of shareholders, because FDI has proven not to have touched companies listed on the stock exchange.

In a short-term relationship, changes in FDI in the two previous quarters have a negative and significant relationship to the return of the Islamic stock index in Indonesia. A 1% increase in FDI changes in the previous two quarters caused the return of the Islamic stock index to fall by 0.032% in Indonesia. A finding which contradicts the hypothesis is shown in Indonesia where the direction of the relationship is negative. FDI flows into Indonesia are only concentrated in Java, so that the benefits of FDI are not felt by companies in other regions that have abundant natural resource potential, so that FDI fails to boost the profitability of companies outside Java, this results in share prices and stock returns will go down. This study is in line with research by Mišun and Tomšík (2002).

Based on the results in table 4.7, economic growth in Indonesia has a negative and significant effect at the 10% confidence level on long-term return on the Islamic stock market. Every 1% increase in economic growth, it will decrease the stock return by 0.22%, cateris paribus. Ritter (2005) states that high economic growth will only benefit consumers through living standards, but it does not always benefit the owners of capital (shareholders), because the cash flow that enters the company from public consumption does not always indicate an increase in investor welfare (dividends). According to Ritter, it is widely believed that economic growth is good for shareholders.

Economic growth occurs from high levels of personal saving and increased labor force participation, and from changes in technology. However, the increase in capital and labor input into new firms did not in fact increase the present value of dividends in existing firms. Changes in technological advances also do not increase profits unless the company has a long-lasting monopolistic tradition, a condition that rarely occurs. In addition, the research period in Indonesia is a period in which Islamic stock investment is getting high interest from the Indonesian people, so even though the economic growth trend is decreasing, investors are still hunting for Islamic stocks, so the price and return of Islamic stocks continues to increase. In the short term, the market has responded positively to changes in economic growth for two consecutive quarters, this is because the euphoria of the success of the Indonesian government in increasing the progress of economic growth is considered a positive sentiment in the short term, in line with the influence of other macroeconomic indicators.

In a long-term relationship, inflation has a negative but insignificant effect on the return of the Islamic stock index in Indonesia. This study is in line with the results of research from Stoian & Iorgulescu (2020), Albulescu, Aubin and Goyea (2017) and Kewal (2012). Khan & Yousuf (2013). According to Stoian & Iorgulescu (2020) states that the stock market is, in general, forward-looking, which also appears to be true in the case of the country's Islamic stock market. If investors anticipate changes in consumer prices or economic output, they will integrating these expectations into current trading decisions.

In the short-term dynamics of the relationship, inflation has a negative but insignificant effect on the return of the Islamic stock index in Indonesia in the lag of the previous quarter and two lags of the previous quarter. Albulescu et al (2017) say that macroeconomic fundamentals only guide long-term institutional investors, whereas short-term traders are guided by the current economic context and by the uncertainties that characterize it. Changes in inflation are not a factor that investors pay attention to in the observation period of this study, Islamic stock investors believe that in those years the economic conditions began to stabilize after the 1997 and 2008 economic crises, so investors invested by looking at other macroeconomic indicators.

In the Indonesian Islamic stock market in a long-term relationship, significant evidence with a negative direction between the reference interest rate and the return of the Islamic stock index is successfully expressed in this study. Every 1% increase in the benchmark interest rate, it will reduce the return of the Islamic stock index by 0.04% in Indonesia, cateris paribus. With

these results, the research hypothesis can be accepted. Research that reveals similar results is Alam & Uddin (2009) in high-income and developing countries, Ahmad. et al (2010) in Pakistan and Bissoon, et al (2016) in research objects of different continents.

This result is in accordance with the existing theory, that high interest rates will have a direct or indirect impact on stocks. The direct impact is that companies borrow money from banks at a higher cost, although in Islamic companies there are limits to the ratio of debt to total assets, but it does not rule out the possibility that the company will continue to borrow money from banks. The high bank interest will have an impact on the costs incurred by the company, so that the company's profitability will be depressed, this will affect investors in buying shares if the company's income falls. Indirectly, high interest rates will affect the interest on deposits in commercial banks.

