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INDONESIAN CAPITAL MARKET REVIEW

Inter-relation between Indonesian Islamic Capital Market Index and the World Market Indices: Period of January 2009 – December 2017

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The purpose of this study is to investigate the relationship between the Jakarta Islamic Index and the Shariah World Indices within period of January 2009 to December 2017. This study is conducted using vector autoregressive (VAR) method and tawhidi string relationship (TSR) method. The key finding is the conventional Sharia Migration to Sharia in Indonesia through several channel and must be followed by developing the stock market platform as well as Screening on stock shares that follow the principles of sharia. This study found that Middle East investors reflected in the active GCC index in investing in the Indonesian capital market. Under such a phenomenon, the Capital Market Regulators in Indonesia, in this case OJK, must be active in enhancing the Indonesian market among the Gulf countries as well as the OIC (Organizing Islamic Countries). The managerial implications of this study encourage issuers belonging to the Islamic index to continue to improve healthier financial performance while making a breakthrough with the Islamic index in the world, especially the GCC countries.

Keywords: World Capital Market Indices; Islamic Capital Market Index; Inter Relationships, Stock Migration; Conventional Shares to Sharia; VAR (Vector Auto Regressive); TSR (Tawhidi String Relationship)

JEL Classification: G32, C22

Introduction

Hitherto, Sharia capital market index has become a reference for decision makers and is an indicator of financial investment in various Islamic countries and even in other non-Islamic countries. Since Dow Jones introduced the sharia index in 1997 as a benchmark in investor decisions in the stock market, it has prompted investors to luck in various markets affiliated with Middle East countries for a long time. The long wait to launch the global sharia index has

encouraged Middle Eastern investors to capitalize in both Islamic countries and developed countries such as America, Europe and some emerging market countries including Indonesia. The main reason for the use of the global sharia index is a breakthrough that reflects Islam as a religion that regulates all worldly things and ukhrawi (the day after). Implementation of the global sharia index is a milestone in modern business that carries the capital market as a pillar of the development of a nation. In practice the launch of several sharia indexes by Dow

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Jones and several countries in the Middle East and Asia has not resulted in significant growth from new investor evolution.

The development of sharia capital market in Indonesia is inseparable from the role of DSN-MUI through DPS (Sharia Supervisory Board) which has been actively guiding and supervising the capital market runs based on Sharia principles of Islamic teachings. Figure 1 shows the development of the Indonesian capital market prior to 2000 or the end of the 20th and after millennium. The interesting thing that can be seen from the picture is the phenomenon that occurred after the year 2000 or exactly 2004, where the curve depicting Indonesia capital market index exceeds 3 world capital market indexes: in this case Dow Jones, Moody's and S & P. The main reason for changing the pattern of world stock indices compared to Indonesia is the increasingly attractive portfolio investment returns on companies in Indonesia that provide better returns.

Figure 1 shows that the Stock Index of Trading on the Indonesia Stock Exchange (JKSE) has an attractive that surpasses several international stock indices such as Dow-Jones, Moody's and S & P significantly based on the consideration of the yield and other criteria for remuneration since 2004. This condition that causes global investors to rethink and think ahead of Indonesia as a country that has an investment magnet in the new world investment radar. The picture above also explicitly explains that global investors are beginning to shift their investment portfolio in Indonesia over the next few years. The image also implies that the Indonesian capital market is not a new toy that suddenly emerges, but through the processes and dynamics of economic and political changes that are long over the past 15 years. Prior to 2004 world investment was only served with the performance of three major world indices: Dow Jones, Moody and S & P which three of them are tempted by the lure of fixed investment. But the situation has changed since 2004, where the tools and investment prerequisites are easy in almost all emerging market countries, including Indonesia which provides good returns on the capital market investment sector. (Daewoo Securities

Seminar, 2014)

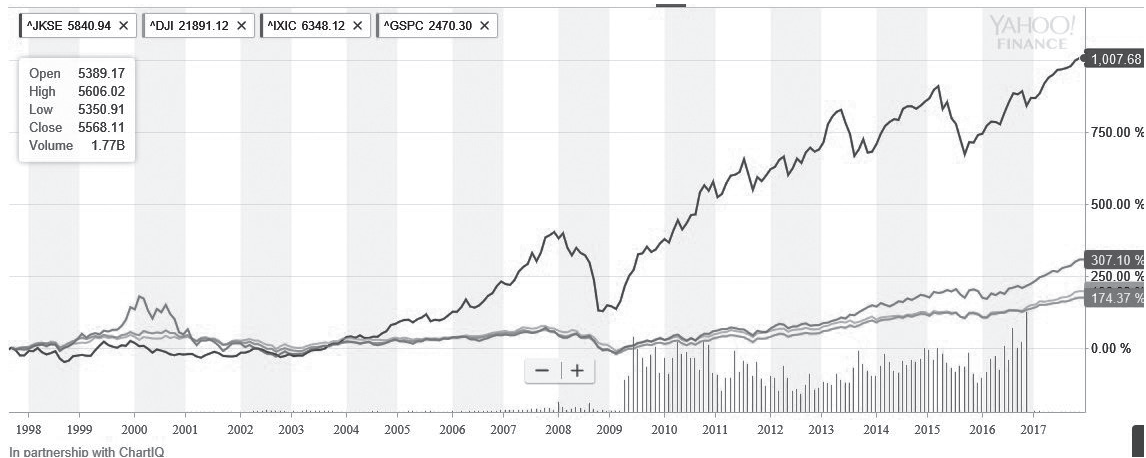
Referring to ASEAN, Indonesia is the main axis in the regional Asia which offers large and bulky market capitalization. It can be concluded that Indonesia is much more attractive than Malaysia, Thailand, Singapore and even Taiwan market, given the Indonesian market is more populated by productive age population. (Figure 2)

