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INVESTORS TRADING BEHAVIOR AROUND CASH DIVIDEND, STOCK DIVIDEND AND STOCK SPLITS: CASE OF THE STOCK EXCHANGE OF THAILAND (SET)

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ABSTRACT- The purpose of this paper is to examine investor's type trading behavior reaction to cash dividend, stock splits and stock dividend on short term and long term period. On short term study, we investigate on both announcement day and ex-dividend/effect day while on long term we study only announcement month and post announcement month. This research study on data of firms listed on the Stock Exchange of Thailand during January 2000 to July 2011. By employing short term event-study approach, the results show that retail investors are likely to buy cash dividend stock, stock splits and stock dividend. While foreign and institution are majors liquidity provider for retail investors, proprietary investors avoid trading around these three events. For long term event study of cash dividend, we find positive underreact only when retail investors are net buyer. We further analyze on firm size effect and payout ratio effect for all events. The results show significant effect of both analysis occur mostly on short term study while in the long term the effect has more significant result on cash dividend. For cash dividend, we find that market reacts more positively to dividend increase.

I. INTRODUCTION

A. Background and Literature Review

According to efficient market, once firms declare news to the public, there should not be any abnormal returns occur before and after announcement day, and especially for effect days or following months.

Previous studies show positive abnormal trading returns around cash dividend announcement day. (Kalay and Loewenstein (1985), Pettit (1972) and Charest (1978), Al-Yahyaee et al (2011)). Many theories explain that market view cash dividend policy as a good signal from managers. By the way, if cash dividend is informative, market should absorb this news since the announcement day already.

However, many researches show empirical results of abnormal trading behavior around ex-dividend day. (Elton and Gruber (1970), Chen et al (2013)). Tax different between capital gain and cash dividend, tax heterogeneity, of investors are often tested by many research. On the other hand, there are number of evidences against dividend as signaling. (Sabur (2007)

Moving to stock dividend and stock split, by theory, both stock dividend and stock split are likely a cosmetic change on firms' stock price and equity accounting. Although, these two corporate actions do not add real value to firms, various researches report abnormal trading returns and volumes on short-term and long-term time horizon. (Fama, et al (1969) and Mcnichols and Dravid (1990) and Desai and Jain (1997)). Charest (1978) reports abnormal return on stock split and stock dividend on both announcement day and ex-dividend day. Some research explains that corporate managers use financial decision to convey information to investors about future firm performances. (Dhatt, et al (1996, 1997)).

For stock spiting firms, some papers show that their stock price on post earning is higher than non-splitting firms for five years. (Lakonishok and Lev (1987)) Ikenberry et al (1996) observe stock price after split announcement month and find a positive drift in price up to three years. On the other hand, optimal price range suggests that manager use stock split and stock dividend as financial tools to keep stock price into an optimal range. Baker and Gallagher (1980) show that more than 90 percent of chief managers' motives in a survey indicate that stock split make stock price in an optimal range and make it easier for small traders to buy in round lot. More complicated research study whether stock split and stock dividend cause variance change of firms. (Ohlson and Penman (1985), Grinbatt et al. (1984)) In a different point of view, Lakonishok and Lev (1987) examine stock split and stock dividend on monthly US data for long run study. They report some different characteristics between these two samples such as stock price movement on pre and post announcement months, earnings growth and volume of trade. Their empirical results show clearly different purpose between split and stock dividend. By all mean, we can see that there is no consensus finding for all events.

In this study, we examine trading behavior of each investor type on short-term event around corporate announcement day and ex dividend/effect day and long-term event for 11 months following an announcement months. Our study covers on these corporate events: cash dividend, stock dividend and stock split

B. Research Questions

1) How foreign/institutional/broker/retail investors trade around cash/stock dividend and stock split announcement in term of AR and trading value for short-term and long-term?

2) How foreign/institutional/broker/retail investors trade around cash/stock dividend and stock split ex/effect day in term of AR and trading value for short-term and long-term?

C. Research Objectives

1) To investigate investors' trading activities around cash/stock dividend and stock split announcement date and ex/effect date.

2) To examine investors' trading behavior in long run following cash/stock dividend and stock split announcement date.

II. HYPOTHESIS DEVELOPMENT

A. CASH DIVIDEND

Normally, firms with dividend policy may be viewed as a greater operations performance and more transparency than firm with non-dividend policy for two reasons.

First, firms decide to pay cash dividend when there is enough retain earning and managers have a positive prospect of earnings in the future (well known as dividend as signaling by using cash dividend policy). (Elton and Gruber (1970), Eades et al (1994),Miller and Rock (1985)). Second, dividend policy helps shareholder protect misuse of cash for favorable interest of managers. Free cash flow hypothesis suggests that dividend policy may help align interests between managers and shareholders by cutting down cash available for discretion and result in protection against self-interested action of management. (Easterbrook, 1984). As a result, cash dividend announcement should be considered as positive signal to the market.

Recently, Chen et al (2013) studies on Taiwanese stock market with tax heterogeneity data. He finds that tax benefits investors (retail investors) buy cum dividend before ex-dividend day and then reverse to sell ex-dividend stock while tax disadvantage investors (foreign, institutional and proprietary investors) trade oppositely. Furthermore, it is a reasonable to believe that high dividend yield generates more demand from dividend capture traders compare low dividend yield. Lakonishok and Vermaelen (1986) show that ex-dividend return patterns are driven more with larger dividend yields. In addition, many researches show evidences that size of firm and return are related. Atiase (1985) suggest that firm with smaller size may has less available information than larger firm size. Al-Yahyaee et al. (2011) test cash dividend change around announcement day for Oman stocks. Their results show that around announcement date, dividend increase is associated with stock price increase while dividend decrease results in opposite direction. Firm with no change in dividend is slightly decreased in stock price. Therefore, we set four hypotheses for short term cash dividend.

- **Hypothesis 1a: CAR on preannouncement day = 0 while CAR on announcement and post announcement day>0**
- **Hypothesis 1b: On pre and post announcement period, Local investors' imbalance > 0.**
- **Hypothesis 1c: On pre ex-dividend period, retail investors trade imbalance > 0 and < 0 on ex dividend and post ex dividend day while other investors move the opposite direction.**
- **Hypothesis 1d: CAR on pre ex-dividend day > 0 and CAR on ex-dividend post ex-dividend day < 0**
- **Hypothesis 2a: High dividend yield samples have greater magnitude of CAR and investors trade Imbalance than low dividend yield samples around cash dividend announcement day.**
- **Hypothesis 2b: High dividend yield samples have greater magnitude of CAR and investors trade Imbalance than low dividend yield samples around cash ex-dividend day.**
- **Hypothesis 3a: High firm size rank has lower magnitude of CAR and investors trade imbalance than low firm size rank around cash dividend announcement day.**
- **Hypothesis 3b: High firm size rank has lower magnitude of CAR and investors trade Imbalance than low firm size rank around ex-dividend day.**
- **Hypothesis 4: Positive CAR after dividend increase announcement day and negative CAR after dividend decrease announcement day.**

Another point of view is that if market cannot react completely for corporate news in short term or its cause drift in stock price on short run, the effect on price should be stronger in long run. Frazzini (2006) explains "disposition effect" that can generate stock price to underreact to news. While DeBondt and Thaler (1985, 1987) report overreact on stock price that is the lowest returns equities over 2-5 years become outperform market in subsequent period. Thus, we set up the same last three hypotheses for long term cash dividend

- **Hypothesis 5: High dividend yield samples have greater magnitude of CAR and investors trade imbalance than low dividend yield samples follow cash dividend announcement month.**
- **Hypothesis 6: High firm size rank has lower magnitude of CAR and investors trade imbalance than low firm size rank follow cash dividend announcement month.**
- **Hypothesis 7: dividend increase has higher magnitude of CAR and investors trade imbalance than dividend decrease firm follow cash dividend announcement month.**

B. STOCK SPLIT AND STOCK DIVIDEND

Similar to cash dividend, stocks dividend and stocks splits announcement are also viewed as good signaling from managers. (Lakonishok and Lev (1987), Dhatt et al. (1996, 1997)) (There are two famous theories on these corporate actions: Signaling hypothesis and optimal price range hypothesis). The common idea behind a good signaling on stock split announcement and stock dividend announcement are asymmetry information and cost associated with these corporate actions.

