Market Reaction to Cabinet Reshuffle: The Indonesian Evidence

Supramono1*, W. Widhiastuti2, I. Utami3

1Department of Management, Faculty of Economics and Business Universitas Kristen Satya Wacana Salatiga, Indonesia, 2Department of Management, Faculty of Economics and Business Universitas Kristen Satya Wacana Salatiga, Indonesia, 3Department of Management, Faculty of Economics and Business Universitas Kristen Satya Wacana Salatiga, Indonesia.
*Email: supramono@staff.uksw.edu

ABSTRACT

This event study investigates the Indonesian capital market reaction to the announcement of cabinet reshuffle as a major political event in Indonesia. We also detect the possibility of size effect anomaly related to this political event. Consequently, we not only study 43 large-capitalization firms that are classified into LQ 45 index but also 26 small-capitalization shares. Our findings show that there is no significant abnormal return surrounding the announcement date. We conclude that the announcement of cabinet reshuffle does not contain information value to the market and does not cause size effect.

Keywords: Event Study, Market Reaction, Size Effect, Cabinet Reshuffle, Abnormal Return

JEL Classification: M2

1. INTRODUCTION

Capital market contributes significantly to a country’s economy (Malyshko and Tykomyrova, 2011; Kapoor, 2013; Omoniyi et al., 2014; Geetha and Swaminathan, 2015). Sindhu et al. (2014) argue that capital market does not only facilitate security trading but also relationship between firms and their investors. Besides, capital market helps allocate economic resources efficiently. An important factor that affects share price movement in capital market is political event (Angelovska, 2011). A major political event in a country will affect the political situation in that country. A stable political condition makes investors feel safe to invest. On the contrary, an unstable political condition increases risks that eventually discourage investors to invest (Manzoor, 2013; Mahmood et al., 2014). Capital market will react to a major event affecting the country’s condition. Previous studies show the capital market reaction to various political events, such as Suleman (2012), Gul et al. (2013), Manzoor (2013), Chandra (2015), and Najaf et al. (2015). In the Indonesian context, Suryanto (2015) focus on shares of larger firms to investigate capital market reaction to political events.

This study aims to expand previous studies by focusing on the market reaction of small-capitalization shares. It is likely that the size effect causes shares of small firms to overreact to an event relative to shares of large firms as indicated by higher abnormal returns of share of small firms than shares of small firms (Banz, 1981). We specifically investigate the latest cabinet reshuffle (the working cabinet) by investigating both large-capitalization and liquid shares that are commonly classified into LQ 45 index and small-capitalization shares based on the smallest market capitalization. It is therefore expected that our study add the empirical evidence on market reaction to political events involving size effect.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Corredor et al. (2015), Huang et al. (2015), Massa and Yadav (2015) suggest that market reaction affects the dynamics of share price movement in capital markets. Baker and Wurgler (2006) explain that market sentiment is investors’ tendencies to speculate as indicated by investors’ optimism or pessimism about
future share price movement. He (2014) argues that information that has been evaluated by investors shape market sentiments that will eventually affect share returns. Although the efficient capital market concept has been one of the main references in the development of finance theory, numerous follow-up studies indicate conflicting phenomena that was later known as the market anomaly (Popovic and Durovic, 2014). Some examples of specific market anomalies are size effect (Banz, 1981), neglected firm effect (Arbel and Strebel, 1982), January effect (Keim, 1983), and overreaction (DeBondt and Thaler, 1985). The size effect phenomenon as suggested by Banz (1981) and Reinganum (1981) shows that small-capitalization shares tend to generate higher returns than large-capitalization shares. Ziarko and Gestwicki (2016) explain that small-capitalization shares are associated with higher risks and returns. This implies that higher returns of “compensate” higher risks for investors to invest in these small-capitalization shares (Strada, 2014).