In the short term, the benchmark interest rate has a significant impact until the lag of the previous two quarters in Indonesia. The direction of the relationship in the current and previous quarters is still consistent with the findings in the long-term relationship in Indonesia, but different direction on the effect of the lag of the previous two quarters. Results that contradict the hypothesis proposed in the short term are found in the lag of the previous two quarters in Indonesia and Thailand and the previous quarter in Singapore. This result was unexpected, because theoretically, high interest rates cause investors to invest less in riskier assets and as a result, the stock price is expected to be lower. This finding rejects the alternative hypothesis which states that the reference interest rate has a negative and significant effect on the return of the Islamic stock market index.

The results of research by Amtiran et al. (2017) also stated that interest rates have a significant positive effect on IDX Indonesia's stock returns with the APT approach. Lower interest rates are not automatically followed by adjustments in interest rates for savings, deposits or credit. With the decline in the benchmark interest rate, investors did not respond to collecting stocks, but on the other hand, investors were still struggling to invest in banking because the returns on bank deposits were still high, so that prices and stock returns also fell.

In this short-term dynamic change, the Rupiah exchange rate against the Indonesian USD has a negative but insignificant effect on the return of the Islamic stock index. This result is in line with the research conducted by Gay (2008) in BRIC Countries (Brazil, Russia, India and China).

b) Malaysia

The results found in Malaysia are the same as those found in Indonesia, namely that FDI does not have a significant effect on the return of the Islamic stock index in the long-term relationship in Malaysia. In the short term relationship, Malaysia was also found to have a negative but insignificant relationship. Malaysia, through the MIDA (Malaysian Investment Development Authority) since 2016 has been trying to carry out promotions to attract foreign investor funds to its country, MIDA offers various incentives to attract foreign investors to Malaysia, and the Malaysian government has also launched various policies such as simplifying regulations and offering affordable taxes. low in order for FDI to enter Malaysia. However, during this research period, the increasing flow of FDI has not had a significant impact.

The Islamic stock index in Malaysia gives different results from Indonesia, a significant effect with a positive direction occurs on the relationship between economic growth and the return of the Islamic stock index, this result is in line with the research of Mukherje and Naka (1995) and Wongbangpo and Sharma (2002). When economic growth increases by 1%, it will increase the return of the Islamic stock index by 0.017% in Malaysia, cateris paribus. In a long-term relationship, the phenomenon of Malaysian economic growth with a high level of Malaysian consumption is also followed, followed by an increased sales turnover from companies listed on the capital market, this is because high public purchasing power also increases the issuer's income and offers dividends.

Changes in economic growth in Malaysia have a significant effect in a positive direction on the return of the Islamic stock index in the current quarter. Every 1% increase in economic growth, will boost the return of the Islamic stock index by 0.022% in the short-term relationship in the current quarter. This phenomenon is still in line with the long-term relationship. In the short term, the Islamic stock market responds to economic growth by increasing the company's cash flow from high public consumption, which is able to make investors feel the benefits of economic growth with high returns.

Inflation was also found to have no significant effect in Malaysia in a long-term relationship. Islamic stock market investors in Malaysia also tend not to pay attention to inflation movements during the observation period, because based on statistical descriptions, the average inflation is still below 5%, inflation of that size is still considered mild inflation, this is due to the policies of each government to maintain The value of inflation and economic growth go hand in hand, therefore the increase in the inflation rate does not significantly make investors afraid to invest in Islamic stocks, especially in Islamic stocks moving in the real sector and there is a debt limit that makes Islamic stocks resistant to inflation fluctuations. This result is not in line with the research of Wongbangpo and Sharma (2002), Sohail and Hussain (2009) state that inflation has a negative and significant effect on stock returns. In the short term, inflation also has a negative but insignificant effect on the return of Islamic stock index in Malaysia in the previous quarter lag and two lags in the previous quarter.

The benchmark interest rate has a significant negative effect on stock returns in Malaysia. Every 1% increase in the benchmark interest rate, it will reduce the return on the Islamic stock index by 0.11% in Malaysia, cateris paribus. The explanation is that high interest rates will be burdensome for people who have bank financing, whereas on the one hand, their income is not increasing, so it will reduce their daily needs and investment portion. If consumer spending funds decrease, the company will experience a decreased sales turnover, then the stock price will fall, in line with this, when the public investment fund allocation is not excessive, they tend to delay the allocation of investment funds to the capital market, so that the demand for shares also down.

