

# INVESTIGATING STOCK MARKET REACTION ON JAKARTA ISLAMIC INDEX (JII) ANNOUNCEMENT

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## *Abstract*

*This project was designed to explore the stock market reaction as Jakarta Islamic Index (JII) was announced. It was indicated by abnormal return appearance for the date once the listed companies (emiten) were shown on JII, and also several days before and after the announcement day. The research employed event studies method where the data was collected from daily stock price of Indonesian Stock Exchange data base. By using market adjusted model, the result revealed that during 11 days observation, 21 stocks from JII latest list showed significant abnormal return, at 5% significant level. Thus, it can be concluded that the information presented through JII announcement was very important with the result that the appearance of abnormal return was significantly influenced during and around the announcement day. In addition, information that implied positive signal toward the investors would also resulted in positive abnormal returns.*

**Keywords:** *Jakarta Islamic Index, Abnormal Return, Market Reaction, Event Studies.*

## **Abstrak**

*Tujuan dari penelitian ini adalah untuk mengetahui reaksi pasar saham dari peristiwa ketika Jakarta Islamic Index (JII) diumumkan. Indikasi reaksi pasar saham ditunjukkan dengan tampil abnormal return selama tanggal ketika emiten berada dalam daftar JII, dan juga beberapa hari sebelum dan sesudah hari announcement. Metode penelitian ini disebut studi event. Data yang dikumpulkan dari harga saham harian dari Bursa Efek Indonesia data base. Dengan menggunakan model pasar disesuaikan, ditemukan bahwa 21 saham JII dari daftar terbaru, selama pengamatan 11 hari menunjukkan abnormal return yang signifikan, pada tingkat signifikan 5%. Kesimpulan dari temuan ini adalah bahwa informasi dari JII pengumuman memiliki kandungan penting yang menyebabkan abnormal return selama dan sekitar hari pengumuman. Selain itu informasi yang menunjukkan sinyal positif bagi investor, sehingga menyebabkan abnormal return positif.*

**Kata Kunci:** *Jakarta Islamic Index, Abnormal, Reaksi Pasar, Event Studies*

Jakarta Islamic Index launched on July 3, 2000 by PT. Indonesia stock exchange (IDX) and PT. Danareksa Investment

Management (DIM). This index is expected to boost investor confidence to expand their investment in Sharia compliance stock. The

criteria of the stock that comply with syariah are arranged by Sharia Supervisory Board of PT DIM. Before Jakarta Islamic Index is launch, The New York Stock Exchange was a pioneer in establishing the first Shariah-compliant index with The Dow Jones Islamic Market Index (DJIM) introduced since 1999 in Manama, Bahrain, to meet the wishes of investors who want to invest on syariah compliance's stock.

The JII's list announcement is expected to have the content of the information that is capable of giving a signal changes according to the value of its content. Signals or information will be responded positively by the market which resulted in the increased value of stock transaction in Indonesia stock exchange.

This research will investigate stock market reaction in the form of abnormal return on shares that are in the list of Jakarta Islamic Index.

Jakarta Islamic Index is a stock market index to help facilitate the trading of public companies according to Syariah business code. Following Islamic law prohibits a company from involving itself in activities related to gambling, speculation, and traditional banking and financing. The JII should not list equities that produce or distribute food, drink, or morally harmful items that stand in contradiction with Islamic values. Based on National Islamic Council- Board of Indonesian Islamic Scholar (Dewan Syariah Nasional-Majelis Ulama Indonesia /DSN-MUI) and regulations of Bapepam-LK No. IX.A. 13 about the issuance of Islamic Securities, the main types of activities of a business entity that is judged to not meet Islamic law of contract are: 1) gambling activity and trade on prohibited items. 2) Organizing financial services that apply riba, buy and sell risk containing gharar and

maysir. 3) Produce, distribute, trade or providing: a. the goods and or services that are unlawful because of its product (haram li-dzatihi) b. Goods or services that are unlawful not because of its product (haram li-ghairi dzatihi) set by the DSN-MUI, c. goods and or services that damage the morals and character of the people. 4) Investing in the company where its interest-based debt is dominant than the investment capital.

Criteria of Islamic equity are: 1) The business activities are not include as described above. 2) Do not do trades that are not accompanied by the delivery of goods/ services and do not trade with false supply and demand. 3) Islamic equity do not allow to exceed the financial ratios as follows: a. Total interest-based debt in comparison with total asset is not more than 45%. b. Total interest income and other income that is not permissible (non Halal income) as compared to total revenue is not more than 10%.