In term of firm sizes, Desai and Jain (1997) test long run stock split announcement period by examine portfolio of different size firm and report inverse relationship between size and abnormal returns.

It is obviously that small wealth investors may not afford high stock price range in round lots. Baker and Gallagher (1980) explain that post stock split prices will attract wider market participants to help adjusting stock price to an optimal range Other explanation is that managers use stock splits to adjust financial ratios to normal industry level and attract market to reevaluate their stock price. Dhatt et al. (1996, 1997) stock dividend seems to support optimal price range for Korean stock market While Lakonishok and Lev (1987) argue that stock dividend may be contemporarily substituted for cash dividend on US data.

Accord to trading range hypothesis, Desai and Jain (1997) and Grinbatt et al. (1984) suggest that managers signal information about their future earnings through their split decisions. Furthermore, Brennan and Copeland (1988)

suggest that the more manager's favorable information about the firm, the greater split factor.

McNichols and Dravid (1990) suggest that managers use their private information about the firm to set split factor and thus, investors may inference managers' private information by observed split factor. They also report strongly positive relation between announcement period returns and split factor. Therefore, we set similar three short run hypotheses and similar three long run hypotheses for each of stock split and stock dividend. The first three short run hypotheses are short term event study on normal event study around announcement/ex-dividend day, firm size effect and split ratio/stock dividend payout ratio. The next three long run hypotheses are test on underreact/overreact after an announcement which base on previous three short run hypotheses.

- **Hypothesis 8a: CAR on announcement and post announcement day > 0 .**
- **Hypothesis 8b: On effect day and post effect day, retail investors are net buyer.**
- **Hypothesis 8c: On effect day and post effect day, CAR > 0.**
- **Hypothesis 9a: High firm size rank has greater magnitude of CAR and investors trade Imbalance than low firm size rank around split announcement day.**
- **Hypothesis 9b: High firm size rank has greater magnitude of CAR and investors trade imbalance than low firm size rank around effect day.**
- **Hypothesis 10a: High split factor samples have greater magnitude of CAR and investors trade imbalance than low split factor sample around split announcement day.**
- **Hypothesis 10b: High split factor sample has greater magnitude of CAR and investors trade imbalance than low split factor sample around ex dividend day.**
- **Hypothesis 11: CAR of 11 months following split announcement month > 0.**
- **Hypothesis 12: High firm size rank has lower magnitude of CAR and investors trade Imbalance than low firm size rank follow split announcement month.**
- **Hypothesis 13: High stock split factor firms have higher magnitude of CAR and investors trade Imbalance than low stock split factor firm follow split announcement month.**
- **Hypothesis14a: CAR on announcement and post announcement day > 0**
- **Hypothesis 14b: On ex-dividend day and post ex-dividend day, CAR > 0.**
- **Hypothesis 15a: High firm size rank has greater magnitude of CAR and investors trade Imbalance than low firm size rank around stock dividend announcement day.**
- **Hypothesis 15b: High firm size rank has greater magnitude of CAR and investors trade Imbalance than low firm size rank around ex-dividend day.**
- **Hypothesis 16a: High stock dividend payout ratio sample has greater magnitude of CAR and investors trade imbalance than low stock dividend payout ratio sample around announcement day.**
- **Hypothesis 16b: High stock dividend payout ratio sample has greater magnitude of CAR and investors trade imbalance than low stock dividend payout ratio sample around ex-dividend day.**
- **Hypothesis 17: CAR of 11 months following stock dividend announcement month > 0.**
- **Hypothesis 18: High firm size rank has lower magnitude of CAR and investors trade imbalance than low firm size rank follow stock dividend announcement month.**
- **Hypothesis 19: High stock dividend factor firms have higher magnitude of CAR and investors trade imbalance than low stock dividend factor firms follow stock dividend announcement month.**

III. DATA AND METHODOLOGY

A. Data Source

We obtain daily investors' trading type from cumulative intraday data from SET that cover January 1999 and June 2012 period. This file has all trade data of each invertor's type. All corporate news is drawn from rights and benefits and par change file from SET during 1975-2013 periods. Basic data such as security name, announcement/ex-dividend/effect day, cash dividend amount, split/payout ratio etc., are already in these files. Due to 1 year before and 11 months after announcement month of trade data is required for long run study, all final data for short term and long run test of each news will cover only January 2000 to July 2011 periods (12 months before an announcement month data for calculate trade imbalance and 11 months following an announcement month for long run event study).

For cash dividend, we collect only XD data for cash dividend for common stocks cover with trading data period. Observations are excluded if others corporate important news associated within study periods. If the sample has par value change, we adjust dividend amount by par change ratio for all sample with whole study period. The final cash dividend samples consist of 2,520 events (415 listed firms).

For stock split, we select only stock split data from par change file and then follow cash dividend sample selection steps. The final stock split data 163 events (149 listed firms).

In case of stock dividend, we first collect stock dividend raw data and find that more than 50% of observations are associated with others news. Most of coincide news are cash dividend. If we exclude contaminate data, the final stock dividend observations will be less than 20 and will be insufficient for the tests. Finally, we keep all observations. The final stock dividend data comprise of 86 (54 listed firms). More detail on sample selection in sample selection table in appendix A.

Daily and Monthly transaction data are obtained from daily and monthly security trading files from SET. These two files report identity of security, opening price, close price, volume and value of trade and Set index. Fortunately, both files already provide par adjust factor on each securities daily trade and monthly trade. We then adjust close price by adjust factor for stock split and stock dividend. We adjust close price on ex-dividend for both cash dividend and stock

dividend and stock split on an effect day. We exclude all missing events that have number of trading day within event windows less than 7 day. We exclude those in monthly data where the number of trading month is less than 12. Consequently, short-term and long-term data are full with all investors' trade data.

B. Methodology

1) Short-term Event study

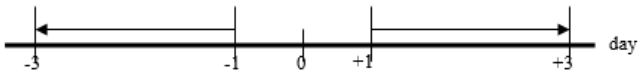

Figure 4.1: Short term event window

Our short term event window have 7 day windows, (-3,+3), where (-3,-1) days are preannouncement/ex-dividend day period which use for capture short term trading behavior and (+1,+3) days are post announcement/ex-dividend periods which use for examine investors trading behavior. Event day (0) is an announcement/ex-dividend day. Daily return is calculate as follow.

$$R_{it} = \left[\frac{C_{it} - C_{i,t-1} + D_{i,t}}{C_{it}} \right] \times 100 \qquad (1)$$

Where R_{it} is the daily return of stock i on day t.