In Malaysia, changes in the benchmark interest rate have a significant negative direction in the previous quarter in the short-term relationship. This finding rejects the null hypothesis and accepts the alternative hypothesis. In a long-term relationship, the exchange rate does not have a significant effect on stock returns in Malaysia. In the short-term dynamics of the relationship, the Malaysian Ringgit exchange rate against the USD has a negative and significant effect on the return of the Islamic stock index in the current quarter and the lag of the previous quarter. In other words, the strengthening of each currency against the USD provides a positive sentiment and reaction to the Islamic stock market in the short term. The strengthening of the domestic currency is a sign that the domestic economy is improving. In addition, companies with a high import orientation benefit from low import costs of raw materials so as to maximize company profits which results in an increase in company stock returns. Changes in the Malaysian Ringgit exchange rate against the USD which has a negative relationship, or the appreciation of the Malaysian Ringgit boosts stock returns, this indicates that the orientation of Malaysian companies is dominated by high imports. High imports with the appreciation of the domestic currency will greatly benefit from cheap raw materials denominated in USD.

c) Thailand

FDI was found in Thailand to have a positive but insignificant effect on stock returns both in the long term. As is the case with findings in Indonesia and Malaysia. FDI in these countries, invested less than touching the level of companies listed on the Islamic stock index. Most likely, the incoming investment is not in the form of induced mergers/acquisitions of companies in the destination country, but rather the opening of branches of home country companies in the destination country, so that the direct impact is insignificant.

A negative and significant relationship was found in short-term relationships in Thailand. A 1% increase in FDI change in the previous two quarters caused the return of the Islamic stock index to fall by 0.013% in Thailand, cateris paribus. Mišun and Tomšík (2002) show the negative effects of foreign direct investment. FDI has essentially led to pressure on the appreciation of the domestic currency, an enforced increase in the money supply and inflationary pressures related to an increase in the foreign trade deficit in new technology imports and an increase in the current account deficit of payments as a consequence of profit repatriation by multinational corporations. A series of these negative effects.

Thailand shows that economic growth has no significant effect on the return of the Islamic stock index both in the long and short term. Capital market investors failed to respond to the ups and downs of Thailand's economic growth. High public consumption has failed to reach the level of investment. Increasing GDP does not necessarily increase the income per capita of each individual, so investment in the Thai capital market is not affected by an increase in economic growth (Kewal, 2012). Inflation has a significant positive effect on the return of the Islamic stock index in Thailand. Every 1% increase in inflation will be followed by an increase in the return of the Islamic stock index by 0.09%, cateris paribus. These results are supported by the results of research by Kahn et al (2017) and Maysami et al (2004). According to Maysami et al (2004), a possible explanation for the positive relationship is the active role of the government in preventing price increases in line with the post-1997 economic recovery.

Bodie (1976) argues that equity is an effective hedge against inflation because they represent ownership of real assets and therefore, real changes in equity prices are not affected by inflation. Marshall (1992) states that if inflation is caused by money shock, it will lower

interest rates and investors will transfer their cash holdings to stocks and bonds to maximize the potential for capital gains. The increase in demand will in turn raise the stock price. The expected increase in inflation can also signal a potential increase in real activity, production and hence higher stock returns (Fama and Gibbons, 1982).

Different results in short-term relationships are found in the Thai Islamic stock market. Inflation has a positive and significant effect in Thailand in the current quarter. In Thailand, every 1% increase in inflation, it will raise the return of the Islamic stock index by 0.09% in the current quarter, cateris paribus. Investors have the motivation to get a return that exceeds the existing inflation rate, this is because stock instruments can provide a higher rate of return than other financial instruments, so that during the observation period in Thailand and Singapore in the short term Islamic stocks can function as a hedge.

In a long-term relationship, the benchmark interest rate also has a negative but only significantly weak effect on the return of the Islamus stock price index in Thailand. In this connection, Thai investors also make the interest rate factor a parameter in investment, because changes in interest rates are found to have had a significant response by investors. Investors may also observe other macroeconomic factors in this long-term relationship. In a short-term relationship, Thailand shows that the effect of changes in the new benchmark interest rate has a significant negative impact in the previous quarter and a significant positive impact on the lag of the previous two quarters. Looking at the coefficient of the effect of the reference interest rate.