To set shares that conclude in Jakarta Islamic Index, selection process are as follows: 1) the shares will be selected based on the list of Shariah-compliant Securities (Daftar Efek Syariah), issued by Bapepam-LK. 2) Select the 60 shares of Islamic Securities List based on the order of largest market capitalization over the past 1 year. 3) From 60 stocks, 30 stocks are selected based on the level of liquidity or the value of the transaction in a regular market over the past 1 year.

Jakarta Islamic Index will be reviewed every six months, i.e. each January and July or based on the period specified by Bapepam-LK. While the change of type of business issuers are monitored continuously based on data publicly available. The base day is January 2, 1995, with an index value of 100.

Announcement of the stocks that are listed in the JII could be considered as good news or bad news by investors. If considered as good news, there will be many investors who are interested in buying the stocks of companies who are listed in the JII. A growing number of investors who are interested in buying the company's shares caused the increasing of stock trading volumes that can result the occurrence of abnormal return. The stock market is conclude as an inefficient market if the price are not reflected of all the information. If there are abnormal return, its indicate the distribution of information is not symmetrical (information asymmetry), that only a few parties who obtain such information. As a result, the party that gets this information can have an abnormal return (Jogiyanto, 2003:390-391).

Event studies are an important tool in finance which concern with the valuation of firms and the changes in firm value (Serra, 2002). The changing of the firm value resulting from, for example, changes in capital Structure, dividend announcement, financial statement announcement, etc. In general, the value of a firm is difficult to measure. However, if there is an efficient market for the firm's stock, the impact of decisions of this type can be measured by the change in the stock price around the time

when the decision becomes public knowledge. Although such events can be studied in many different ways, the empirical finance literature has taken a particular approach based on statistical tests of the significance of abnormal stock returns around event dates. Figure 1 shows the reaction of stock prices in stock market to news around the events.

Event Study can be used to test the content of information and also can be used to test the efficiency of market (semi-strong-form). Testing the content of information meant to see the reaction of an announcement. If the announcement contains some information, then hopefully the market will react at the time the announcement was received by the market. In event study, there are very important to test for evidence of under reaction, overreaction, early reaction and delayed reaction around the event. If market is "semi-strong-form efficient", the effects of an event will be reflected immediately in security prices. Thus a measure of the event's economic impact can be constructed using security prices observed over a relatively short time period (Mishkin, 2001).

This research will investigate stock market reaction in the form of abnormal return on shares that are in the list of Jakarta Islamic Index.

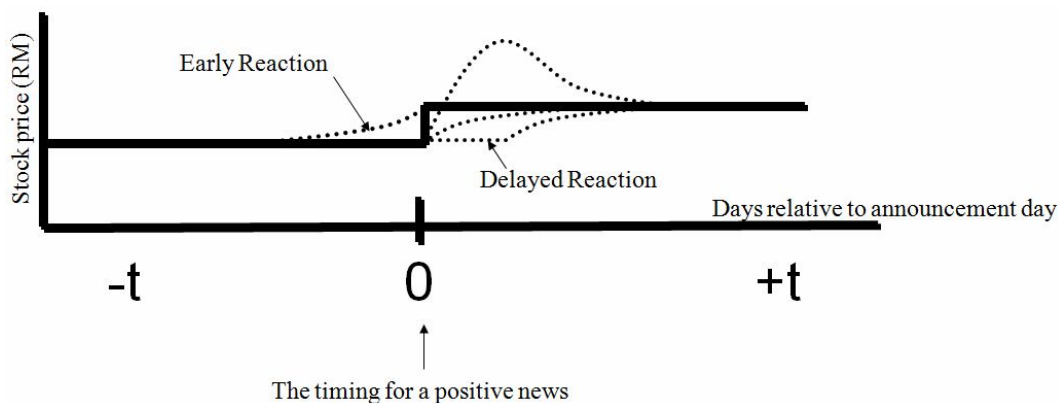


Figure 1. Reaction of Stock Prices in Stock Market to News Around the Events

### Methodology

In this study, the population of the research was the whole company that go public the period started 2 January 2004 until 3 January 2005. This time period was chosen because since JII first launched in July 2000, always responded positively by investors, and so in 2004 and 2005 is expected to market the better reaction. The sample in this study is the whole company in the Jakarta Islamic Index from January 2004 until June 2005, continuously published financial statements and has reported its stock price on the Indonesia stock exchange in January 2004 to June 2005. Stock price data collection is obtained from the Indonesia stock exchange. The Data is closing stock price, and the composite stock price Index. Data are also obtained from the website: <http://www.Indoexchange.com> and other supporting data that relevant to the study.