C_{it} is the close price of stock i at the end of day t.

$C_{i,t-1}$ is the close price of stock i at the end of day t-1.

D_{it} is the dividend paid of stock i day t (on ex-dividend day only).

In case of stock dividend, C_{it} is the adjusted close price by dividend payout ratio on ex-dividend day. For stock split case, C_{it} is the adjusted close price by split factor on effect day and D_{it} is zero.

To calculate daily abnormal return, we use market adjust return as previous studies. (Brown and Warner, (1985)). We calculate daily SET index return by take the different between index close on day t-1 and index close on day t as follow.

$$AR_{it} = R_{it} - R_{mt} \qquad (2)$$

Where AR_{it} is the abnormal return of stock i on day t

R_{it} is the return of stock i on day t

R_{mt} is the return of SET index on day t

We also calculate cumulative abnormal return (CAR) across firms for each day by:

$$CAR_{t1,t2} = \sum_{t1}^{t2} AR_{it} \qquad (3)$$

Where $CAR_{t1, t2}$ is the cumulative abnormal return for each firm between day *t1* and day *t2* period.

We follow Kaniel et al (2008) to calculate trading imbalance. Trading imbalance is calculated by subtract selling baht value from buying baht value and divided by an average one year of total buying and selling baht value on each security and investors type. The imbalance equation is as follow:

$$Timb^{t}_{i,j} = \frac{DBUY^{t}_{i,j} - DSELL^{t}_{i,j}}{ADVAL^{t}_{i,j}} \qquad (4)$$

where $Timb^{t}_{i,j}$ is trading imbalance on stock *i* at day *t* by investor group *j*.

$DBUY^{t}_{i,j}$ is a daily buy baht value on stock *i* at day *t* by investor group *j*.

$DBUY^{t}_{i,j}$ is a daily sell baht value on stock *i* at day *t* by investor group *j*.

$ADVAL^{t}_{i}$ is stock's average daily baht value on stock *i* (calculated from previous 245 trading days) on year *t*.

4.2.2 Long-term Event study

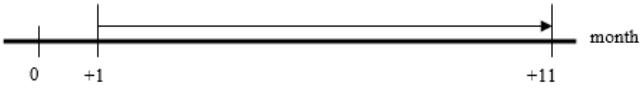

Figure 4.2: Long term event window

Our Long term event window have 12 months windows, (0,+11), where month (0) is announcement month and (+1,+11) month are post announcement month periods that is used for tests underreact/overreact hypothesis. The percentage of monthly stock return and monthly abnormal return are calculated as follow:

$$MR_{it} = \left[\frac{MC_{it} - MC_{it-1}}{MC_{it}} \right] \times 100 \qquad (5)$$

where MR_{it} is the monthly return of stock i on month t.

MC_{it} is the close price of stock i at the end of month t.

$MC_{i,t-1}$ is the close price of stock i at the end of month t-1.

$$MAR_{it} = MR_{it} - MR_{st} \qquad (6)$$

where MAR_{it} is the abnormal return of stock *i* on month *t*

MR_{it} is the return of stock *i* on month *t*

MR_{st} is the return of Set index on month *t*

We also calculate monthly cumulative abnormal return (MCAR) across firms for each month by:

$$MCAR_{t1,t2} = \sum_{t1}^{t2} MAR_{it} \qquad (7)$$

Where $MCAR_{t1, t2}$ is the cumulative abnormal return for each firm between month *t1* and month *t2* period. We choose 11 months after announcement months in this study.

Likely to daily trade imbalance, monthly trading imbalance is calculated by subtract monthly selling baht value from monthly buying baht value and divided by average total monthly buying and selling baht value on each security and investors type. The monthly imbalance equation is as follow:

$$MTimb^{t}_{i,j} = \frac{MBUY^{t}_{i,j} - MSELL^{t}_{i,j}}{AMVAL^{t}_{i,j}} \qquad (8)$$

where $MTimb^{t}_{i,j}$ is trading imbalance on stock *i* at month *t* by investor group *j*.

$MBUY^{t}_{i,j}$ is monthly buy baht value on stock *i* at month *t* by investor group *j*.

$MBUY^{t}_{i,j}$ is monthly sell baht value on stock *i* at month *t* by investor group *j*.

$AMVAL^{t}_{i}$ is stock's average month baht value on stock *i* (calculated from previous 12 trading months) for a year *t*.

IV. EMPIRICAL RESULTS

This section shows all empirical results from our hypotheses. The results shows short-term (-3,+3) event study and long term(0,+11) event study for cash dividend, stock split and stock dividend respectively.

A. Cash dividend: short-term event (-3,3)

Table 4.1.1 panel A shows results that strongly support hypothesis H1a and H1b. On overall result, market reacts to cash dividend announcement as a good signal since CAR is positive and significant at 1% on and after announcement day. Among all investor types, it is clear that retail investor is a net buyer with positive and significant of trading imbalance at 1% around announcement period. We can see that retail investors trade oppositely to foreign and institutional investors in overall period. Most of proprietary traders trading imbalance are low and insignificant along the study periods. This trader seems dislike to trade around an abnormal event. Our result is consistent with Kalay and Loewenstein (1985) who report positive abnormal return during dividend announcement which excess returns occur for up to four days after the announcement day.

Table4.1.1 panel B shows result that supports half of our H1c and H1d. As we expect that tax benefits induce different trading behavior As in hypothesis development section, retails investors are more pronounce as dividend capture traders or tax benefits investors while other investors, especially for foreign investors and institutional investors, are tax disadvantage. Retails investors and foreign investors trading are following tax different trading behavior. Our result is similar to Chen et al (2013). Tax benefits investors will buy cum dividend shares and reversely sell stock on and post ex-dividend day while tax disadvantage investors are trade in the opposite direction. For proprietary traders, their trade behaviors show that they avoid an abnormal event with very low trade imbalance in all period.

1. Cash dividend: short-term event (-3,3) and yield effect

From table 4.1.2 panel A, we can see clearly that high dividend yield samples have more CAR and trading imbalance activities with significant level than low dividend yield rank groups. All the results show that retails trade more positively as dividend yield increases while foreign investors trade oppositely. Panel C result supports H2a with significant of the difference results between highest and lowest dividend yield rank around announcement day. CAR differences are significant at 1% level for all period. The CAR differences increase from 1.1769% on preannouncement to 3.0352% on post announcement period. Retails investors trade imbalance differences increase in the same direction as CAR differences with significant level between 1% and 5% level. While foreign investors trade differences are in the opposite direction to retail investors on all periods. All of institutional and proprietary investors' trade differences are low and insignificant.