2.1. Market Reaction

Political events affect share price movements in capital markets (Angelovska, 2011; Suleman, 2012; Taimur and Khan, 2015). Political stability increases investment opportunities because investors feel safe to invest their funds (Manzoor, 2013). On the other hand, Mahmood (2014) stresses that political instability will reduce investment opportunities because it implies higher risks that investors must bear. Given the importance of political stability for the capital markets, governments issue a series of policies and regulations to ensure political stability. Similarly, governments may reshuffle their cabinets to ensure political stability and to restore market confidence and optimism. In the case of Indonesia, the latest cabinet reshuffle is a government’s response to weakening capital market condition since April 2015. Understandably, the Indonesian government expected that the reshuffle would act as a positive market sentiment because they claimed that the incoming ministers were better and more capable in solving existing problems. Furthermore, the government also expected that the reshuffle met public expectation and lifted share prices in general and improved the capital market performance. Based on the previous discussion we propose the following hypothesis:

\[ H_1: \text{The LQ 45 shares exhibit significant abnormal returns around the event of reshuffle of the working cabinet.} \]

Meanwhile, small-capitalization shares exhibit higher risks than large-capitalization shares (McDermott and D’Auria, 2014; Sontakke, 2016). Four factors explain the higher risks of small-capitalization risks, i.e. low liquidity, limited access to financial institutions, weak fundamentals and highly potentials of business failure, and limited information availability. Limited information availability is closely related to information asymmetry in the signaling theory as proposed by Ross (1977). Ferrer (2016) explains that information asymmetry is mainly caused by the fact that firms possess certain information that investors do not.

\[ H_2: \text{Small-capitalization shares exhibit significant abnormal returns around the event of reshuffle of the working cabinet.} \]

2.2. The Different Reactions to the Announcement of the Reshuffle of the Working Cabinet between the LQ 45 Shares and Small-Capitalization Shares

When comparing which firms are more susceptible to political events, Banz (1981) and Reinganum (1981) explain the size effect phenomenon in which small-capitalization shares react more than large-capitalization shares. One of the main causes of this effect is limited information availability among small firms. Lack of access to and availability of information among small-capitalization firms lead investors to neglect small firms and to choose to invest to large firms. However, Arbel and Strebel (1982) argue that small firms that tend to be neglected by investors have potentials to grow. Even, Banz (1981) stresses that small-capitalization shares generate higher returns than large-capitalization shares. Therefore, our study predicts that small-capitalization shares react more to the announcement of the working cabinet reshuffle than the LQ 45 shares as indicated by significantly higher cumulative abnormal return (CAR) of small-capitalization shares than the LQ 45 shares. Accordingly, our last hypothesis is:

\[ H_3: \text{Small-capitalization shares exhibit higher cumulative abnormal returns than the LQ 45 shares as a response of the announcement of the Working cabinet reshuffle.} \]

3. METHODS

Before sample selection, it is necessary to determine the initial sample number. The number of sample firms for each group is 45 firms to balance the number of sample firms in the LQ 45 group. Accordingly, the number of small-capitalization shares is 45 based on the 45 smallest capitalization. Next, we select our sample based on the evaluation period criterion and shares change in 2015 because issuers classified into LQ 45 index and the market capitalization are evaluated in different periods. More specifically, issuers listed in the market capitalization are evaluated every 1 year while issuers in the LQ 45 group are evaluated every semester or twice a year. Of the 45 initial sample, 2 firms were excluded from LQ 45 calculation in the period of February-July 2015 and there are 2 new firms were included in the LQ 45 index in the period of August 2015-January 2016. Therefore, after initial selection, our LQ 45 sample is 43 firms while the small capitalization shares remain 45 firms. In the next stage, we select sample based on the liquidity criterion on small-capitalization shares only to avoid the possibility of illiquid shares (shares not actively traded). By default, all LQ 45 shares are liquid because one of the main criterions of firm selection into this group is trading liquidity. From our initial sample of 45 small-capitalization shares, we find 26 actively traded shares. In the third or last stage, we leave out issuers that engaged in corporate actions during observation periods to avoid the possibility of confounding effect or joint effect. Table 1 informs us about the details of sample selection process and number of sample for each group.