For the purpose of the study market is hypothesized to react positively to JII announcement. There for stock's abnormal return around the date of the JII announcement are predicted. Average Abnormal Return each company are counted before, during, and after the JII announcement.

Calculation of the abnormal return using adjusted market model using formula:

$$AR = Rit - Rmt$$

Where, AR = Abnormal Return; Rit = individual stock return; and Rmt: Stock Market Return

Where:

$$Ri,t = (Pi,t - Pi,t-1) / Pi,t-1$$

And

$$Rm,t = \frac{IHSgt - IHSgt-1}{IHSgt-1}$$

Where, Rm,t = Stock Market Return at t period; IHSgt = composite index of the stock at t period; IHSgt-1 = composite index of the stock at t-1 period

A t-test is used to compare an average of two samples that are interconnected in a single group such as abnormal return before JII announcement, compare with abnormal return after JII announcement. The calculations in this research will use the Excel program and SPSS for windows. Perform a test statistic for the return is not normal to see the significance of abnormal return. Significant means abnormal return occurs in significant statistik not equal to test

Table 1. Research Sample based of Proporsive Random Sampling

No	Periode	Event Date	Number of Population	Other Event (Divident, Right Issue, Stock Split, etc)	Number of sample
1	2 Jan – 30 Jun 2004	19 Des 03 s/d 9 Jan 04	30	0	30
2	1 Jul – 31 Dec 2004	24 Jun 04 s/d 9 Jul 04	30	7	23
3	3 Jan – 30 Jun 2005	27 Dec 04 s/d 10 Jan 05	30	0	30
<b>Total</b>					<b>83</b>

Data Source: Pojok BEI, 2004 – 2005

Table 2. Abnormal Return of Stock

t/stock	1	2	3	4	5	6	7
-5	0.035375	0.024548	0.040677	0.021928	0.007129	0.016942	1.042092
-4	0.002472	0.054123	0.059161	0.001164	0.005269	0.008123	0.02751
-3	0.026119	0.031729	0.008095	0.01805	0.01136	0.007522	0.016946
-2	0.009674	0.000839	0.009291	0.018807	3.54E-05	0.003808	0.000721
-1	0.002320	0.027665	0.014005	0.028164	0.00219	0.012263	0.016705
0	0.001291	0.042262	0.010049	0.012143	0.14832	0.01141	0.01295
1	0.016713	0.006864	0.014231	0.025859	0.027475	0.007692	0.012346
2	0.005543	0.032670	0.010909	0.020837	0.001175	0.001208	0.001208
3	0.036062	0.023278	0.015489	0.009851	0.012453	0.009767	0.002015
4	0.005153	0.048199	0.057407	0.01012	0.03779	0.005462	0.047701
5	0.019084	0.016774	0.011187	0.011187	0.024643	0.002591	0.016655

t/shm	8	9	10	11	12	13	14
-5	0.00633	0.011162	0.067643	0.036274	0.000739	0.023124	0.045818
-4	0.000187	0.01177	0.003736	0.00644	0.044568	0.026547	0.042775
-3	0.055593	0.017241	0.044444	0.016431	0.016811	0.044737	0
-2	0.01119	0.061794	0.017253	0.017055	0.003303	0.036278	0.019336
-1	0.028164	0.020806	0.01094	0.011369	0.020756	0.010946	0.024453
0	0.010017	0.054296	0.022627	0.013991	0.061908	0.029654	0.008928
1	0.00231	0.110582	0.124218	0.003331	0.008624	0.018123	0.016445
2	0.039895	0.004514	0.037909	0.025062	0.053377	0.005929	0.003612
3	0.002158	0.005176	0.007645	0.013468	0.035715	0.000421	0.006054
4	0.035235	0.041624	0.011824	0.014316	0.005384	0.009927	0.031532
5	0.003305	0.012855	0.021755	0.009132	0.032021	0.022061	0.013606