Table 4.1.2 Panel B reports results that support our H2b. Overall results, CAR and trading activities of retails, foreign and other investors increase with dividend yield level. Our results are consistent with the idea of high dividend yield induces more trade activities (Lakonishok and Vermaelen (1986), Karpoff and Walkling (1988), Bajaj and Anand (1995)). Panel D result support H2b with significant of the difference CAR results between lowest and highest dividend yield rank on all study period. CAR differences are significant between 5% and 1% level on all period. All investors' trade imbalance differences are not significant compare to those in announcement period. These imply that dividend yield effects mostly on announcement period. Investors trading behaviors of table 5.1.2 Panel A and Panel B are likely a tax heterogeneity trading explained by Chen et al (2013) in table 5.1.1 results. Retails investors (tax benefit investors) seem like dividend capture traders in high yield rank. They buy cum dividend stock and reversely sell on and after ex-dividend day. While foreign investors (tax disadvantage investors) sell cum dividend shares and reversely buy back on and after ex-dividend day. These two investors have more trading activities at the highest yield rank group. We can see that institutional investors and proprietary traders' trades are clearly avoiding dividend event on both announcement day and ex-dividend day.

2. Cash dividend: short-term event (-3,3) and firm size effect

Table 4.1.3 Panel A shows results of CAR and investor's type trading imbalance around announcement day ranked by firm size. We can see that the magnitude of CAR and trading activities increase as firm sizes decrease. Overall result in Panel A shows that most of investors trade significantly in between low to medium firm size rank. CAR is significant have greater magnitude as firm size decrease. Panel C result support our H3a with significant of the CAR and investors trade imbalance differences between lowest and highest firm size rank on announcement day. Retail investors prefer low firm size than high firm size on announcement and post announcement.

Table 4.1.3 Panel B shows results of CAR and investors' type trading imbalance around ex-dividend day ranked by firm size. The result is similar to table 5.1.3 Panel A. We can see that the magnitude of CAR and investors trade imbalance increase as firm size decrease. Overall results, CAR magnitudes and trading activities increase as firm size decrease, especially between the lowest and medium firm size rank. Our results are consistent with the idea of low firm size is more informative than high firm size rank (Atiase, 1985). Panel D result support H3b with significant of the difference CAR and investors trade Imbalance of investors results between lowest and highest firm size rank for all period. The results show low firm size effect on CAR and investors trade on ex-dividend day and post ex-dividend day.

B. Cash dividend: short-term event (-3,3) of dividend change

From Panel A – C, we can see that CAR and investors' trade imbalance magnitudes increase in the direction of dividend change. All CAR results around announcement day are positive. In case of dividend decrease, CAR is not negative as our expectation while its magnitude is the lowest compare to other cases. Retail investors buy in all cases. These results imply that local investors prefer cash dividend even its decrease. We can interpret that the change in cash dividend cause retails investors difference in buying stock price around announcement period and results in significant differences of CAR between dividend increase and dividend

decrease case. Panel G shows results that strongly support our H4. Our results has the same direction as Al-Yahyaee et al. (2011) that dividend increase has the most positive react then dividend unchanged and dividend decrease around dividend announcement respectively.

1. Cash dividend: long-term event (0,+11) and yield effect

From table 4.2.1, we can see that retails investors like cash dividend than others investors. They are net buyer on announcement month at 5% and 10% for low yield rank to high yield rank. On post announcement month, they buy in all case at significant 1%. In trading view, on announcement month retails investors chasing dividend activities increase from -0.0080 with no significant to 0.1065 at significant 1% as yield increase from 1.50% to 9.08%. This implies that retail investors' trades cause underreacts on high yield stock. For foreign and institutional investors, it is clear that they avoid cash dividend. They are almost net seller in all dividend yield ranks. Both of them may cause negative underreact on low dividend yield rank. For proprietary investors, there are significant sell at low and high yield rank on post announcement month. By the way, this long-term event shows that proprietary traders probably avoid cash dividend stock like in case of short-term event.

Table 4.2.1 panel B confirms our H5 that there is a different between high and low yield stock. On announcement month, the CAR difference between high dividend yield rank and low dividend yield rank is 6.0187% with significant at 1% level. Retail investors trade more positive for high dividend yield rank at 1% level while foreign investors' also trade negatively at significant 1% level. On post announcement month, CAR differences increase to 13.7300% at 1% significant level without significant trade of any investors. However, all investors' trade differences sign are still the same as in the announcement month. In both cases, proprietary traders' trade differences are less than other investors. From the results, this means that market, retail investors and others; react differently to different yield stock on short and long periods.

2. Cash dividend: long-term event (0,+11) and firm size effect

Table 4.2.2 Panel A shows CAR and trading imbalance of each investor's type on and follow announcement month rank by firm size. Overall, the result shows that retail investors buying more as firm size decrease, especially from medium to the lowest size rank. The CAR and retail investors' trade imbalance have the same trade sign on both announcement month and post announcement month for two lowest firm size ranks. On the medium firm size rank, CAR is negative and significant on post announcement month with the same trade sign of all investors like two lower size ranks. These imply that market reacts differently to difference firm sizes on long-term period and retail investors cause this underreacts on low firm size. Foreign investors provide liquidity for on low to medium size rank while institutional investors are net seller in lowest to low and high firm size. They both seem to have more effect on CAR as firm size increase. From all trading signs, retail investors trade oppositely to foreign and institutional investors in all case. Proprietary investors trade negatively and significant between 10 and 5%% on lowest firm size rank. Their trade is lower than others investors.

Table 4.2.2 panel B confirms our H6 that there is a CAR and investors trade Imbalance difference between low and high firm size. On announcement month, CAR difference is positive and significant at 1% level with positive trade imbalance of retail investors at 1% significant level. Foreign and institutional investors' trade difference is negative at 1% and 5% level. On post announcement month, the difference of CAR is greater to 6.1951%. Investors' trade imbalance differences show that retail investors' trade significantly increases and opposite to others investors at 1% significant level. Other investors provide liquidity at 1% and 5%. Our results consistent with previous researches (Atiase (1985), Bajaj and Anand (1995), Bernard and Thomas (1989) and Fama (1998)) that low firm size rank result has more impact than high firm size rank.

C. Cash dividend: long-term event (0,+11) and dividend change

Our results in Panel A consistent in part of Charest (1978) who find positive excess return follow dividend increase except that negative excess return follow on decrease month. Panel D results support our H7. The results show that CAR differences between dividend increase and dividend decrease are significant at 1% level on both periods. All investors' trade difference is insignificant at all. There is no clear trade pattern difference in long-term

1. Stock Split: short-term event (-3,3)

Table 4.3.1 Panel A result supports our H8a on announcement day and post announcement day. Even though CAR on preannouncement period is positive with 2.4126% at 1 % significant level, trading imbalance show unclear whether retails, institutional and proprietary investors cause this effect because of insignificant for all trade imbalances. Institutional and proprietary trade result show low trading activities around stock split announcement day. Our results are consistent with Grinbatt et al. (1984), Fama et al. (1969), Mcnichols and Dravid (1990) and Charest(1978)who find positive abnormal returns around stock split announcement day.

