

Investment Strategy in the Islamic Capital Market: Study on the Indonesia Stock Exchange

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ABSTRACT

The Islamic capital market is a capital market selling Islamic stocks, and is traded based on Islamic principles. Currently, there are many capital markets providing Islamic stock. Islamic capital market concepts have been developed by a number of experts, such as Metwally (1992), Chapra (1992), and Taj-El-Din (2002). This study aims to create a model of investing in Islamic capital markets. It tests whether existing Islamic capital market models are adequate. The results of these tests show that Metwally's model is quite attractive in terms of return and risk, but is constrained by technical problems relating to capital markets that do not allow trade restrictions, as required by Metwally. In contrast, the Chapra model has no constraints in implementation, but its appeal does not consistently outperform or match existing capital market models. Therefore, the study will also examine Islamic capital market models that are both attractive to investors and can be effectively implemented. Findings of this research show the Islamic capital market model using a long-term investment strategy is an attractive option, and proves that investments over longer periods will generally yield higher annualised returns. The annual investment yields the greatest returns, followed by the period of a semester, and then quarterly. Investors who do not have large amounts of cash will generally only invest in certain stocks to serve as their portfolio. The strategy of selecting stocks based on price-to-book ratio (PBR) is quite successful in generating higher return/risk.

Keywords: Islamic capital market models, long-term investment strategy, price to book ratio, stock return

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INTRODUCTION

Developing an Islamic capital market involves screening for shares deemed to meet the requirements of Syariah-compliant stocks. These are listed in an index of Islamic shares. Shanmugan and Zahari

(2009) assumed the first Islamic stock index to be established was the Dow Jones Islamic Market Index, in 1999. However, Mannan (2008) argued that Islamic stock has been acknowledged in Malaysia since 1983 when Bank Islam Malaysia Bhd issued 'Islamic stock' for the first time. Since then, various Islamic stock index has begun to emerge, including the Jakarta Islamic Index (JII) which began operating in 2000. The screening process for Islamic stock includes assessing the issuing business and its ascertaining its financial ratios. Unfortunately, the criteria used for such screening among different stock indexes are not standardised, which, according to Mahfooz and Ahmed (2014), affects the credibility of the Islamic stock index.

The performance of shares in the Islamic index is broadly similar to that of the conventional one. Sadeghi (2008) used event study method to reveal the positive responses from investors during the launch of the Sharia index in the Malaysian capital market. Meanwhile, Siskawati (2011) highlighted the existence of co-integration between the Islamic index, either in Indonesia or Malaysia, and the DJIM global index. Still, when it is correlated to risk of investment, stock listed on the Islamic index carries a lower risk. Yusof and Majid (2007), for example, found that stock volatility in the Islamic index is not affected by interest rate fluctuation like in the conventional index. Nevertheless, the ratio of stock volatility in the Islamic index is still high, as reported by Kurniawan (2008).

The principal issue with conventional capital markets in violation with Islamic law is its speculative practice. Khan (1992) identified many trading mechanisms of the capital market that are in conflict with Islamic law, such as an assumption that shares can be sold several times before the actual stock is transferred, and an option instrument that enables the investors to buy stock at the current price while the stock will actually be transferred at a later point. In addition, Khan (1992) highlights the issue of non-genuine investors, or speculators; speculators seek to make a profit by utilising the fluctuation in stock price. Such actions were a trigger of the crises in the capital market that occurred in the United States in 1930 and 1987.

One factor driving speculative practices is an investor's intention to generate profit in a short period by pursuing undervalued stock and then selling it when it becomes overvalued stock. This investment strategy is frequently referred to as the 'active portfolio' strategy. Alternatively, an investor may choose to follow the passive portfolio strategy. According to Bodie, Kane and Marcus (2009), the passive strategy is preferred by smaller investors. The active strategy will only succeed with a large investment, and the technique used must be different with that employed by other investors. The passive strategy, which does not look for mispriced stock and rarely involves stock trading, limits speculative action.