We use secondary data of closing daily share prices, daily Indonesia stock exchange (IDX) composite index, share market frequency data, annual financial statements data, and corporate action date data generated from IDX official website (http://www.idx.co.id),
Table 1: Sample selection process

<table>
<thead>
<tr>
<th>No</th>
<th>Process</th>
<th>LQ 45 shares</th>
<th>Small-capitalization shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Initial sample</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>2.</td>
<td>Stage 1: Shares unlisted in 2015</td>
<td>(2)</td>
<td>(0)</td>
</tr>
<tr>
<td>3.</td>
<td>Stage 2: Shares not actively traded (&quot;sleeping&quot; shares)</td>
<td>(0)</td>
<td>(19)</td>
</tr>
<tr>
<td>4.</td>
<td>Stage 3: Firms with corporate actions during observation periods</td>
<td>(3)</td>
<td>(0)</td>
</tr>
<tr>
<td>5.</td>
<td>Final sample</td>
<td>40</td>
<td>26</td>
</tr>
</tbody>
</table>

Bisnis Indonesia and The Jakarta Post daily newspaper, and Danareksa. Research data are secondary data obtained from various publications issued by financial institutions such as the central Bank of Indonesia (BI) and IDX. The stages of data analysis design and hypothesis testing are determining event period. We use the announcement of the working cabinet reshuffle by President Joko Widodo on Wednesday, August 12 2015 as the event of interest and we use event period of 7 days (t ± 3) to anticipate the possibility of information leakage before the official announcement (for pre event) and to investigate market reaction after the official announcement (for post event). Calculating the abnormal return of each stock based on market model, with steps: First, Calculating actual return \( R_{jt} \). Second, calculating expected return \( R^e_{jt} \) by using estimation period of 60 days. Determining abnormal return \( AR_{jt} \) can be calculated based on actual return \( R_{jt} \) less expected return \( R^e_{jt} \), formulated as follows:

\[
AR_{jt} = R_{jt} - R^e_{jt} \quad (1)
\]

\[
AR_{jt} = R_{jt} - (\alpha + \beta R_m) \quad (2)
\]

\[
AR_{jt} = R_{jt} - \bar{R}_m \quad (3)
\]

Testing the presence of significant abnormal returns surrounding the announcement of the working cabinet reshuffle while we use CARs for event window. We refer to Bochmer et al. (1991) to run the z-test of the event day scenario. More specifically, they generate z-statistic from the following equation:

\[
Z = \frac{ASAR_j}{\sqrt{NS_{ASAR_j}}} \quad (4)
\]

Average standardized abnormal return at period – t is the accumulation of standardized abnormal return of firm – j at period – k as described by the following equation:

\[
ASAR_j = \sum_{k=1}^{N} SAR_{jt} \quad (5)
\]

\[
SAR_{jt} = \frac{AR_{jt}}{S_{AR,jt}} \quad (6)
\]

Meanwhile, \( S_{ASAR_j} \) in the equation 4 is generated from the following equation:

\[
S_{ASAR_j} = \frac{1}{N-1} \sum_{j=1}^{N} \left( SAR_{jt} - \frac{1}{N} \sum_{j=1}^{N} SAR_{jt} \right)^2 \quad (7)
\]

On the other hand, the z-test in the event window scenario where the z-statistic is generated from the equation 8:

\[
Z = \frac{1}{\sqrt{N}} \sum_{j=1}^{N} SCAR_j \quad (8)
\]

In the equation 8 above, standardized cumulative abnormal return of firm – j (\( SCAR_j \)) is generated from the equation 9.

\[
SCAR_j = \frac{CAR_j}{\sqrt{VAR(CAR_j)}} \quad (9)
\]

\( CAR_j \) in the equation 9 is the accumulation of abnormal return of share of firm – j during a period of \( t_1 \) to \( t_\). Meanwhile, \( VAR(CAR_j) \) in equation 9 is the variance of estimated \( CAR_j \) as a product of Equation 10.