Table 4.3.1 Panel B result rejects our H10b on effect day and rejects our H10c. This result contrasts our expectation that small wealth investors cannot effort high stock price while retail investors rather chase split stock before and after they split. (Lakonishok and Lev (1987), Lakonishok and Lev (1987), Lamoureux and Poon (1987))

2. Stock Split: short-term event (-3,3) and firm size effect

We can see that stock split trading imbalance occur the most on the lowest size rank while medium and big size rank are rarely insignificant at all. Panel D confirms our H9b on event day only with significant at 1% level. This result is consistent the idea that low firm size is more informative than high firm size rank and its effect for stock split case the most around announcement day. (Atiase, (1985), Lakonishok and Vermaelen (1990), and Bajaj and Vijh (1990))

3. Stock Split: short-term event (-3,3) and split factor effect

Table 4.3.3 Panel A shows result that supports our H10a for CAR difference. CAR of high split factor rank is greater and more significant than low and medium on event day and post event day. Overall trade sign results, retail investors are almost net buyer around event window while foreign and institutional traders provide liquidity.

Table 4.3.3 panel B result shows thinner investors' trade imbalance than announcement period for all split factors rank. CAR has most size and significant on high split factor rank. Overall results are unclear on how each investor trade on split factor. By the way, retail and foreign investors seem to trade more as stock split factor increase. Panel D result is not support our H10b. These results may be from our low and far difference in number of observations unlike the previous findings between split factor effect and abnormal returns. (Brennan and Copeland (1988), McNichols and Dravid (1990))

D. Stock Split: long-term event (0,+11)

Table 4.4.1 result shows significant trade on an announcement month and rejects our H11. CAR on announcement month is 8.2016% at 1% significant level. Retails investors buy 0.1141 at significant 1% level while foreign trade -0.0909 at significant 5% level. On post announcement month**,** there are no significant on CAR while retail investors' trade imbalance is positive 0.2542 at 10% significant level. Our results contrast to many previous findings who find positive abnormal return and wider market participant after splitting. (McNichols and Dravid (1990))

1. Stock Split: long-term event (0,+11) and firm size effect

Panel B in Table 4.4.2 shows results that rejects our H12 on both announcement month and post announcement month. We do not find firm size effect for stock split in the long run.

2. Stock Split: long-term event (0,+11) and split factor effect

From panel A in table 4.4.3, we can see that there is no clear trade pattern of each investor. Our result in Panel B rejects our H13 on both announcement month and on post announcement month. These results are similar to our short-term findings in table 4.3.3.

3. Stock dividend: short-term event (-3,+3)

Table 4.5.1 Panel A result supports our H14a on announcement day. CAR is positive and significant level with significantly trade retail trade imbalance around announcement day. Our result is similar to Dhatt et al. (1997) who find positive stock price return on preannouncement an on announcement of stock dividend.

Table 4.5.1 Panel B result support our H14b on event day while reject our H14b on post event period. Our results are consistent with Woolridge (1983), Dhatt et al. (1996, 1997) who shows positive abnormal return of stock dividend around ex-dividend day.

4. Stock dividend: short-term event (-3,+3) and firm size effect

Table 4.5.2 Panel A show results that is quite difference to the result of short-term event of stock splits rank by firm size in table 4.3.2 Panel A. The results show that stock dividend in medium and high firm size rank also attract more trade activities than low firm size and result in more significant CAR. By the way, Panel C results do not support our H15a in any period. This may be results from our low samples of stock dividend.

From table 4.5.2 Panel B, overall results show that retail investors are likely to chasing stock dividend from an announcement day until pre ex-dividend day period with liquidity provided by foreign investors. Interestingly, CAR on medium firm size rank has is the most size and significant level than other periods. These results are not consisted to our previous results rank by firm size table 4.1.3 Panel B. In this case, medium firm size has more CAR and investors trade Imbalance than others ranks. However, Panel D result rejects our 15b. The results show that stock dividend on post announcement day is not effect by firm size. The difference of CAR on preannouncement day is unreliable and we do not mark it because table 4.5.2 Panel A has no significant level on preannouncement period at all. Only pre ex-dividend day has CAR difference at 10% significant level.

5. Stock dividend: short-term event (-3,+3) and payout ratio effect

From table 4.5.3 Panel A, we can see that CAR and investors trade imbalance increase in size and significant level as stock dividend factor increase. Panel C result supports our H16a. (Foster and Vickery (1978), McNichols and Dravid (1990)) High stock dividend payout ratio has more CAR than low payout factor on preannouncement and announcement day. In terms of trade imbalance, retail investors buy more on high stock dividend factor on announcement day Foreign and institutional investors also provide more liquidity as stock dividend factor increase.

From table 4.3.3 Panel B, overall, most of trade activities occur on high payout factor. CAR also increases as split factor increase. By the way, Panel D results support our H16b on trade imbalance differences only. Our results are not consistent with previous researches. (Foster and Vickery (1978), Woolridge (1983), Grinbatt et al (1984) and McNichols and Dravid (1990)) We do not find higher abnormal return for larger stock dividend around ex-dividend period. The results show different trade imbalance of retail, foreign and institutional investors as payout ratio increase. Retail investors trade more positive in high payout ratio while foreign and institutional investors trade in the opposite direction.

E. Stock dividend: long-term event (0,+11)

Table 4.6.1 shows result that rejects our H17. Most of significant results occur in an announcement month. On post announcement period, CAR reverses dramatically to negative and insignificant. Only retails investors keep buying and proprietary traders selling are significant. Other investors' trade imbalances decrease and insignificant.

1. Stock dividend: long-term event (0,+11) and firm size effect

As show in table 4.6.2, we can see that retail investors like to buy stock dividend in announcement month. Most of CARs in an announcement month are drive by retail investors. Even though there is a significant different on

announcement month of CAR, we do not mark it because table 4.6.2 Panel A has no significant level on announcement month at all, thus Panel B do not confirms our 180. There is no difference between firm sizes in long-term on both announcement month and post announcement month. We do not find firm size effect for stock dividend in the long run.

2. *Stock dividend: long-term event (0,+11) and payout ratio effect*

Overall results in table 4.6.3 show that CAR and trade activities increase as payout ratio increase. Our results are consistent with previous findings (McNichols and Dravid (1990) Foster and Vickery (1978), Woolridge (1983) and Grinbatt et al (1984)) that the more valuable information the more payout ratio. Panel B shows results of differences of CAR and investors trade Imbalance between high payout factor group and low payout factor group. The results support our H19 on announcement month only. On post announcement month, all differences are lower and insignificant.

Table4.1.1 Percentage cumulative abnormal returns and investors trade imbalance of cash dividend event

Panel A: Cash Announcement day event

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	2520	0.3704	0.1194	-0.0830	-0.0310	-0.0053
		(<.0001)***	(0.0001)***	(0.0095)***	(0.0812)*	(0.0925)*
Event day (0)	2520	0.6870	0.0928	-0.0693	-0.0323	0.0087
		(<.0001)***	(0.0003)***	(0.0012)***	(0.0211)**	(0.3058)
(+1,+3)	2520	0.5905	0.1246	-0.0948	-0.0311	0.0013
		(<.0001)***	(0.0072)***	(0.0242)**	(0.3111)	(0.7782)

Panel B: Cash Ex-dividend day event

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	2520	0.4052	0.1746	-0.1596	-0.0132	-0.0018
		(<.0001)***	(0.0062)***	(0.0105)**	(0.5429)	(0.6871)
Event day (0)	2520	0.5360	-0.0532	0.0400	0.0142	-0.0010
		(<.0001)***	(<.0001)***	(0.0012)***	(0.0565)*	(0.4099)
(+1,+3)	2520	-0.6102	-0.0327	0.0576	-0.0242	-0.0007
		(<.0001)***	(0.2215)	(0.0289)**	(0.1224)	(0.8292)

This table shows the percentage cumulative abnormal returns (CAR) and trading imbalance of all investor types. There are four investors types 1) retails investors 2) foreign investors 3) institution investors 4) proprietary investors. The calculations are divided into three study periods: pre-event day (day -3,-1), event day (day 0) and post-event day (day +1,+3). Both of announcement day and ex-dividend day are denoted as event day (0). For each study period, the first row number shows the CAR and trading imbalance of each investor. The number in parentheses in the same row shows test statistic (p-value). *, ** and *** which denotes statistical significant at the 10%, 5% and 1% level respectively.