Some scholars studying the Islamic capital market have attempted to create a

capital market model that has the ability to reduce or even eliminate speculative practices. For example, Metwally (1992) suggests restricting the trading period and implementing price limitation in order to prevent speculation. Chapra (1992) suggests directly prohibiting speculative practices such as short selling and margin trading, while Taj El- Din (2002) recommends the establishment of an institution to assess stock pricing in order to provide a guideline for uninformed investors. These ideas proposed by experts to protect the capital market from speculative practice, however, must be examined since it affects the attractiveness and technical feasibility and applicability of the capital market model. An Islamic capital market with the ability to yield the same returns as the conventional capital market will be appealing to the investor. If a model is appealing and technically feasible in terms of its application, such a model could serve as a reference point for the global Islamic capital market model.

This present study has two objectives. The first is to examine the suitability of the Metwally and Chapra models for the Islamic capital market. The second is to create an Islamic capital market model that is not only applicable but also attractive, and present a strategy for investing in that market. The establishment of an Islamic capital market model is crucial for the realisation of Islamic corporate governance in financial institutions. As suggested by Kasim, Nuhtay and Salman (2013), an established Islamic capital market is required in order to realise a corporate governance framework, since

the other two financial institutions, namely banks and insurance companies, already have established systems.

METHOD

The sample of this study consisted of companies listed on the Indonesia Stock Exchange. In examining the Metwally model, the samples used were the companies listed on the Jakarta Islamic Index (JII) between 2007 and 2013. On the other hand, for the examination of the Chapra model, the samples were drawn from the period three years prior to and three years following the enforcement of Dewan Syariah Nasional-Majelis Ulama Indonesia (DSN- MUI) on the conformity of stock trading on IDX in 2011. In order to evaluate the performance of Islamic capital market model using the passive portfolio management approach (long-term investment), samples of stock listed on JII in the period 2007 to 2014 were used.

The Metwally model (1992) offers a trading model for an Islamic capital market that requires the establishment of a Management Committee that determines the Maximum Share Price (MSP) of each share within the period of no later than three months. The MSP is the total equity divided by the total shares issued by the company. The Management Committee functions to ensure that all companies listed on the stock exchange adopt an acceptable accounting standard, and that stock trading only occurs in the week after the determination of MSP. An evaluation of the attractiveness of the Metwally model was conducted

by simulating it using a trading model that only conducts trading activities four times per year and the maximum price is equivalent to the equity book value. The stock performance achieved through this simulation was later compared with the real stock performance, in terms of both returns and risks. The statistical tool used to test the comparison was a simple t-test model. When the performance of the Metwally model is equal to or above the actual performance of the Indonesia capital market, it can be concluded that the Metwally model is attractive.

The Chapra model (1992) seeks to prevent speculative activities by limiting speculation, and only allowing cash shares purchase (prohibiting margin trading), and avoiding management malpractices. Based on the fatwa DSN-MUI No.80 of 2011, the Indonesia Stock Exchange is considered a capital market with trade mechanisms that satisfy Sharia. This is because speculative practices prohibited by Chapra are also forbidden on the Indonesian Stock Exchange. Therefore, since 2011, the Indonesian Stock Exchange has been a stock exchange that implements the Islamic market model initiated by Chapra.

The Chapra model was examined by comparing the performance of companies listed on JII prior to and upon the enforcement of DSN-MUI fatwa in 2011. Again, the statistical tool used to test the comparison was a simple t-test model. When the performance of the Indonesian Capital Market after the enforcement of DSN-MUI

fatwa is higher than before the enforcement, then it can be concluded that the Chapra model is attractive. In this research, the performances were measured according to expected return, risk (standard deviation, and beta), Sharpe Index, Traynor Index, and Jensen Index.

$$\text{Sharpe index} = (r_i - r_f) / \sigma_i$$

$$\text{Treynor index} = (r_i - r_f) / \beta_i$$

$$\text{Jensen index} = \alpha_i = r_i - [r_f + \beta_i (r_m - r_f)]$$

Where, r_i = stock return, r_f = risk free rate, σ_i = standard deviation of stock return, β_i = beta of stock return, and r_m = market return.