\[
VAR(CAR_j) = \frac{\sigma^2}{N_2} + \left( \frac{N_2}{N_1} \right) + \frac{N_2^2}{N_1^2} \sum_{t=1}^{N_1} \left( R_{mt} - \bar{R}_m \right)^2 \quad (10)
\]

The sign test is an additional test of return abnormality during estimation period. This technique tests the difference between positive abnormal return and negative abnormal return during the event period. For large sample \( (n > 25) \) the formula for sign test is the following:

\[
z = \frac{x - \mu}{\sigma}
\]

Where, \( x \) = the number of positive abnormal returns, \( \mu \) = the mean of a binomial probability distribution = \( n.p = n.0.5 \) and \( \sigma \) = the standard deviation of a binomial probability distribution = \( \sqrt{n.p(1-p)} \)

Testing the different reactions to the announcement between the LQ 45 and small-capitalization shares by using the independent sample t-test and Mann–Whitney to test the mean difference. We previously run the variance similarity test using the F-test (Levene’s test).
3.1. Data Analysis

Table 2 shows the descriptive statistics based on the minimum, maximum, mean, and standard deviation values of both share groups.

Table 2 shows that LQ 45 shares offer higher price than small-capitalization shares both in terms the highest price or the lowest price. All in all, our data show that there are significant differences between LQ 45 shares and small-capitalization shares surrounding the announcement date in terms of share price, PER, actual return, and abnormal return. We also analyze the trend of share price, PER, actual return, abnormal return, and average abnormal return (AAR) movement pattern during observation period to sharpen our descriptive analysis. Figure 1 show the AAR movement pattern of LQ 45 and small-capitalization shares.

This Figure 1 show that LQ 45 shares has the highest and lowest AAR at the same period with that of small-capitalization shares. At event period $t_i$, AAR of LQ 45 peaks by 0.6% and for small-capitalization shares 1.9%. Meanwhile, at event period $p$, the AAR of LQ 45 shares and small-capitalization shares are $-0.3\%$ and $1.9\%$, respectively. Tests for the first and second hypothesis aims to detect the Indonesian capital market reaction to the announcement of the Working cabinet reshuffle (Table 3).

Panel A Table 3 shows that cumulative average abnormal return (CAAR) of LQ 45 share in the event window scenario for 2 days (0,1) by using market model, is 0.3% and z-statistics show insignificant results (z-test $= 0.220$). There is no significant difference in abnormal return between LQ 45 shares and small-capitalization shares surrounding the announcement of the Working cabinet reshuffle.

We predict that small-capitalization shares react more to the announcement than LQ 45 shares. Table 4 shows the results of the test of the third hypothesis.

As indicated by Table 4, the Levene’s test shows that the CAR variance between LQ 45 shares and small-capitalization shares can be assumed equal because all f-test is higher than f-table of 3.991 ($f_{market\ model} = 1.803$). Based on that assumption, the result of t-test value is $-0.578$ considered insignificant when compared to the value of t-table of 1.998 ($t_{market\ model} = -0.578$). Table 4 also shows that the results of Mann–Whitney test are consistent with independent sample t-tests as indicated by z-test score of 0.446 (market model method), $-0.367$ (capital asset pricing model [CAPM] method), and $-0.748$ (average method), insignificant at 5% significance level. Therefore we conclude that hypothesis alternative 3 is rejected (there is no significant difference of CAR between LQ 45 shares and small capitalization shares as a response to the announcement of the working cabinet reshuffle).

3.2. Robustness Test

To examine the robustness of our results, we carry out an additional analysis. Given the value of abnormal return sensitive to the result of expected return measurement it will use two other expected return measurements. First, the CAPM approach, where for the calculation of risk free rate using BI-Rate of 7.5% per year. Second, the average return approach using a period of 60 days. The analysis results are shown in Table 4 that the abnormal return for CAPM and Average return is 0.4% and 0.3% respectively with z-test
Table 3: Results of z-test and sign test