Table4.1.2 Percentage cumulative abnormal returns and investors trade imbalance rank by dividend yield

Panel A: Cash Dividend Announcement day event rank by dividend yield

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	YIELD	Min	Max
(-3,-1)	504	0.0037 (0.982)	-0.0135 (0.8036)	0.0325 (0.4522)	-0.0146 (0.711)	-0.0044 (0.6652)	1.50	0.304	2.18
Event day (0)	504	0.2644 (0.0594)*	-0.0789 (0.1294)	0.0521 (0.0687)*	-0.0144 (0.6177)	0.0411 (0.3186)	1.50	0.304	2.18
(+1,+3)	504	-0.3170 (0.0621)*	-0.0808 (0.1836)	0.0627 (0.3021)	0.0169 (0.6452)	0.0012 (0.8452)	1.50	0.304	2.18
(-3,-1)	503	0.0244 (0.8685)	0.2306 (0.0409)**	-0.1711 (0.1295)	-0.0559 (0.1371)	-0.0036 (0.3139)	2.76	2.19	3.29
Event day (0)	503	0.136 (0.2584)	0.1045 (0.0002)***	-0.0573 (0.051)*	-0.0451 (0.0087)***	-0.0022 (0.2804)	2.76	2.19	3.29
(+1,+3)	503	-0.0477 (0.7617)	0.1204 (0.0776)*	-0.0423 (0.6183)	-0.0705 (0.088)*	-0.0076 (0.0808)*	2.76	2.19	3.29
(-3,-1)	506	0.0546 (0.7237)	0.1262 (0.0027)***	-0.0676 (0.0993)*	-0.0596 (0.0359)**	0.0009 (0.7793)	3.89	3.30	4.63
Event day (0)	506	0.3958 (0.0019)***	0.1599 (0.0265)**	-0.1367 (0.0581)*	-0.0256 (0.3351)	0.0024 (0.3082)	3.89	3.30	4.63
(+1,+3)	506	0.1261 (0.5225)	-0.0431 (0.7294)	0.0296 (0.7079)	0.0047 (0.9663)	0.0087 (0.1661)	3.89	3.30	4.63
(-3,-1)	503	0.5894 (0.001)***	0.0565 (0.2424)	-0.0179 (0.802)	-0.0357 (0.5583)	-0.0029 (0.5427)	5.52	4.64	6.56
Event day (0)	503	0.6165 (<.0001)***	0.1042 (0.0783)*	-0.0486 (0.245)	-0.0594 (0.1763)	0.0038 (0.6997)	5.52	4.64	6.56
(+1,+3)	503	0.4731 (0.0299)**	0.3620 (0.0049)***	-0.3021 (0.0176)**	-0.0604 (0.3743)	0.0004 (0.94)	5.52	4.64	6.56
(-3,-1)	504	1.1806 (<.0001)***	0.1970 (0.003)***	-0.1908 (0.0039)***	0.0103 (0.6826)	-0.0165 (0.0887)*	9.08	6.56	46.90
Event day (0)	504	2.0222 (<.0001)***	0.1735 (0.0068)***	-0.1538 (0.0023)***	-0.0181 (0.6101)	-0.0016 (0.4684)	9.08	6.56	46.90
(+1,+3)	504	2.7182 (<.0001)***	0.2668 (0.0203)**	-0.2234 (0.0336)**	-0.0471 (0.4059)	0.0037 (0.8569)	9.08	6.56	46.90

Panel B: Cash Dividend ex-dividend day event rank by dividend yield

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	YIELD	Min	Max
(-3,-1)	504	0.2491 (0.09)*	-0.0109 (0.8489)	-0.0479 (0.4171)	0.0676 (0.2077)	-0.0088 (0.2591)	1.50	0.304	2.18
Event day (0)	504	0.4413 (<.0001)***	-0.0493 (0.0883)*	0.0252 (0.3814)	0.0240 (0.1654)	0.0000 (0.9892)	1.50	0.304	2.18
(+1,+3)	504	-0.3095	-0.0409	0.0336	0.0029	0.0045	1.50	0.304	2.18

		(0.0648)*	(0.6122)	(0.667)	(0.9253)	(0.2295)			
(-3,-1)	503	0.3977 (0.0089)***	0.2319 (0.1325)	-0.1911 (0.1958)	-0.0468 (0.2137)	0.0060 (0.247)	2.76	2.19	3.29
Event day (0)	503	0.7660 (<.0001)***	-0.0291 (0.3023)	0.0172 (0.5581)	0.0158 (0.2277)	-0.0039 (0.0657)*	2.76	2.19	3.29
(+1,+3)	503	-0.3080 (0.111)	0.0480 (0.4835)	0.0168 (0.8212)	-0.0625 (0.1365)	-0.0023 (0.5762)	2.76	2.19	3.29
(-3,-1)	506	0.1965 (0.2308)	0.2991 (0.213)	-0.2205 (0.3549)	-0.0755 (0.1964)	-0.0031 (0.7979)	3.89	3.30	4.63
Event day (0)	506	0.5800 (<.0001)***	-0.0427 (0.0452)**	0.0405 (0.0143)**	0.0038 (0.7964)	-0.0016 (0.7307)	3.89	3.30	4.63
(+1,+3)	506	-0.2976 (0.094)*	0.0083 (0.8602)	0.0183 (0.668)	-0.0297 (0.4095)	0.0031 (0.5658)	3.89	3.30	4.63
(-3,-1)	503	0.4148 (0.0103)**	0.1925 (0.0381)**	-0.1791 (0.0415)**	-0.0070 (0.8933)	-0.0065 (0.6867)	5.52	4.64	6.56
Event day (0)	503	0.8235 (<.0001)***	-0.0531 (0.0761)*	0.0463 (0.0924)*	0.0089 (0.5185)	-0.0021 (0.1388)	5.52	4.64	6.56
(+1,+3)	503	-0.9871 (<.0001)***	-0.0981 (0.0431)**	0.1210 (0.0146)**	-0.0216 (0.5758)	-0.0013 (0.6122)	5.52	4.64	6.56
(-3,-1)	504	0.7688 (<.0001)***	0.1591 (0.08)*	-0.1586 (0.0645)*	-0.0036 (0.922)	0.0031 (0.5632)	9.08	6.56	46.90
Event day (0)	504	0.0699 (0.662)	-0.0913 (0.0013)***	0.0709 (0.033)**	0.0179 (0.418)	0.0024 (0.2633)	9.08	6.56	46.90
(+1,+3)	504	-1.1500 (<.0001)***	-0.0829 (0.0563)*	0.1004 (0.0052)***	-0.0099 (0.7007)	-0.0076 (0.5974)	9.08	6.56	46.90