It is not surprising that today the sharia trading pattern is followed by many brokers and investors around the globe including Indonesia. Hitherto, DSN-MUI has implemented trade regulations that apply sharia compliance such as prohibition of margin trading and short sale, which have been followed by almost all brokers and investors in order to avoid uncalculated losses. This is the reason why many conventional investors switch to trading Sharia stocks, because many undesirable things in trading can be circumvented.

Currently, stock trading between countries is almost borderless, where the outflow of capital in a country's stock exchange occurs very quickly and massively. this occurs for all transactions, including those carried out in sharia using the global and regional sharia index reference. (Alam, 2017) This has further triggered capital market implementers and capital market supervisors to make breakthroughs to ensure transactions take place safely and conducive to investors. This of course excludes transactions carried out with moral hazard, such as money laundering and other negative things.

Nevertheless, the development of capital markets in Indonesia is still considered *sluggish* compared to other countries, both within the ASEAN region and the world. The low literary capital market in Indonesia can be caused by several factors. First, the level of confidence of the Indonesian people towards the institution or the official financial institutions both private and government is not optimal. Second, related to the mentality of most Indonesians who want quick repayments without heeding the corridors of investing properly. Several cases of fraudulent investment that have occurred recently as a result of low public financial literacy.

Figure 1. Comparison of Indonesian and World Capital Market



Sources: Yahoo Finance (2017)

Figure 2. Comparison of Indonesia Capital Market and ASIA



Sources: Yahoo Finance (2015)

The objectives of this study are stated as follows:

1. The study aims to investigate whether there are significant differences between conventional and sharia capital market indices based on investment criteria and investment decisions. Criteria refers to the correct investment and financial decision.
2. The study purposes to explore inter-relation between Sharia stock index incorporated in the World Index with stock indices incorporated in various regional indexes. Regional Indexes referred to here are the Asia Pacific region, Middle East and Latin America.
3. This study is intended to investigate whether there is a significant relationship between regional and Indonesian sharia indices

4. This study investigates how the regional interaction of sharia index affects conventional migration to sharia in Indonesia

Literature Review

Buchdadi, Arafat, and Uminingtyas (2009) have examined the difference between investments in sharia and non-sharia shares based on increased Maximum Loss due to differences in characteristics across all shares. As a result of the emergence of the Phenomenon Conditional Variance, they used the EWMA model and the GARCH model. In his research, the EWMA model provides better performance, and a conservative VAR value than the GARCH model. In detail, Sharia stock investments carry more

risk during the February and March and May-July 2007-2008 periods.

Research on the same topic was also carried out by Herwan and Febrian (2013), which focused more on measuring risk between sharia and non-sharia stocks based on return on investment services. Their research uses Value at Risk to measure both conventional and sharia shares. The study was conducted to assess the behavior of reciprocity in sharia stock using cross section data from beta rank portfolios and market capitalization. Their results showed that the world financial crisis in 2008-2009 greatly affected the Indonesian capital market. This study uses 3 observation periods namely, before, during and after the crisis. This study is to assess the risk and return (return) that uses a multi-index model. So called, is because it is the most important and fundamental variable.

Capital markets can be considered as one of the most important aspects in describing the financial health of a country as well as the world economy. This is indicated by the desire of investors to play a big role both in the accumulation of domestic savings and foreign capital for investment which in turn can sustain economic growth. It also justifies that the capital market can be regarded as an herb of economic growth as well as growth that generates liquidity for investors and serves as a way for risk diversification. (Aboudou, 2010). The capital market is also considered a center or magnet that attracts public participation in order to accelerate financial deepening which will further maintain long-term economic growth (Caporale, 2004). According to Demirguc-Kunt (2006), "The Capital Market assists in the mobilization of domestic savings, providing payment services that facilitate the exchange of goods and services as the allocation of capital efficiency with other factors of production in promoting long-term economic growth.

Malliaris and Urrutia (1992) examined Granger's causality test in six developed country capital markets before, during and after Stock Crash in October 1987 to see the cause of the onset of the crisis. The results of their study indicate that there is no significant relationship either in lag or lack-lag lengths either

before or after the crisis. A study somewhat similar to Malliaris and Urrutia is Kwan et al (1995) using the same method to see Efficient Market Hypothesis on capital markets in developed countries. Their results show that there is no strong market dominance, so they reject the Hypothesis.