In Thailand, the weakening or depreciation of the Bath exchange rate against the USD has a positive and significant effect on the return of the Islamic stock index. Where if the exchange rate of the Bath currency against the USD depreciates or weakens by 1 Bath, the return of the Islamic stock index will increase by 0.04%, cateris paribus. In other words, if the Bath exchange rate against the USD appreciates, then the stock return will decline. This is not in accordance with the hypothesis proposed, there are reasons behind the findings of this study. This research is supported by research by Mukherjee and Naka (1995) in Japan. According to Mukherjee and Naka (1995), the depreciating domestic exchange rate against the USD causes the prices of domestic company products to be cheap in destination countries, such as the United States, as a result, the demand for cheap goods will increase, so that exports will also increase. This causes the profitability of these companies to increase and will increase the rate of return to investors. Quoted from tradingeconomics.com data shows that Thailand's exports to the United States have increased every year, and it was recorded that in 2010 it was only around US \$ 21 billion to US \$ 29.72 billion in 2019, according to the UN's COMTRADE database.

Changes in the Thai Bath exchange rate which have a negative relationship in the shortterm relationship, are different when tested in a long-term relationship because in contemporary changes it indicates that the Thai economy is in an improving condition which is marked by the appreciation of the Bath exchange rate against the USD, so that in the short term investors responded positively to the appreciation of the Bath exchange rate against the USD.

d) Singapore

In Singapore, FDI has a positive and significant effect on the return of the Islamic stock

index, with a regression coefficient of 0.005, it means that every 1% increase in FDI will increase stock returns by 0.005%, cateris paribus. According to an investment report from UNCTAD 2020, Singapore is the fifth largest recipient of investment in the world, after the United States, China, the Netherlands and Hong Kong.

Singapore has indeed based its economic development on a proactive strategy of attracting FDI with trade openness. The Singapore government makes it easy to invest in this country, for example attractive loan interest for investors, a simple regulatory system, tax incentives, high quality real estate industrial estates, political stability and the absence of corruption make Singapore an attractive destination for investment. This result is in line with research conducted by Adam & Tweneboah (2008), which states that there is a significant positive relationship between stock returns and FDI.

In the short term, Singapore shows the opposite direction of the long term relationship and was found to be significant in the previous two quarters. In the short term, a 1% increase in FDI change in the previous two quarters caused the return on the Islamic stock index to fall 0.4% in Singapore, cateris paribus. Seeing the phenomenon of Singapore which is the destination of so many foreign investors, this is like a double-edged knife, on the one hand it provides benefits, but on the other hand, Islamic stock investors in Singapore are also wary because Singapore, which relies on FDI, automatically the economic conditions depend on its main trading partner country. So that high FDI does not necessarily increase the return of Islamic stocks, even investors prefer to invest in other safer instruments.

The Singapore Islamic stock index is influenced negatively and significantly by its economic growth. As with the results found in Indonesia, it is supported by research by Ritter (2005) and Wiradharma & Sudjarni (2016). Every 1% increase in economic growth, will be followed by a drop in the return of the Islamic stock index by 0.009%, cateris paribus. The Islamic stock market in Singapore experienced the shock of the global economic crisis in 2008 which caused stock prices to fall, so that when economic growth immediately rose, the Islamic stock market was still struggling in the red zone. Likewise, when the recession hit, Singapore was still quite trusted by investors, this was due to solid fundamentals, stable political conditions and a simple regulatory system.

On the other hand, in a short-term relationship, economic growth in Singapore in the current quarter has a negative significant response, but the lag in the previous quarter has a positive and significant effect on the return of the Islamic stock index. The change in the direction of this relationship is because in a short-term relationship, the nature of the relationship is very dynamic and the influence of other variables also affects the direction of this relationship.

In the short-term relationship, inflation has a positive and significant effect in Singapore in the current quarter and the previous quarter. An increase of 1% in the inflation variable, it will boost the return of the Islamic stock index in the current quarter and the lag of the two previous quarters, which is 0.07% in Singapore, cateris paribus. As mentioned in the descriptive statistics, that Singapore has a fairly low inflation rate, even Singapore recorded below 0 or minus. The higher the changes in inflation, the more interested Islamic stock investors are to invest in the capital market, so that stock prices and returns are also raised.

In a long-term relationship, the benchmark interest rate has a negative and significant effect on stock returns in Singapore. Every 1% increase in the benchmark interest rate, it will reduce the return on the Islamic stock index by 0.04% in Singapore, cateris paribus. These results are in accordance with the proposed hypothesis. Investors will sell shares if the benchmark interest rate increases, because it will cause a lot of operational costs to the company which can reduce the company's revenue.