The Islamic capital market model with a long-term investment approach was examined by comparing its quarterly investment, semi-annual investment, and yearly investment performance. To test the strategy of investing in the Islamic capital market, Price to Book Value (PBV) Ratio was used. The use of this ratio was inspired by Metwally's, model which uses the ratio to set the maximum price of stock. The performance of low PBV and high PBV stocks were compared to identify the best strategy for investing in Islamic stock.

RESULTS

Results of the Attractiveness Testing of the Metwally Model and Chapra Model

To test whether the Metwally model is attractive enough, the stock return/risk based on its model simulation was compared with the actual stock return/risk on the stock market. The results of this test are shown in Table 1.

Table 1

Comparison of the returns and risk among the Metwally Model – based returns and real returns

Year	Average Returns of Metwally model	Average Real Returns	Prob. Value	Standard Deviation of Returns under Metwally Model	Standard Deviation of Real Return	Siegel-Tukey Prob. Value
2007	0.241992	0.088100	0.2414	0.616995	0.074170	0.1071
2008	0.442291	-0.110499	0.1772	1.648056	0.110289	0.4886
2009	-0.383381	0.054914	0.2163	1.598671	0.029686	0.0001
2010	0.239186	-0.008555	0.0219	0.496341	0.059516	0.0212
2011	0.008205	-0.002926	0.8253	0.228640	0.020308	0.0000
2012	0.184488	0.006816	0.1864	0.662232	0.025774	0.0413
2013	0.132972	-0.010899	0.0000	0.090549	0.016990	0.8241
2007-2013	0.119408	0.007239	0.1547	0.943463	0.078442	0.0000

Table 1 shows the Metwally's model generated equal or higher returns compared with the real returns of stock during the period 2007 to 2013. The absolute average returns produced by the Metwally model were higher than the real returns, excluding the returns yielded in 2009. In addition, the average returns generated by Metwally model were significantly higher than the real return in 2010 and in 2013. Even though the Metwally's model has the potential to yield higher returns, the risks of stock embedded in this model are also high.

The attractiveness of the Chapra model was tested to whether the stocks listed on JII were able to perform better after the enforcement of DSN-MUI fatwa No. 80 of 2011. The performance of stocks listed on JII for the years 2007, 2009, and 2010 were compared to the performance of stock listed on JII for the years 2011, 2012, and 2013. Table 2 compares the performance of stocks listed in JII prior to and upon the issuance of DSN-MUI fatwa No. 80, based on real returns.

Table 1 shows the real returns of stock listed on JII prior to the enforcement of DSN-MUI fatwa No. 80 (ERI1) were higher. The total risks (standard deviations) decreased significantly, and systematic risks (beta) showed a non-significant difference. The Sharpe, Traynor and Jensen indices were used to calculate the return, along with the risk embedded within it. The test results for these indices in relation to the stock listed on JII prior to and upon the enforcement of DSN Fatwa are as follows (refer Table 3).

Table 3 shows using Sharpe measure of the stock listed on JII indicated a significant decrease upon the enforcement of the fatwa. There was no significant variance in the Traynor ratio, and the Jensen ratio showed a significant decrease. Thus, it can be concluded that the Islamic capital market based on the Chapra model, is less attractive because of its tendency towards lower stock return/risk.

Table 2
Comparison of real returns, standards deviation, and beta prior to and upon the enforcement of DSN-MUI Fatwa No.80

Method	df	Value	Probability
t-test: Return	356	4.624245	0.0000
t-test: STD	356	6.155552	0.0000
t-test: BETA	356	1.517053	0.1301

Category Statistics				Std. Err.
Variable	Count	Mean	Std. Dev.	of Mean
ERI1	179	0.035935	0.103933	0.007768
ERI2	179	-0.002355	0.038352	0.002867
STD1	179	0.176026	0.173510	0.012969
STD2	179	0.093424	0.046117	0.003447
BETA1	179	0.834426	2.527061	0.188881
BETA2	179	1.182332	1.740112	0.130062

Table 3
Comparing Sharpe, Treynor, and Jensen Measure prior and after of DSN-MUI Fatwa

Method	df	Value	Probability
t-test: Sharp	356	6.658640	0.0000
t-test: Traynor	356	1.418282	0.1570
t-test: Jensen	356	5.540117	0.0000