Arshanapalli, Doukas and Lang (1995) have studied the occurrence of Co-Integration among US, Japanese and 5 other Asian countries and their change in the time period under study. They also examined the effect of US and Japanese Capital Market on 5 Capital Markets in Asia before and after 1987 or coincided with the Black Tuesday or Stock Crash tragedy. Their research concludes that the expansion of Co-Integration among all capital markets has increased since Black Tuesday's 1987 tragedy that led to the opening of arbitration between US and Asian markets. Subsequent research by Janakiramanan and Lamba (1998) also increasingly affirms the incremental integration between the US and Asian Capital Markets. In their research they found a long-term relationship between the US and 9 countries in Asia Pacific. They used daily data from 9 countries, in this case the US, Australia, Hong Kong, Japan, New Zealand, Singapore, Malaysia, Thailand and Indonesia during the period 1988 to 1996. The study concluded that there is a positive correlation between the US and the nine countries in the perusal, unless Indonesia still has a low degree is not statistically significant almost with all countries. US capital markets indirectly affect all markets, especially Australian and New Zealand.

The awareness of Muslims about the importance of doing business in accordance with religious demands, has given birth to many ideas and ideas the need to give birth to Sharia stock indexes based on accounting based and sector based in accordance with Islamic principles. 1997 was a historical moment, when Dow Jones launched the Global Sharia Index for the first time. Based on the above phenomenon, the hypothesis made is as follows:

Hypothesis 1

It is estimated that the launch of the Global Sharia Index such as the Dow Jones Sharia In-

dex affects various regional indices around the world.

The launch of the Dow Jones global sharia stock index has prompted many countries to do the same. Some regions or regions also made a breakthrough in their capital markets in order to provide a pooling index to the sharia category. Through their stock exchange cooperation, they collaborate with the international rating agency Dow Jones, which has become a pioneer in the global sharia index. Gulf Cooperation Countries, in this case, Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE), index their capital market indexes to be tickers or DJIM-GCC codes. Since the launch of the GCC index it has indeed triggered the volume of capital market trading in the region, as well as affecting global capital market trade.

The Dow Jones rating agency also conducted a pooling index as well as a screening of companies in countries in the Asia Pacific region in addition to Japan in accordance with Shariah Compliance. This results in an ASPACex_Jp index that contains all Shariah-categorized shares in the region or region. The launch of this index has also triggered growth and trade volume in the region and other regions. Based on the above phenomenon, the hypothesis that can be made is as follows:

Hypothesis 2

The Emerging Market Sharia Index can affect capital market indices in all regions including Turkey, Indonesia and Malaysia.

Emerging market indexes consisting of several indexes by region or region have influenced trading patterns and trading volume of shares in all countries including Indonesia. Some investors in the Indonesian Capital Market have made several regional sharia indexes as a reference for their investment. Some corporate actions undertaken by several issuers on the Indonesia Stock Exchange are the impact of the incessant information on regional indexes representing sharia shares in all regional regions. Given the changes in trade patterns and trade volume in Indonesia related to the launch of several regional sharia indices, the hypotheses that can be captured are as follows:

Hypothesis 3

Regional stock indexes affect conventional and sharia shares on the Indonesia Stock Exchange

The launch of the Indonesian Islamic stock index or JII (Jakarta Islamic Index) has influenced the volume and pattern of stock trading in the Indonesian capital market. This effect is not only on shares categorized as sharia but also on shares which are categorized as conventional based on sharia compliance. Some investors who have studied Shariah literacy and followed by the principle of Religion, will remain consistent in investing in shares categorized as sharia.

The efforts made by the Financial Services Authority (OJK) in developing financial literacy to the public have implications with the expansion of stock trading outlets in almost all major cities throughout Indonesia. If at the beginning of the beginning of stock trading in the late 1990s, it was still concentrated only in the JSX Building, and the Big Cities of Jakarta and Surabaya, now the capital market outlets with the support of a digital and fully automated trading system have been able to lift the number of capital market investors throughout Indonesia .

OJK's subsequent efforts in literacy on the Islamic capital market appear to be quite strong, as evidenced by the periodic reports conducted by the OJK on the list of sharia securities, as well as more stringent screening of the effects of sharia securities on the Indonesia Stock Exchange. Thus, based on these phenomena the following hypotheses can be made:

Hypothesis 4

The pattern of migration of non-sharia shares towards Sharia differs between sectors and industries in the Indonesian capital market

Data and Methodology

All data in the 2 categories are taken from various sources such as Yahoo Finance, Bloomberg, Bank Indonesia Statistics and OJK Publications using monthly data from the period January 2009 to December 2017. Based on the monthly data, 72 observations are obtained for each variable over a span of time (time series) same. The number of observations is consid-

ered to meet the statistical rules for this type of time span. Most of the data taken in this study are Dow Jones index and Sharia index on Dow Jones itself and several other regional indexes. Best examples are the Asia Pacific index, the GCC index and the Malaysia and Turkey index.

The table which shows the variables related to the operational definitions of each capital market in several countries, particularly emerging market countries (see on Appendix 1). This research will add several countries in the ASEAN region, such as Singapore, Malaysia and Thailand, and several Muslim countries that have Islamic capital markets. The table above shows several emerging market countries with an index code and an initial trade index year. Based on these data Brazil is the oldest emerging country that has a composite stock index since 1968, followed by Indonesia, China, India and South Africa.

The study of time series data using the VAR (Vector Auto Regressive) method is not new. Some of the leading economists who have used this VAR method are Christopher Sims and Granger who have been consistently and consistently using this method over a long and relatively long research period. Both are two economists well known for their consistency using econometric models since the early 1970s. Their great work for nearly 4 decades, resulted in the recognition of the world's most prestigious institution, the Nobel Royal Academy Sweden, with the Nobel Prize in economics for both. Sir Clive Granger, received the 2003 Nobel Prize for his thoughts and contributions to the "Co-integration, Granger Causality and Fractional Integration" methods. Meanwhile, Christopher Sims has been awarded the Nobel Prize in 2011 for his contribution to econometrics for 4 decades.