Panel C: Compare Cash Dividend Announcement day event rank by dividend yield

Event Window	Yield rank	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low yield	0.0037	-0.0135	0.0325	-0.0146	-0.0044
	High Yield	1.1806	0.1970	-0.1908	0.0103	-0.0165
	Low - High	-1.1769	-0.2105	0.2234	-0.0250	0.0121
	P-value	<.0001***	0.0136**	0.0045***	0.5961	0.3922
Event day (0)	Low yield	0.2644	-0.0789	0.0521	-0.0144	0.0411
	High Yield	2.0222	0.1735	-0.1538	-0.0181	-0.0016
	Low - High	-1.7578	-0.2524	0.2059	0.0038	0.0427
	P-value	<.0001***	0.0022**	0.0004***	0.9343	0.3021
(+1,+3)	Low yield	-0.3170	-0.0808	0.0627	0.0169	0.0012
	High Yield	2.7182	0.2668	-0.2234	-0.0471	0.0037
	Low - High	-3.0352	-0.3476	0.2861	0.0640	-0.0024
	P-value	<.0001***	0.0076***	0.0185**	0.3435	0.9089

Panel D: Compare Cash Dividend ex-dividend day event rank by dividend yield

Event Window	Yield rank	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low yield	0.4413	-0.0109	-0.0479	0.0676	-0.0088
	High Yield	0.0699	0.1591	-0.1586	-0.0036	0.0031
	Low - High	0.3713	-0.1700	0.1106	0.0713	-0.0119
	P-value	0.0456**	0.1140	0.2887	0.2733	0.2070
Event day (0)	Low yield	0.2491	-0.0493	0.0252	0.0240	0.0000
	High Yield	0.7688	-0.0913	0.0709	0.0179	0.0024
	Low - High	-0.5197	0.0420	-0.0457	0.0061	-0.0024
	P-value	0.0211**	0.2979	0.2979	0.8271	0.4339
(+1,+3)	Low yield	-0.3095	-0.0409	0.0336	0.0029	0.0045
	High Yield	-1.1502	-0.0829	0.1004	-0.0099	-0.0076
	Low - High	0.8407	0.0420	-0.0668	0.0127	0.0120
	P-value	0.0026***	0.6487	0.4401	0.7500	0.4122

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to dividend yield rank. Dividend yield are ranked by yield on cash dividend announcement day into 5 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table4.1.3 Percentage cumulative abnormal returns and investors trade imbalance rank by firm size
Panel A: Cash Dividend Announcement day event rank by firm size

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	MCAP	Min	Max
(-3,-1)	504	0.6214 (0.0034)***	0.1085 (0.0074)***	-0.0282 (0.6526)	-0.0724 (0.148)	-0.0079 (0.0736)*	459.49	57.000	800.00
Event day (0)	504	1.0582 (<.0001)***	0.1132 (0.0212)**	-0.0897 (0.0608)*	-0.0231 (0.0848)*	-0.0004 (0.2788)	459.49	57.000	800.00
(+1,+3)	504	1.0611 (0.0015)***	0.2019 (0.0423)**	-0.0908 (0.2103)	-0.1095 (0.1153)	-0.0017 (0.7482)	459.49	57.000	800.00
(-3,-1)	504	0.4800 (0.0046)***	0.1314 (0.0096)***	-0.1290 (0.0246)**	0.0136 (0.6955)	-0.0160 (0.1186)	1236.50	800.04	1800.90
Event day (0)	504	0.9148 (<.0001)***	0.1450 (0.0033)***	-0.105 (0.0131)**	-0.0500 (0.0313)**	0.0100 (0.2522)	1236.50	800.04	1800.90
(+1,+3)	504	0.7781 (0.0017)***	0.2558 (0.0321)**	-0.1845 (0.136)	-0.0658 (0.0693)*	-0.0056 (0.2961)	1236.50	800.04	1800.90
(-3,-1)	504	0.3248 (0.0497)**	0.1616 (0.0397)**	-0.1221 (0.0692)*	-0.0392 (0.3883)	-0.0003 (0.9291)	2740.50	1808.00	4032.00
Event day (0)	504	0.7617 (<.0001)***	0.0642 (0.385)	-0.045 (0.361)	-0.0215 (0.6909)	0.0022 (0.4913)	2740.50	1808.00	4032.00
(+1,+3)	504	0.1369 (0.4659)	0.2927 (0.0181)**	-0.2446 (0.0482)**	-0.0656 (0.4339)	0.0175 (0.375)	2740.50	1808.00	4032.00
(-3,-1)	504	0.2135 (0.1736)	0.1362 (0.158)	-0.106 (0.2714)	-0.0352 (0.1895)	0.0050 (0.513)	6995.80	4046.70	11750.00
Event day (0)	504	0.5468 (<.0001)***	0.1513 (0.0241)**	-0.0997 (0.1284)	-0.0447 (0.1166)	-0.0070 (0.1105)	6995.80	4046.70	11750.00
(+1,+3)	504	0.4641 (0.0109)**	-0.1013 (0.3392)	-0.0268 (0.7089)	0.1277 (0.189)	0.0004 (0.9527)	6995.80	4046.70	11750.00
(-3,-1)	504	0.2120 (0.1227)	0.0616 (0.3155)	-0.0285 (0.6569)	-0.0251 (0.5347)	-0.0080 (0.2468)	80108.00	11760.00	960127.00
Event day (0)	504	0.1535 (0.0968)*	-0.0002 (0.9958)	-0.014 (0.5832)	-0.0214 (0.2788)	0.0357 (0.3427)	80108.00	11760.00	960127.00
(+1,+3)	504	0.5122 (0.0001)***	-0.0157 (0.7882)	0.0673 (0.2454)	-0.0475 (0.142)	-0.0041 (0.536)	80108.00	11760.00	960127.00