Category Statistics				Std. Err.
Variable	Count	Mean	Std. Dev.	of Mean
SHAR1	179	-0.028837	0.449071	0.033565
SHAR2	179	-0.367479	0.511192	0.038208
TREY1	179	0.005344	0.191463	0.014311
TREY2	179	-0.019238	0.130817	0.009778
JEN1	179	0.005437	0.123603	0.009238
JEN2	179	-0.059274	0.095622	0.007147

Model of Islamic Capital Market Using a Long-Term Investment Strategy

This paper examined the performance of Islamic stocks when a long-term investment strategy is used. The performance measures used were the returns and risks, and the long-term period categorised into quarterly, semi-annual, and annual. The first category,

the quarterly period, refers to the Metwally model (1992), which uses quarterly reports (interim reports). The results are discussed below.

The first finding relates to the return of stock. Table 4 shows the comparison between the annualised total return using annual returns, semi-annual returns, and

quarterly returns. It further shows that the average annual return was higher than the average semi-annual returns, and semi-annual returns were higher than the average quarterly returns.

There is a tendency that the longer the selected time horizon, the higher the returns. This value will differ significantly if the transaction cost is also taken into account. In the last three columns of Table 4, the differences between the average annual returns and the average semi-annual returns, annual and quarterly returns, and semi-annual and quarterly returns are shown. The differences between the three columns are positive (0.0079; 0.0183; and, 0.015); this further supports the findings, which indicate annual returns are higher than the semi-annual returns and quarterly returns, that and semi-annual returns are higher than the quarterly returns.

The second finding is in relation to the stock risks. Table 5 compares stock

risks between the annual, semi-annual, and quarterly periods.

Table 5 shows that, in general, the lowest risk occurred when the investor selected the quarterly time horizon, and the highest risk occurred with the semi-annual period. Therefore, it cannot be concluded a longer investment period will lead to lesser or greater risks. In general, the risk rules suggest that the longer the investment period, the greater the risk. The risk pattern and time horizon, however, are not fully applicable to Islamic share investment. It has been proven that the risk of investment in the annual period is lower than the risk of investment in the semi-annual period.

Another interesting finding is that such risks are classified according to the period in which the capital market operates under normal conditions, and in which the capital market operates under decreasing returns (such as in 2008 and 2011). During the normal period (2007, 2009, 2010, 2013,

Table 4
Comparison between the annualized total return using the annually, semi-annually, and quarterly returns

Year	Annualized total return			Differences of Annualized Total Returns		
	Annually	Semi-annually	Quarterly	Annually–Semi Annually	Annually – Quarterly	Semi-annually – Quarterly
2007	0.359057	0.32682703	0.3887639	0.032230347	-0.0297065	-0.0619368
2008	-1.02625	-1.04367717	-1.0332647	0.017424903	0.007012477	-0.0104124
2009	0.754216	0.70230689	0.6768777	0.051909356	0.077338529	0.02542917
2010	0.445649	0.45813105	0.4229463	-0.01248175	0.022702964	0.03518471
2011	-0.00253	-0.03201142	-0.0354135	0.029477665	0.032879746	0.00340208
2012	0.058604	0.00376085	-0.001922	0.054842769	0.060525619	0.00568285
2013	0.221399	0.254241	0.2588696	-0.03284205	-0.03747068	-0.0046286
2014	0.249578	0.32663523	0.2363041	-0.07705753	0.013273624	0.09033116
AVERAGE	0.132465	0.12452668	0.1141452	0.007937964	0.018319473	0.01038151

Table 5
Comparison of the stock risks among the annual period, semi-annual period, and quarterly period