The main reason why using the VAR method to investigate the migration of non-sharia stock portfolio into sharia shares in Indonesian capital market and channel transmission from global sharia law index to Indonesia capital market is diverse. Firstly, it attracted stock performance in the Indonesian capital market since 2004, as seen at the beginning of this section (see figure1). The second is the relationship

between capital markets in the Asian region and the increasingly tight integration between global capital markets and emerging market countries, including Indonesia. Fundamentally, the use of TSR (Tawhidi String Relation) and VAR methods has many similarities, including justification for all variables that can be categorized as endogenous or explanatory variables. Specifically, TSR, assuming all variables are endogenous, except omega variables depicting *God's Self-Esteem*.

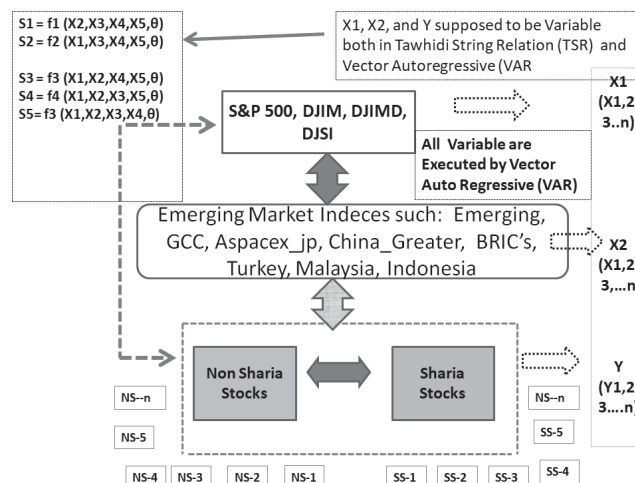
This index includes a comprehensive set of global sector indices, as well as sector indices for each country and region. These sectors are defined under the proprietary classification system. The GCC Dow Jones Islamic Market Index is designed to measure the performance of company shares in the GCC region that passes the regulatory screen for compliance with Sharia investment guidelines. The index covers Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. The index aims to measure stocks that can be accessed by local investors

The Dow Jones Islamic Market, MENA Index or DJIM MENA is designed to measure the share price of a company's performance that operates in the Middle East and Northern Africa regions. This index still follows the Sharia compliance rules of the Sharia Supervisory Board. The index covers the countries of Bahrain, Egypt, Jordan, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, and the United Arab Emirates. The Dow Jones index, which covers the MENA and GCC countries, is relatively similar. and both of these indices are used in this study. (Dow Jones Indexes, 2009)

The theoretical framework of this study can be described as follows. The research stems from observing the migration of non-sharia stock investments to sharia shares in world sharia indices such as the Dow-Jones Islamic Index, S&P Sharia Index and Moody's Sharia. Although research on stock migration is rarely found, the interrelationships between shares categorized as sharia, such as those traded by S&P, Dow Jones and Nasdaq are very strong. (Azhar, 2010)

Departing from the above, the effect of mi-

Figure 3. Research Design treated by VAR and TSR



Sources: Author's estimate (2020)

Table 1. Statistic Descriptive of Data

	DJIM	DJIM_MD	DJSI	SP500	EMERGING	GCC
Mean	2484.083	1455.280	1117.081	1653.457	2040.772	1717.083
Median	2445.950	1439.490	1122.360	1630.740	2066.950	1651.230
Maximum	3595.790	2135.160	1502.800	2647.580	2598.690	2635.780
Minimum	1271.020	742.5000	618.8000	735.0900	1054.570	999.6700
Std. Dev.	505.7130	319.3840	175.5431	483.6793	260.7090	310.1184
Skewness	-0.158195	-0.109386	-0.291582	0.074880	-1.073872	0.861516
Kurtosis	2.440199	2.178264	3.012493	1.855447	6.060031	3.796782
Jarque-Bera	1.843433	3.223872	1.516882	5.940419	62.31234	16.06648
Probability	0.397836	0.199501	0.468396	0.051293	0.000000	0.000324
Sum	265796.8	155714.9	119527.6	176919.9	218362.6	183727.8
Sum Sq. Dev.	27109034	10812651	3266431.	24798237	7204732.	10194385
Observations	107	107	107	107	107	107

Source: Author's estimate (2020)

gration from non-sharia to sharia has implications for several capital markets in emerging forces countries such as almost all countries in the Gulf region, South Asia, including Turkey, Malaysia and Indonesia. The same thing also happened in more developed countries such as Singapore, Hong Kong, South Korea and China.

Finally, the phenomenon of all external factors added with internal factors such as the decision of the Indonesian ulema council through the DSN will further influence the configuration and behavior of investor portfolios in Indonesia. The influence of religiosity on portfolios in Indonesia is very strong because there is a DSN-MUI fatwa and Muslim majority population in Indonesia (Azis, 2018).