t/shm	15	16	17	18	19	20	21
-5	0.022471	0.031944	0.007437	0.006303	0.016953	0.042892	0.02668
-4	0.006547	0.004266	0.006547	0.006455	0.007855	0.013966	0.02619
-3	0.000176	0.012921	0.014807	0.001932	0.00352	0.005822	0.013825
-2	0.022161	0.029277	0.023384	0.003303	0.003303	0.030817	0.010548
-1	0.010556	0.001497	0.003079	0.003774	0.005437	0.017861	0.015506
0	0.005909	0.004269	0.000833	0.04335	0.004269	0.004572	0.008865
1	0.033943	0.013102	0.034386	0.019596	0.007474	0.030212	0.010582
2	0.006115	0.016118	0.014938	0.010909	0.012079	0.014938	0.008451
3	0.080224	0.089947	0.050861	0.002158	0.03155	0.065877	0.012129
4	0.02051	0.005384	0.026511	0.017289	0.005384	0.009134	0.004505
5	0.000241	0.000861	0.007779	0.011187	0.022057	0.009721	0.027628

$t = \text{average abnormal return} / \text{error of estimation standard}$

While error of estimation standard calculated as follows:

$$KSE_t = \sqrt{\frac{\sum (RTN_{i,t} - RTN)^2}{(k-1)}} \cdot \frac{1}{\sqrt{k}}$$

Where:

KSE t = error of estimation standard

RTN<sub>i,t</sub> = abnormal return individual stock at t period

RTN = average abnormal return of individual stock at t period

k = number of stock

To determine the 95% degree of confidence in this research, with significance level (á) of 5%, It used data testing with paired sample t test method on each dependent variable to examine if JII announcement gives effect to the Abnormal Return of stock. If sig-t (probability) > 1,645, so the hypothesis is accepted.

### Result of Research and Discussion

In this study, first step is gather information about the list of the 30 stocks that are in the list of JII. Next step is to find out the date when each stock in the sample has announced in JII list. From that date, stock price list is gathered at five trading days before the announcement, and five days after the announcement. Finally compute the abnormal return using formula from adjusted market model. The results are presented on table 2.

Significant test is applied on the accumulated abnormal return as follow:

Table 3. Abnormal return and accumulated abnormal return

Period	Average abnormal return	Accumulated abnormal return
-5	0.07307	0.07307
-4	0.01741	0.09048
-3	0.01753	0.10801
-2	0.01582	0.12383
-1	0.01374	0.13756
0	0.02438	0.16194
1	0.02591	0.18785
2	0.01559	0.20344
3	0.02440	0.22784
4	0.02145	0.24928
5	0.01411	0.26339

From the table above, it can be seen an average abnormal return is appeared around the event when JII has announced at minimum of 0,01374 or 1.4% that occur at t-4 and average abnormal return found at maximum of 0,07307 or 7.3% occurred in t-5. While the minimum accumulated average return of 7.3% at t-5 and maximum 26.3% at t+5.

The calculation of the error of estimation standard are summarized in table 4 below.

Table 4. List of KSE and t-test result

Hari ke	KSE	t-test
-5	0.048582644	1.504002
-4	0.004000886	4.352278
-3	0.003325935	5.270008
-2	0.003275411	4.829327
-1	0.001940879	7.077228
0	0.007311519	3.334042
1	0.006966818	3.719057
2	0.003164387	4.926812
3	0.005798202	4.207369
4	0.003730868	5.748582
5	0.001931239	7.306736

From the table 4, the t-test of all sample are significance, because it is greater than 1, 645 except t-test on t-5. This indicates the JII announcement is considered to have the content of the information thereby affecting investors to trade shares actively and therefore raises abnormal return. This could happen if investors perceive that JII announcement is considered good news that could push investors to infuse more capital on the stock.

### Conclusion

Based on research study with market adjusted model, abnormal return are discovered in the days when stock are announce in the list of Jakarta Islamic Index (JII). This shows that the information of JII announcement is information that has significant content and is considered meaningful by investors. In addition, abnormal return can occur because of a presumption that the information is good news that will encourage investors to invested capital with active trading on shares of the JII listed stock.

This study has limitations of its short period of observations, that could be made only at t-5 and t+ 5 around the date of Jakarta Islamic Index (JII) announcement. Hence, future research with longer period of observations is need to be done, so hopefully can get an overview of the magnitude of the abnormal return is more objective.

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