<table>
<thead>
<tr>
<th>Event day</th>
<th>Market model</th>
<th>CAPM</th>
<th>Average</th>
<th>Sign test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AAR</td>
<td>z-test</td>
<td>AAR</td>
<td>z-test</td>
</tr>
<tr>
<td>−3</td>
<td>−0.002</td>
<td>−0.345</td>
<td>−0.002</td>
<td>−0.315</td>
</tr>
<tr>
<td>−2</td>
<td>−0.002</td>
<td>−1.196</td>
<td>−0.002</td>
<td>−0.984</td>
</tr>
<tr>
<td>−1</td>
<td>−0.001</td>
<td>−0.439</td>
<td>−0.001</td>
<td>−0.410</td>
</tr>
<tr>
<td>0</td>
<td>−0.003</td>
<td>−0.363</td>
<td>−0.003</td>
<td>−0.345</td>
</tr>
<tr>
<td>1</td>
<td>0.006</td>
<td>0.795</td>
<td>0.006</td>
<td>0.826</td>
</tr>
<tr>
<td>2</td>
<td>−0.002</td>
<td>−1.080</td>
<td>−0.002</td>
<td>−1.000</td>
</tr>
<tr>
<td>3</td>
<td>0.002</td>
<td>0.193</td>
<td>0.002</td>
<td>0.195</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Event window</th>
<th>CAAR</th>
<th>z-test</th>
<th>CAAR</th>
<th>z-test</th>
<th>CAAR</th>
<th>z-test</th>
<th>% positive</th>
<th>z-sign test</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 1</td>
<td>0.003</td>
<td>0.220</td>
<td>0.003</td>
<td>0.231</td>
<td>0.003</td>
<td>0.287</td>
<td>0.550</td>
<td>0.632</td>
</tr>
<tr>
<td>−3 to 1</td>
<td>−0.002</td>
<td>−0.251</td>
<td>−0.002</td>
<td>−0.224</td>
<td>−0.001</td>
<td>−0.085</td>
<td>0.525</td>
<td>0.316</td>
</tr>
</tbody>
</table>

Panel B: Small-capitalization Shares

<table>
<thead>
<tr>
<th>Event day</th>
<th>Market model</th>
<th>CAPM</th>
<th>Average</th>
<th>Sign test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AAR</td>
<td>z-test</td>
<td>AAR</td>
<td>z-test</td>
</tr>
<tr>
<td>−3</td>
<td>−0.015</td>
<td>−0.609</td>
<td>−0.015</td>
<td>−0.607</td>
</tr>
<tr>
<td>−2</td>
<td>0.003</td>
<td>0.124</td>
<td>0.004</td>
<td>0.138</td>
</tr>
<tr>
<td>−1</td>
<td>−0.004</td>
<td>−0.196</td>
<td>−0.004</td>
<td>−0.173</td>
</tr>
<tr>
<td>0</td>
<td>−0.019</td>
<td>−0.761</td>
<td>−0.019</td>
<td>−0.743</td>
</tr>
<tr>
<td>1</td>
<td>0.019</td>
<td>0.303</td>
<td>0.020</td>
<td>0.306</td>
</tr>
<tr>
<td>2</td>
<td>0.002</td>
<td>1.177</td>
<td>0.003</td>
<td>1.271</td>
</tr>
<tr>
<td>3</td>
<td>−0.001</td>
<td>−0.017</td>
<td>0.000</td>
<td>−0.013</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Event window</th>
<th>CAAR</th>
<th>z-test</th>
<th>CAAR</th>
<th>z-test</th>
<th>CAAR</th>
<th>z-test</th>
<th>% positive</th>
<th>z-sign test</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 1</td>
<td>0.000</td>
<td>−0.041</td>
<td>0.001</td>
<td>−0.042</td>
<td>−0.001</td>
<td>−0.062</td>
<td>0.462</td>
<td>−0.392</td>
</tr>
<tr>
<td>−3 to 1</td>
<td>−0.016</td>
<td>−0.257</td>
<td>−0.013</td>
<td>−0.259</td>
<td>−0.019</td>
<td>−0.310</td>
<td>0.346</td>
<td>−1.569</td>
</tr>
</tbody>
</table>