Results and Analysis

Based on the theoretical basis and methodology described in the previous section we have produced several hypotheses underlying this research. First, try to see the effect of Sharia World Shares Index movement in this case represented by Dow-Jones Islamic Market Developed Index (DJIM-Md). To see the effect of DJIM-Md, this study placed the DJIM in the VAR system with other world index variables such as DJIM, S & P 500 and DJSI (Dow Jones Sustainability Index) (see figure 3). Furthermore, these four world indexes are tested against global world index such as Emerging Index, GCC and China_Greater. To see further influence one by one whether the effect of the World Index is uni-

Figure 4. Data Matrix in VAR System

$$\begin{bmatrix} DJIM_{MD} \\ GCC_{Me} \\ Emerging \\ ASPAC_{exjp} \\ China_{Gr} \\ Msia \\ Turkey \\ BRICs \\ JKII \end{bmatrix} = \begin{bmatrix} a11 & a12 & a13 & a14 & a15 & a16 & a17 & a18 & a19 \\ a21 & a22 & a23 & a24 & a25 & a26 & a27 & a28 & a29 \\ a31 & a32 & a33 & a34 & a35 & a35 & a37 & a38 & a39 \\ a41 & a42 & a43 & a44 & a45 & a46 & a47 & a48 & a49 \\ a51 & a52 & a53 & a54 & a55 & a56 & a57 & a58 & a59 \\ a61 & a62 & a63 & a64 & a65 & a66 & a67 & a68 & a69 \\ a71 & a72 & a73 & a74 & a75 & a76 & a77 & a78 & a79 \\ a81 & a82 & a83 & a84 & a85 & a86 & a87 & a88 & a89 \\ a91 & a92 & a93 & a94 & a95 & a96 & a97 & a98 & a99 \end{bmatrix} \times \begin{bmatrix} DJIM_{MD} \\ GCC_{Me} \\ Emerging \\ ASPAC_{Exjp} \\ China_{Gr} \\ Msis \\ Turkey \\ BRICs \\ JKII \end{bmatrix} + \begin{bmatrix} e1 \\ e2 \\ e3 \\ e4 \\ e5 \\ e6 \\ e7 \\ e8 \\ e9 \end{bmatrix}$$

Sources: Author’s estimate (2020)

Table 1B. Statistic Descriptive of Data

	ASPACEX_JAPAN	CHINA_GREATER	JKII	BRIC	MSIA25	TURKEY
Mean	1396.688	1678.879	580.8654	1296.756	915.5367	3970.496
Median	1417.840	1688.110	598.1600	1287.540	958.7500	4157.440
Maximum	1871.630	2546.410	756.3900	1824.510	1064.820	6426.800
Minimum	677.5100	820.2500	212.7200	616.0800	545.2500	1803.730
Std. Dev.	193.7133	305.9503	125.3703	214.1035	124.1545	926.8517
Skewness	-1.078531	0.158607	-0.928720	-0.452212	-1.160466	-0.050642
Kurtosis	6.236275	4.458606	3.585188	4.490099	3.694563	3.318139
Jarque-Bera Probability	67.43850 0.000000	9.933859 0.006965	16.90834 0.000213	13.54610 0.001144	26.16658 0.000002	0.496973 0.779980
Sum	149445.6	179640.1	62152.60	138752.9	97962.43	424843.1
Sum Sq. Dev.	3977632.	9922193.	1666076.	4859071.	1633919.	91059732
Observations	107	107	107	107	107	107

Source: Author’s estimate (2020)

directional, two-way or indirect to Emerging, GCC and China-Greater, the Granger Causality Test will be performed at this stage.

As a variable covering the largest capitalization of major US corporations, DJIM_md (Dow Jones Islamic Market_market developed) is the world’s index that most influences the performance of almost all world indices. Regional Indexes that are affected by the DJIM -market developed index are GCC, emerging index, which is a good example of emerging market countries in South America and Asia and parts of Africa, ASPAC_Jp Index covering countries in the Asia Pacific region other than Japan and China_greater Index, which covers China, Hongkong and Taiwan (see figure 4). Further BRICS Index, which refers to the abbreviation of the four major emerging countries, in this case Brazil, Russia, India, China, including Turkey, Malaysia and Indonesia. (see figure 3)

The last three variables refer to the three countries that are considered to represent 3 countries with the majority Muslim population who have legacy as the largest Islamic state in

the past. The Islamic Renaissance review in the preliminary chapter asserts that three countries are considered to represent representatives of Islamic State in the world, in this case Turkey, Indonesia and Malaysia. These three countries are considered to represent the Islamic state as well as a prominent representative of the OIC member countries. And these three countries are also actively campaigning the country as an International Hub for the Islamic world trade and finance.