Year	The average risk of term investment			Risk Differences		
	Annual	Semi-annually	Quarterly	T – S	T – K	S – K
2007	0.627314	0.64391418	0.6692367	-0.01659994	-0.04192246	-0.0253225
2008	1.128703	1.11259024	1.0992265	0.016112898	0.029476665	0.01336377
2009	0.531686	0.52868244	0.5216459	0.00300384	0.010040355	0.00703651
2010	1.057551	1.05705568	1.1003714	0.000494896	-0.04282086	-0.0433158
2011	0.410237	0.39912556	0.3056392	0.011111722	0.104598061	0.09348634
2012	0.333519	0.34333974	0.3181696	-0.00982089	0.015349245	0.02517014
2013	1.403948	1.4079951	1.3985035	-0.00404712	0.00544449	0.00949161
2014	0.320785	0.38045834	0.3293847	-0.05967288	-0.00859924	0.05107364
AVERAGE	0.726718	0.73414516	0.7177722	-0.00742718	0.008945782	0.01637297

2014), the risk of annual investment was the lowest, followed by quarterly investment whereas, the risk of semi-annual investment was the highest (annual rate risk was 0.712, quarterly rate risk was 0.722, and semi-annual rate risk was 0.726). On the other hand, during the period of decreasing return (where the annual returns were negative), the annual investment resulted in the highest rate risk, followed by semi-annual, and the lowest rate risk was presented by quarterly investment. This requires the investor to prudently estimate the capital market condition when calculating investment risks.

When investing in a fund, the investor will have to consider both its returns and risks. If the returns and risks are considered,

the results will be as shown in Table 6.

From Table 6, it can be seen that the annual investment had the best ratio, followed by the semi-annual period, and finally, the quarterly period. When the investment performance was classified according to capital market condition, the results did not change. During normal conditions, the best investment performance was seen in the annual period, while the semiannual and quarterly term investments were not as strong. The lowest negative ratio was in the annual period, followed by the semi-annual, and then the quarterly period. Accordingly, it can be concluded that the longer the investment period, the better its performance.

Table 6
Rate of return and risk ratio: Annually, semi- annually and quarterly

	Annual	Semi-annual	Quarterly
Average ratio for all periods	0.182278	0.16962134	0.159027
Average during the bullish period	0.488561	0.4750494	0.4569281
Average during the bearish period	-0.6685	-0.711568	-0.7606978

DISCUSSION

The Attractiveness of the Metwally and Chapra Models

The Metwally model of the Islamic capital market is attractive. The model generates returns that are at least equal to those of conventional stocks, and this model is able to yield an outperforming return against the interest rate. In 2008 when the capital market encountered a crisis, the Metwally model was able to yield considerably higher returns, exceeding 44%. The results of the comparison of the returns generated by the Metwally model and the real capital market were not statistically significant. However, the returns generated by the Metwally model were much higher in absolute terms (11.9% compared to 0.7%). The insignificant result in statistical terms might be due to the high standards error, which resulted in a lower t-value. When it was analysed annually, it was found the Metwally model yielded significantly higher returns in 2013 and in 2010. In the other years, there were no statistically significant differences.

The results in Table 2 also show that during the period of 2007 to 2013, the returns of stock based on the Metwally model only encountered a one-time negative average in 2009, whereas the real return of stock experienced negative averages on four occasions, in 2008, 2010, 2011, and 2013. These results show that the capital market based on the Metwally model had a lower risk, which increases the attractiveness of the capital market. According to the objective of the Islamic capital market, which is to suppress speculative practices,

this decreased risk confirms the Islamic capital market based on the Metwally model meets this objective of reducing speculative action. However, the Islamic capital market requires investors to be more aware of and careful in investing their money in the form of stocks. The information presented in Table 2 shows the Metwally model had a higher standard deviation of returns compared with the current capital market model.

The results of the attractiveness test described above thus show the Islamic capital market model based on the Chapra model is less attractive in terms of yields (capital gain). The average returns of stock within the three years prior to the enforcement of the DSN fatwa (which is similar to Chapra's ideas) were much higher than after enforcement of the fatwa. However, this cannot avoid the possible existence of bias due to the decreasing market performance during the period of enforcement of fatwa. When t comparison was made between 2010 and 2011, it resulted in a statistically insignificant difference. These different results show that the differences between JII performance prior to and upon the enforcement of the DSN fatwa were not solely affected by the fatwa.