Table 4: Results of independent sample t-test and Mann-Whitney tests

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent sample t-test</th>
<th>Mann-Whitney test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t-test*</td>
<td>t-test* P (2-tailed)*</td>
</tr>
<tr>
<td>Market</td>
<td>1.803</td>
<td>−0.578 0.565</td>
</tr>
<tr>
<td>CAPM</td>
<td>1.458</td>
<td>−0.372 0.711</td>
</tr>
<tr>
<td>Average</td>
<td>1.766</td>
<td>−0.832 0.409</td>
</tr>
</tbody>
</table>

*Significant at 5%. AAR: Average abnormal return, CAAR: Cumulative average abnormal return, CAPM: Capital asset pricing model

*Equal variances assumed. CAPM: Capital asset pricing model

CAPM = 0.353, and z-test average = 0.287. Both of which aim for insignificant results. The same conclusion when the event window is widened (−3.1). Thus the expected measurement result using CAPM and average return support the market model results. While for the test of size effect as shown in Table 4 obtained the result that the value of z-test CAPM = 0.353 and z-test average = 0.789 is not significant. This result is consistent with market model results concluded that there is no abnormal return difference between large capitalized shares and Small around the announcement of a cabinet reshuffle.

4. DISCUSSION

Our empirical tests show that there is no significant difference of abnormal return between LQ 45 shares and small-capitalization shares surrounding the announcement date. Investors have predicted that President Joko Widodo will reshuffle his cabinet. We base our conjecture on Rangel (2011) who argue that there are two effects of macroeconomic announcements, namely unpredicted macroeconomic announcement (surprise effect) and macroeconomic announcement that has previously predicted (announcement effect). Since July 2015, public has anticipated the first reshuffle of the Working cabinet when President Joko Widodo several times held unscheduled performance evaluation of his ministers. Vice-President Jusuf Kalla also signaled that the cabinet would be reshuffled right after Idul Fitri Day. Even the day before announcement day, President Joko Widodo held an unscheduled meeting with some of his ministers. These signals understandably increased investors’ confidence that there would be a cabinet reshuffle in the nearly future and responded to the reshuffle early. As a result, investors did not react to the cabinet reshuffle announcement. As suggested by Kim et al. (2004), investors will react only to unpredictable events (surprise effect) and will not react to predictable effect.

Secondly, the reshuffle was announced when the capital market was in bearish condition that causes the announcement fails to create positive sentiment in the market. The appointment of six new ministers in the cabinet failed to boost share prices in the capital market. There is a possibility that investors still needed more time to evaluate the new ministers’ performance. Lastly, our findings also suggest that there is no significant difference in CAR between LQ 45 shares and small-capitalization shares as a response to the announcement of the cabinet reshuffle. These results do not support our third hypothesis that predicts that small-capitalization shares generate significantly higher abnormal return than LQ 45 shares. The test of our third hypothesis is related to our first and second hypotheses. In our previous tests, we find that neither LQ 45 shares nor small-capitalization shares react to the announcement. We then conclude that we do not find the size effect as suggested by Banz (1981) surrounding the announcement event in the Indonesian capital market.
5. CONCLUDING REMARKS

This research aims to test market reaction to a cabinet reshuffle by introducing the size effect. We fail to show that market reacts to a cabinet reshuffle announcement both for LQ 45 shares and small-capitalization shares. We interpret these results that investors already anticipate the event so that capital market does not react when the event is officially announced. Alternatively, the announcement coincides with the bearish capital market so that it does not fall beyond market expectation and fails to be positive sentiment for market.

When public already access public information that has not been officially announced and capital market is bearish, novice investors can neglect public information (such as a cabinet reshuffle) because such a political event does not affect share return, both for small and large firms. Novice investors should focus on fundamental and performance aspects of firms. This study is subject to some limitations that can be a further research avenue. More specifically, we only study the market reaction to a single cabinet change. This implies that we cannot take possible different presidential decision making styles (e.g. accommodative vs. independent). Additionally, we only focus on a single capital market. It is expected that future studies will address our limitations.

REFERENCES