This study stems from the selection of the World Capital Market Index which is considered to represent the performance of corporate companies in the US, Europe, Japan and countries that are classified in emerging forces. The Dow Jones Islamic Index (DJIM) is an index that encompasses almost all companies in advanced countries such as the US, Europe and Japan and emerging market countries represented by Brazil, Russia, India, China, South Africa, Malaysia, Turkey, Singapore, Hongkong (Greater China), Indonesia and various companies in Latin America and MENA (Mid-

Table 2. Comparison of Yield among World Indices

	Mean SP	Mean DJM	Mean DJD	Mean DJS	Mean Emerging	Mean GCC
Weekly	0.28%	0.23%	0.23%	0.19%	0.22%	0.10%
Monthly	1.11%	0.91%	0.93%	0.74%	0.88%	0.41%
Yearly	13.38%	10.98%	11.13%	8.88%	10.52%	4.96%

	Mean Aspacex _jp	Mean China_Greater	Mean BRICs	Mean Turkey	Mean Msia	Mean JKII
Weekly	0.03%	0.28%	0.29%	0.33%	0.12%	0.33%
Monthly	0.12%	1.10%	1.14%	1.30%	0.49%	1.33%
Yearly	1.43%	13.24%	13.70%	15.63%	5.93%	15.98%

Source: Author's estimate (2020)

Table 3. Regression Result with regard to Emerging Countries

Dependent Variable: EMERGING Method: Least Squares
Sample: 1/07/2009 12/29/2017
Included observations: 432

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.896420	0.068956	-12.99987	0.0000
DJIMD	-0.064583	0.220222	-0.293263	0.7695
DJIM	2.527633	0.141129	17.91004	0.0000
SP500	-1.642183	0.087820	-18.69937	0.0000
DJSI	0.361846	0.063379	5.709210	0.0000
R-squared	0.904438	Mean dependent var		3.305384
Adjusted R-squared	0.903543	S.D. dependent var		0.063645
S.E. of regression	0.019767	Akaike info criterion		-4.998133
F-statistic	1010.328	Durbin-Watson stat		0.415151
Prob(F-statistic)	0.000000			

Source: Author's estimate (2020)

Table 4 VAR of DJIM to Emerging Market Indices

Vector Autoregression Estimates Sample (adjusted): 2/14/2009 12/29/2017
Included observations: 427 after adjustments
Standard errors in () & t-statistics in []

	DJIM	EMERGING	GCC	CHINA_GREATER
DJIM(-1)	1.021935 (0.100260) [10.192900]	0.227512 (0.118840) [1.914360]	0.106759 (0.105990) [1.007260]	0.159690 (0.107730) [1.482250]
DJIM(-2)	-0.322725 (0.130370) [-2.475500]	-0.446710 (0.154530) [-2.890680]	-0.266493 (0.137820) [-1.933650]	-0.178026 (0.140090) [-1.270810]
DJIM(-3)	0.288662 (0.130440) [2.213060]	0.265698 (0.154620) [1.718450]	0.130315 (0.137890) [0.945070]	0.107390 (0.140160) [0.766190]
R-squared	0.989888	0.964127	0.982563	0.984543
Adj. R-squared	0.989390	0.962359	0.981704	0.983782
S.E. equation	0.009448	0.011200	0.009988	0.010153
F-statistic	1987.156	545.5795	1143.876	1293.042
Akaike information criterion				-27.46457
Schwarz criterion				-26.66652

Source: Author's estimate (2020)

dle East and Northern Africa). The result of the OLS (Ordinary Least Square) regression, by placing the Emerging Index as the Dependent and DJIM, DJIM -D, S & P 500 and DJIS vari-

ables as Explanatory Variables / Independent Variable (see Table 3 and 4 respectively). To see further the migration from non-sharia portfolios to sharia in stock shares on the IDX can be seen

from the results of the Granger method in VAR which can be seen in *Appendix 2*. For equality of data the authors take companies that exist into the blue-chip category, as seen in *Appendix 3*. This can be seen from the market capitalization criteria, D / E ratio, Profit margin and the Beta value of the company

Conclusion

It is not surprising that today the sharia trading pattern is followed by many brokers and investors around the globe including Indonesia. *Hitherto*, DSN-MUI has implemented trade regulations that apply sharia compliance such as prohibition of margin trading and short sale, which have been followed by almost all brokers and investors in order to avoid uncalculated losses. This is the reason why many conventional investors switch to trading Sharia stocks, because many adverse things in trading can be evaded.

Based on the analysis of the results in the previous section, the pattern of relationships between domestic, regional and world indices, it can be concluded that the domestic index is not independent, but correlates and synergizes with several countries in the regional region, both incorporated in the gulf states (GCC), countries in the Asia Pacific region, China and Taiwan. The existence of a good relationship or correlation between Indonesia and Turkey, increasingly opening the discourse of the Renaissance West and East, which in this case is represented between Turkey (West) and Indonesia (East). Thus, the mutually beneficial efforts between the two countries (Indonesia and Turkey) must be increased. The latest event, the Conference of OIC members in Istanbul on 12-14 Decem-

ber 2017, clearly shows the commitment of the two countries and with several other OIC countries to mutually benefit each other.

It can be concluded that companies that apply the principles of sharia or based on Sharia Compliance, have also directly applied the principles of Good Corporate Governance (GCG). The Sharia Supervisory Board, both at Dow Jones and other regions, conduct screening tests on companies that apply the prudent principle to managing their financial management. This study found that Middle East investors reflected in the active GCC index in investing in the Indonesian capital market. Under such a phenomenon, the Capital Market Regulators in Indonesia, in this case OJK, must be active in enhancing the Indonesian market among the Gulf countries as well as the OIC (Organizing Islamic Countries).

This study has a utopia or hopes for a Sharia Capital Market Single Index for countries that are members of a large OIC Organization. Even though it is still a discourse, efforts in this direction and the conditions of trade that drive this direction are getting stronger. For this, a blueprint that can be uniformed needs to be made for members of the OIC countries who have advanced their Capital Market Trading to be able to realize the Data Center, Cross Listing and Single Index.