When portfolio performances, which include the returns and risks, were simultaneously compared, the results were not conclusive. When the Sharpe index was used, a decreased performance post-fatwa was found. Using the Treynor index, there was no difference between the performance

prior to and upon the enforcement of the fatwa. The use of the Jensen index produced the same result as the Sharpe index.

Islamic Capital Market and Investment Strategy

The long-term investment strategy is a passive strategy, which involves diversifying the investment into all stocks listed in the stock index. This strategy might be used by investors who have large funds, or by mutual fund companies. For investors with small funds, they need to select stocks that are listed on the stock index. For example, in the case of investment in JII, they need to select from 30 stocks. To make this selection, Metwally (1992) suggests taking the Book Value of Equity per Share (BVPS) as the reasonable price. The best stocks to select are those where the price is not higher than their BVPS. Thus, the selection must be based on the ratio between stock price and BVPS, known as the Price to Book Ratio (PBR).

This research has examined the advantages offered by the strategy of selecting stock based on PBR. This was achieved by sorting the stock listed on JII in every year based on PBR, and then classifying these stocks into two groups. The first group consisted of 10 stocks with small PBR values while the second consisted of 10 stocks with high PBR values. The results showed that the group of stocks with low PBR values offered more advantageous compared with those low PBR values (see Appendix for detailed results). This finding is not surprising. Indeed, the expectation

model developed by Fama and French (1992), known as the 3 Factors Model, includes PBR as one of its factors. A newer model developed by Fama and French (2015) also uses PBR as one of five factors to estimate stock return. An additional advantage offered by low PBR relates to the common phenomenon of small effect, as suggested by Banz (1981).

CONCLUSION

This study has shown the Islamic capital market model suggested by Metwally (1992) will in fact result in attractive returns if it is implemented. However, this model requires both price and trading period limitations. Therefore, technically, it is not applicable. On the other hand, Chapra's model is technically unconstrained in terms of trading, but its performance is not as attractive. The Islamic capital market based on Chapra's model, in fact, results in relatively low risk, but also yields low returns. If the return and risk factors are considered simultaneously, the performance of this Islamic capital market model is unfavourable compared with the conventional one. Therefore, the study developed an Islamic capital market model based on long-term investment strategy, which has been shown to be an attractive option. This study has proven that investments made over a longer period of time, in general, will yield higher annualised returns. Additionally, groups of stocks that have low PBRs perform better. This knowledge can be used as a strategy to invest in Islamic capital markets.

REFERENCES

- Banz, R. W. (1981). The relationship between return and market value of common stocks. *Journal of Financial Economics*, 9, 3-18.
- Bodie, Z. A. K., & Marcus, A. J. (2009). *Investment* (8th ed.). McGraw-Hill Irwin, NY
- Chapra, U. M. (1992). Comment on Metwally's "The role of the stock exchange in an Islamic economy". In G. S. Abod, A. Ghazali and O. S. Agil (Eds.), *An introduction to Islamic Finance*. Kuala Lumpur: Quill Publisher.
- Dewan Syari'ah Nasional. (2011). *Fatwa DSN No. 80/ DSN-MUI/III/2011 Tentang penerapan prinsip syariah dalam mekanisme perdagangan efek bersifat ekuitas di pasar reguler bursa efek*, DSN-MUI.
- Fama, E. F., & French, K. R. (1992). The cross section of expected Return. *The Journal of Finance*, 47, 427-465.
- Fama, E. F., & French, K. R. (2015). A five-factor asset pricing model. *Journal of Financial Economics*, 116, 1-22
- Kasim, N., NuHtay, S. N., & Salman, S. A. (2013). Shariah governance for Islamic capital market: A step forward. *International Journal of Education and Research*, 1(6), 1-14.
- Khan, A. M. (1992). Commodity exchange and stock exchange. In an Islamic economy. In G. S. Abod, A. Ghazali & O. S. Agil (Eds.), *An introduction to Islamic Finance*. Kuala Lumpur: Quill Publisher.
- Kurniawan, T. (2008). Volatilitas saham syariah (analisis atas Jakarta Islamic Index). *KARIM Review, Special Edition*, 1(8), 41-56.
- Mannan, M. (2008). Islamic capital market. In R. Millar & H. Anwar (Eds.). *Islamic finance: A guide for international business and investment*. United Kingdom: GBM Publishing Ltd.
- Mahfooz, S., & Ahmed, H. (2014). Sharī'ah investment screening criteria: A critical review. *Journal of King Abdul Aziz University: Islamic Economics*, 27(1), 3-37.
- Metwally, M. M. (1992). The role of stock exchange in an Islamic economy. In G. S. Abod, A. Ghazali & O. S. Agil (Eds.), *An introduction to Islamic Finance*. Kuala Lumpur: Quill Publisher.
- Sadeghi, M. (2008). Financial performance of shariah-compliant investment: evidence from Malaysian stock market. *International Research Journal of Finance and Economics*, 20(8), 15-24.
- Shanmugam, B., & Zahari, Z. R. (2009). *A primer on Islamic finance*. The Research Foundation of CFA Institute.
- Siskawati, E. (2011). Islamic capital market interconnection: Evidence from Jakarta Islamic index to the regional Islamic market and global Islamic market. *Proceedings of the ICSCA 2011*. Malaysia.
- Taj El-Din, I. S. (2002). Toward an Islamic model of stock market. *Journal of King Abdul Aziz University: Islamic Economics*, 14, 3-29.
- Yusof, R. M., & Majid, M. S. A. (2007). Stock market volatility in Malaysia: Islamic versus conventional stock market. *Journal of King Abdul Aziz University: Islamic Economics*, 20(2), 17-35.