In the short-term relationship, the benchmark interest rate has a significant positive effect on the short-term relationship, the benchmark interest rate has a significant positive effect on stock returns in Singapore in the current quarter and the lag in the previous quarter. Stoian and lorgulescu (2020) argue that tight monetary policy and expectations of high interest rates encourage pressure for company management to provide higher returns. In addition, according to Majid and Yusof (2009), the tendency of Muslim investors to buy more Islamic stocks is to save their money in banks or other interest-based instruments. Mukherjee and Naka (1995) also explain this result that long-term interest rates can serve as a better proxy for the risk-free nominal component of the discount rate in the stock valuation model.

In a long-term relationship, the Singapore exchange rate against the USD does not have a significant effect on the return of the Islamic stock index. A possible explanation is that the product exports of these two countries are dominated by countries other than the United States that do not use the US dollar as the currency being transacted. Thus the fluctuation of the currency against the USD does not affect investors' decisions in investing in Islamic stocks. These results are in line with research by Khan et al (2017) in China.

In contrast to the case during a short-term relationship, Maysami and Koh (2000) reveal that the Singapore economy has high imports and exports, and intermediate products are high in total expenditure. The Monetary Authority of Singapore (MAS) is tasked with preventing imported inflation by keeping the Singapore dollar at a strong level, and a stronger currency is usually accompanied by increases in reserves and the money supply and decreases in interest rates (Pebbles & Wilson, 1996). For this reason, the possible appreciation of the Singapore dollar is received as good news by the Singapore stock market and therefore yields positive returns.

E. CONCLUSION

Here are some conclusions from the research results below:

1. Indonesia

The variables of FDI and inflation do not have a significant effect in the long run, while the variables of economic growth, interest rates and exchange rates have a significant effect in a negative direction on long-term relationships. In the short-term relationship, the FDI and interest rate variables have a negative and significant effect on the return of the Islamic stock market index. Economic growth has a positive and significant effect on the return of the Islamic stock market index, while inflation and exchange rates have no relationship with the return of the Islamic stock market index.

2. Malaysia

FDI, inflation and exchange rate variables have no effect on long-term return on the Islamic stock index in Malaysia. The economic growth variable has a positive and significant effect, while the reference interest rate variable has a negative and significant effect on the long-term return of the Islamic stock index in Malaysia. In the short-term relationship, FDI and inflation have no effect on the return of the Islamic stock index in Malaysia. Meanwhile, economic growth in the current quarter has a significant positive effect, the interest rate variable has a significant negative effect on the lag of the previous quarter. The exchange rate variable has a significant negative effect in the current quarter on the return of the Islamic stock index. 3. Thailand

FDI flows and economic growth have no effect in the long run on the return of the Islamic stock index in Thailand. On the other hand, the inflation variable and the exchange rate have a significant positive effect on the return of the Islamic stock index. The interest rate variable shows a different direction, which is negative and significant towards long-term return on the Islamic stock index. In a short-term relationship, FDI has a significant negative effect in the second quarter lag, the economic growth variable has no effect, the inflation variable has a significant positive effect in the current quarter and the exchange rate has a significant negative effect in the return of the Islamic stock index in Thailand.

4. Singapore

The FDI variable has a significant effect on the return of the Islamic stock index in Singapore, which is a long-term relationship. On the other hand, economic growth and interest rates have a significant negative effect, but inflation does not have a significant effect on the return of the Islamic stock index in the long term. In the short-term relationship, FDI, inflation and economic growth show results that have a significant negative effect on different lags on the return of the Islamic stock index in Singapore. Meanwhile, the inflation variable and compact interest rates have a positive and significant effect on the return of the Islamic stock index in Singapore.

In general, it can be concluded that financial variables and macroeconomic variables can be used to predict Islamic stock returns, in other words, Islamic stock investors need to pay attention to factors outside the company, especially macroeconomic factors so that the rate of return on returns can be maximized. From the regression results, the reference interest rate is an important variable to be considered by sharia stock investors because all the research object countries note that the interest rate is an important variable. On the other hand, inflation is a variable that is only considered in Thailand and Singapore, while Indonesia and Malaysia do not find any significant inflation either in the long or short term.

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