Finally, the impetus to maintain the growth of the sharia capital market is a necessity. Indonesia as one of the leading emerging market countries must maintain this momentum. For this, the government must involve all stakeholders in finance and the capital market to see this valuable energy in order to achieve a better Indonesia.

References

- Alam, M.M., Akbar, C.S., Shahriar, S.M., and Elahi, M.M. (2017). The Islamic Shariah Principles for Investment in Stock Market, *Qualitative Research in Financial Markets*, 9(2): 132-146. <http://www.emeraldinsight.com/doi/full/10.1108/QRFM-09-2016-0029>
- Arshanapalli, B., Doukas, J., & Lang, L. H. P. (1995). Pre- and Post-October 1987 Stock Market Linkages between U.S. and Asian Markets. *Pacific-Basin Finance*
- Azhar Abdul Rahman & Mohd Azlan Yahya & Mohd Herry Mohd Nasir. (2010). Islamic

- norms for stock screening: A comparison between the Kuala Lumpur Stock Exchange Islamic Index and the Dow Jones Islamic Market Index. *International Journal of Islamic and Middle Eastern Finance and Management*, Emerald Group Publishing, vol. 3(3), pages 228-240, August. 2010
- Aziz, Roikhan Muhammad. (2018). Masa Depan Sukuk sebagai Fondasi Keuangan Negara Syariah. *Gonternaus*, Jakarta
- Bhakti, Dwi P. (1991). Analysis of Import Inflation in Indonesian, Period of 1982-1989, Application of Vector Autoregressive Method, *Thesis at the Faculty of Economics, University of Indonesia*,
- Bhakti, Dwi P. (2013). Analysis of Migration on Indonesian Stock Market, Period January 2009 – December 2012. *Majalah Ekonomika*: Agustus 2013.
- Caporale, G. M., Howells, P. G. and Soliman, A. M. (2004). Stock market Development and Economic Growth: The Causal Linkage. *Journal of Economic Development*, 29: 33-50.
- Choudury, Masudul Alam (2007), *The Universal Paradigm and Islamic World System, Economy, Society, Ethics and Sciencies*, Singapore, *World Scientific Publishing Co. Pte Ltd*.
- Choudhury, Masudul Alam, “The Unicity Precept and The Socio-Scientific Order”, *University Press of America* (1998a)
- Demirguc-Kunt, Asli & Levine, Ross, 2006. Bank supervision and corruption in lending. *Journal of Monetary Economics*, Elsevier, vol. 53(8), pages 2131-2163.
- Dow Jones Indexes (2009), “Dow Jones Indexes Expands Index Series for GCC and MENA Regions” First International Index Provider With Indexes Including Real-Time Tadawul Data
- Granger, Cliff (1980) Testing for causality: A personal viewpoint. *Journal of Economic Dynamics and Control* : 329–352.
- Huffpost (2017). Why Are China and India Growing So Fast? State Investment. Huffpost. Accessed from: https://www.huffingtonpost.com/john_ross-/china-india-growth_b_11655472.html
- Janakiraman, S. and Lamba, A.S. (1998). An empirical examination of linkages between Pacific-Basin Stock Markets, *Journal of International Financial Markets, Institutions and Money*, Vol. 8, pp. 155-173.
- Khandalawi, M. Y. (1997). *Al Hayatus Shahaabah*: “A Living of Shahabah Rasulullah. India: Sharanpur
- Kwan, A.C.C., A.B. Sim and J.A. Cotsomitis (1995). The casual relationship between equity indices on world exchanges, *Journal of Applied Economics*, 27, 33-37
- Malliaris and Urrutia, (1992). A.G. Malliaris, J.H. Urrutia The international crash of October 1987: Causality tests. *Journal of Financial and Quantitative Analysis*
- Pamuk, Sevket. (2004). Prices in the Ottoman Empire, 1469-1914. *International Journal of Middle East Studies*. Cambridge Vol. 36, Iss. 3, (Aug 2004): 451- 468.
- Sims, C.A (1982). Policy Analysis with Econometric Models. *Brooking Papers on Economic Activity*, 107-64.
- Tachiwou, Aboudou M. (2010). Stock Market Development and Economic Growth: The Case of West African Monetary Union. *Shanghai University of Finance and Economics*

Appendix

Appendix 1. Variables in Operational Definitions

Country	Name Stock Exchange	Index	Symbol	Launched Date	Number of Listed Company	Data Source
Indonesia	Jakarta Stock Exchange	Jakarta Composite	JKSE	1978	460	Dow Jones / Bloomberg/OJK
China	Shanghai Stock Exchange	Shanghai Composite (SSE)	SC	1990	1.160	DJ/Yahoo.Finance Bloomberg
India	India Stock Exchange or BSE (Bombay SE)	BSE SENSEX Index	NSE and BSE	1875	5.500 (at year 2016)	Bloomberg/Dow Jones/Yahoo Finance
Russia	MICEX	RTS Index	RTS	1991	694 (dec 2012)	Dow Jones/ Bloomberg/ Yahoo Finance
Brazil	BM & FBOVESPA	BVMF	Ibovespa BI	1968		Dow Jones/ Bloomberg Yahoo.Finance
South Africa	Johannesburg Stock Exchange	Top 40 Index	JSE/FTSE	1887	462	Dow Jones/ Yahoo.Fin Bloomberg
Malaysia	Malaysia Stock Exchange	KLSE Composite	KLSE	1964	909	Dow Jones Yahoo Finance Bloomberg
Singapore	Singapore Stock Exchange	STI Index SGX	STI	1999	776 (July 2016)	Dow Jones Yahoo Finance Bloomberg
Thailand	Stock Exchange of Thailand (SET)	THI Index	SET Index SET50 Index	1975	577	Dow Jones Yahoo Finance Bloomberg
Philippine	Philippine Stock Exchange	PSEi Index	PSEi	1927	413	Dow Jones Yahoo Finance Bloomberg