APPENDIX

The Comparison of the Return of Islamic Stock According to the Price to Book Ratio

Year	Investment period	Average Return		P Value	Conclusion of the most advantagous Investment
		10 lowest PBR	10 highest PBR		
2007	Quarterly	0.440611	0.092696	0.3262	SMALL NOT SIGNIFICANT
	Semi-annually	0.360669	0.06173	0.3914	SMALL NOT SIGNIFICANT
	Annually	0.395722	0.086784	0.3529	SMALL NOT SIGNIFICANT
2008	Quarterly	-0.683183	-1.220081	0.3305	SMALL NOT SIGNIFICANT
	Semi-annually	-0.689053	-1.240654	0.3182	SMALL NOT SIGNIFICANT
	Annually	-0.752569	-1.301498	0.2738	SMALL NOT SIGNIFICANT
2009	Quarterly	0.891376	0.309305	0.023	SMALL SIGNIFICANT
	Semi-annually	0.904155	0.376736	0.0463	SMALL SIGNIFICANT
	Annually	0.964045	0.426584	0.0448	SMALL SIGNIFICANT
2010	Quarterly	0.941261	0.146952	0.0958	SMALL SIGNIFICANT
	Semi-annually	0.514495	0.235634	0.1607	SMALL NOT SIGNIFICANT
	Annually	0.499466	0.242791	0.2006	SMALL NOT SIGNIFICANT
2011	Quarterly	0.101409	-0.149055	0.036	SMALL SIGNIFICANT
	Semi-annually	0.186575	-0.207476	0.0165	SMALL SIGNIFICANT
	Annually	0.233137	-0.172973	0.02	SMALL SIGNIFICANT
2012	Quarterly	-0.236973	0.168337	0.0098	BIG SIGNIFICANT
	Semi-annually	-0.24309	0.187783	0.0102	BIG SIGNIFICANT
	Annually	-0.18788	0.220043	0.012	BIG SIGNIFICANT
2013	Quarterly	0.589637	-0.057004	0.3048	SMALL NOT SIGNIFICANT
	Semi-annually	0.572405	-0.080251	0.3027	SMALL NOT SIGNIFICANT
	Annually	0.517883	-0.151524	0.2896	SMALL NOT SIGNIFICANT
2014	Quarterly	0.163264	0.158567	0.9558	SMALL NOT SIGNIFICANT
	Semi-annually	0.214414	0.215744	0.9903	BIG NOT SIGNIFICANT
	Annually	0.147747	0.175423	0.7484	BIG NOT SIGNIFICANT
TOTAL		0.243563458	-0.061475292	0.0387	SMALL SIGNIFICANT