Appendix 2. VAR Granger Causality

VAR Granger Causality/Block Exogeneity Wald Tests

Sample: 1 485

Included observations: 467

Dependent variable: JSMR				Dependent variable: GGRM			
Excluded	Chi-sq	df	Prob.	Excluded	Chi-sq	df	Prob.
SMGR	8.81481	2	0.0122	JSMR	2.66405	2	0.2639
INDF	8.15020	2	0.0170	SMGR	0.19879	2	0.9054
ADRO	5.52431	2	0.0632	INDF	1.83317	2	0.3999
GGRM	13.39360	2	0.0012	ADRO	8.48225	2	0.0144
RMBA	4.75202	2	0.0929	RMBA	3.86446	2	0.1448
BDMN	0.54288	2	0.7623	BDMN	7.21775	2	0.0271
BNGA	3.53766	2	0.1705	BNGA	2.23064	2	0.3278
GCC	2.65733	2	0.2648	GCC	2.20040	2	0.3328

Dependent variable: SMGR				Dependent variable: RMBA			
Excluded	Chi-sq	df	Prob.	Excluded	Chi-sq	df	Prob.
JSMR	10.07230	2	0.0065	JSMR	0.71863	2	0.6982
INDF	3.05672	2	0.2169	SMGR	1.41183	2	0.4937
ADRO	1.02835	2	0.5980	INDF	1.94192	2	0.3787
GGRM	1.18236	2	0.5537	ADRO	1.11474	2	0.5727
RMBA	3.18928	2	0.2030	GGRM	1.78789	2	0.4090
BDMN	0.56174	2	0.7551	BDMN	0.99156	2	0.6091
BNGA	2.83185	2	0.2427	BNGA	2.84131	2	0.2416
GCC	0.48793	2	0.7835	GCC	5.79126	2	0.0553

Appendix 2. VAR Granger Causality (Continued)

Dependent variable: INDF				Dependent variable: BDMN			
Excluded	Chi-sq	df	Prob.	Excluded	Chi-sq	df	Prob.
JSMR	0.08031	2	0.9606	JSMR	4.44025	2	0.1086
SMGR	0.86060	2	0.6503	SMGR	0.77567	2	0.6785
ADRO	2.74334	2	0.2537	INDF	2.84191	2	0.2415
GGRM	1.90708	2	0.3854	ADRO	18.56940	2	0.0001
RMBA	8.21044	2	0.0165	GGRM	1.28350	2	0.5264
BDMN	1.20833	2	0.5465	RMBA	4.81729	2	0.0899
BNGA	2.19536	2	0.3336	BNGA	0.22997	2	0.8914
GCC	9.72585	2	0.0077	GCC	0.68188	2	0.7111

Dependent variable: ADRO				Dependent variable: BNGA			
Excluded	Chi-sq	df	Prob.	Excluded	Chi-sq	df	Prob.
JSMR	3.80127	2	0.1495	JSMR	0.15618	2	0.9249
SMGR	0.85486	2	0.6522	SMGR	1.05848	2	0.5891
INDF	0.44666	2	0.7999	INDF	2.84948	2	0.2406
GGRM	0.83299	2	0.6594	ADRO	6.49233	2	0.0389
RMBA	1.49076	2	0.4746	GGRM	1.11521	2	0.5726
BDMN	1.95169	2	0.3769	RMBA	2.02566	2	0.3632
BNGA	1.92851	2	0.3813	BDMN	1.14852	2	0.5631
GCC	2.93496	2	0.2305	GCC	0.92811	2	0.6287

Appendix 3. Indonesian Listed Companies with Investment Criteria

Indonesian Listed Companies at BEI	Code	Profit margin as of Dec 2016	Beta based weekly data 2009-2017	Market Cap (IDR Trillion)	D/E Ratio as of Dec. 2016
PT Jasa Marga Tbk	JSMR	5.79%	0.89	45.30	2.10
PT Semen Indonesia Tbk	SMGR	4.68%	1.14	62.40	0.37
PT Indofood	INDF	5.76%	1.13	68.50	0.82
PT Adaro Tbk	ADRO	16.87%	1.05	71.30	0.37
PT Gudang Garam Tbk	GGRM	10.38%	0.66	157.70	0.30
PT Bentoel Int Tbk	RMBA	11.45%	0.57	12.90	0.38
PT Bank Danamon Tbk	BDMN	11.56%	1.26	68.05	0.80
PT Bank Niaga Tbk	BNGA	15.56%	1.03	33.50	0.91

Sumber: OJK, Yahoo Finance, Bloomberg