Panel B: Cash Dividend ex-dividend day event rank by firm size

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	MCAP	Min	Max
(-3,-1)	504	0.2448 (0.1881)	0.0880 (0.0697)*	-0.0483 (0.2922)	-0.0342 (0.1393)	-0.0054 (0.088)*	459.49	57.000	800.00
Event day (0)	504	1.1035 (<.0001)***	0.0049 (0.7148)	0.0061 (0.5855)	-0.0110 (0.1674)	0.0000 (0.9836)	459.49	57.000	800.00
(+1,+3)	504	-0.9023 (0.0001)***	0.0875 (0.1838)	-0.0263 (0.6583)	-0.0471 (0.0707)*	-0.0140 (0.2897)	459.49	57.000	800.00
(-3,-1)	504	0.4309 (0.0159)**	0.1548 (0.0435)**	-0.0956 (0.1674)	-0.0480 (0.3636)	-0.0112 (0.4758)	1236.50	800.04	1800.90
Event day (0)	504	0.3802 (0.0027)***	-0.1009 (0.0036)***	0.0918 (0.0065)***	0.0076 (0.4035)	0.0015 (0.3697)	1236.50	800.04	1800.90
(+1,+3)	504	-0.8045 (<.0001)***	0.0236 (0.7369)	0.0437 (0.5539)	-0.0704 (0.0707)*	0.0032 (0.5336)	1236.50	800.04	1800.90
(-3,-1)	504	0.4897 (0.0009)***	0.1221 (0.4703)	-0.1917 (0.2363)	0.0592 (0.2894)	0.0104 (0.0807)*	2740.50	1808.00	4032.00
Event day (0)	504	0.5071 (<.0001)***	-0.0862 (0.0041)***	0.0856 (0.0002)***	0.0012 (0.9492)	-0.0006 (0.8857)	2740.50	1808.00	4032.00
(+1,+3)	504	-0.3203 (0.0736)*	-0.0561 (0.4015)	0.0520 (0.3912)	-0.0013 (0.9761)	0.0054 (0.1483)	2740.50	1808.00	4032.00
(-3,-1)	504	0.3869 (0.0104)**	0.4102 (0.0933)*	-0.4036 (0.0962)*	0.0138 (0.8257)	-0.0204 (0.1223)	6995.80	4046.70	11750.00
Event day (0)	504	0.3853 (<.0001)***	-0.0281 (0.3794)	-0.017 (0.6655)	0.0417 (0.0895)*	0.0035 (0.0653)*	6995.80	4046.70	11750.00
(+1,+3)	504	-0.6203 (0.0022)***	-0.1211 (0.0133)**	0.1386 (0.0075)***	-0.0166 (0.6016)	-0.0009 (0.8928)	6995.80	4046.70	11750.00
(-3,-1)	504	0.4739 (0.0002)***	0.0939 (0.1234)	-0.0543 (0.3811)	-0.0567 (0.1097)	0.0171 (0.0115)**	80108.00	11760.00	960127.00
Event day (0)	504	0.3037 (0.0001)***	-0.0517 (0.0106)**	0.0332 (0.0896)*	0.0272 (0.0636)*	-0.0087 (0.0023)***	80108.00	11760.00	960127.00
(+1,+3)	504	-0.4037 (0.0158)**	-0.0862 (0.0581)*	0.0724 (0.1267)	0.0115 (0.7159)	0.0023 (0.5744)	80108.00	11760.00	960127.00

Panel C: Compare Cash Dividend Announcement day event rank by Firm Size

Event Window	Size rank	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Size	0.6214	0.1085	-0.0282	-0.0724	-0.0079
	High Size	0.2120	0.0616	-0.0285	-0.0251	-0.0080
	Low - High	0.4094	0.0469	0.0003	-0.0473	0.0001
	P-value	0.1044	0.5374	0.9970	0.4567	0.9869
Event day (0)	Low Size	1.0582	0.1132	-0.0897	-0.0231	-0.0004
	High Size	0.1535	-0.0002	-0.0140	-0.0214	0.0357
	Low - High	0.9047	0.1134	-0.0757	-0.0016	-0.0361
	P-value	0.0003***	0.0658*	0.1398	0.9484	0.3928
(+1,+3)	Low Size	1.0611	0.2019	-0.0908	-0.1095	-0.0017
	High Size	0.5122	-0.0157	0.0673	-0.0475	-0.0041
	Low - High	0.5489	0.2176	-0.1581	-0.0619	0.0024
	P-value	0.1249	0.0544*	0.0860*	0.4073	0.7779

Panel D: Compare Cash Dividend ex-dividend day event rank by Firm Size

Event Window	Size rank	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Size	0.2448	0.0880	-0.0483	-0.0342	-0.0054
	High Size	0.4739	0.0939	-0.0543	-0.0567	0.0171
	Low - High	-0.2291	-0.0059	0.0060	0.0225	-0.0225
	P-value	0.3099	0.9397	0.9388	0.5993	0.0031***
Event day (0)	Low Size	1.1035	0.0049	0.0061	-0.0110	0.0000
	High Size	0.3037	-0.0517	0.0332	0.0272	-0.0087
	Low - High	0.7998	0.0567	-0.0271	-0.0383	0.0087
	P-value	<.0001***	0.0250**	0.2514	0.0298**	0.0088***
(+1,+3)	Low Size	-0.9023	0.0876	-0.0263	-0.0471	-0.0140
	High Size	-0.4037	-0.0862	0.0724	0.0115	0.0023
	Low - High	-0.4986	0.1738	-0.0988	-0.0586	-0.0163
	P-value	0.0839*	0.0277**	0.1907	0.1570	0.2223

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to firm size rank. Firm sizes are ranked by market size cash dividend announcement day into 5 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table4.1.4 Percentage cumulative abnormal returns and investors trade imbalance of change in dividend amount

Panel A: Cash Dividend Increase around announcement day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	1178	0.5908	0.1213	-0.0668	-0.0451	-0.0094
		(<.0001)***	(0.0015)***	(0.1364)	(0.1365)	(0.1312)
Event day (0)	1178	0.9608	0.1693	-0.1226	-0.0477	0.001
		(<.0001)***	(0.0001)***	(0.0019)***	(0.0205)**	(0.828)
(+1,+3)	1178	0.9321	0.1344	-0.0824	-0.0415	-0.0105
		(<.0001)***	(0.0571)*	(0.1271)	(0.4461)	(0.0209)**

Panel B: Cash Dividend Decrease around announcement day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	867	0.1818	0.1363	-0.1166	-0.0158	-0.0038
		(0.1426)	(0.0418)**	(0.0818)*	(0.3996)	(0.2134)
Event day (0)	867	0.2902	0.0105	-0.0223	-0.0115	0.0234
		(0.0093)***	(0.7434)	(0.3241)	(0.4961)	(0.3253)
(+1,+3)	867	0.1739	0.0956	-0.0876	-0.012	0.004
		(0.2848)	(0.084)*	(0.1482)	(0.7089)	(0.3688)

Panel C: Cash Dividend Unchanged around announcement day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	390	0.0707	0.1622	-0.1011	-0.0629	0.0018
		(0.7171)	(0.008)***	(0.0134)**	(0.2264)	(0.5881)
Event day (0)	390	0.6436	0.1119	-0.0445	-0.0649	-0.0025
		(0.0004)***	(0.0467)**	(0.2549)	(0.2011)	(0.1738)
(+1,+3)	390	0.4969	0.1035	-0.0635	-0.0687	0.0287
		(0.0212)**	(0.3751)	(0.5525)	(0.4007)	(0.26)

Panel D: Compare Cash Dividend Increase, Decrease and Unchanged around Announcement day

Event Window	Dividend Change	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,0)	Dividend Decrease	0.1818	0.1363	-0.1166	-0.0158	-0.0038
	Dividend Increase	0.5908	0.1213	-0.0668	-0.0451	-0.0094
	Decrease - Increase	-0.4089	0.0150	-0.0498	0.0292	0.0056
	P-value	0.0157**	0.8352	0.5212	0.4490	0.4682
Event day	Dividend Decrease	0.2902	0.0105	-0.0223	-0.0115	0.0234
	Dividend Increase	0.9608	0.1693	-0.1226	-0.0477	0.0010
	Decrease - Increase	-0.6705	-0.1588	0.1003	0.0361	0.0224
	P-value	<.0001***	0.0065***	0.0438**	0.1970	0.2869
(+1,+3)	Dividend Decrease	0.1739	0.0956	-0.0876	-0.0120	0.0040
	Dividend Increase	0.9321	0.1344	-0.0824	-0.0415	-0.0105
	Decrease - Increase	-0.7582	-0.0388	-0.0052	0.0295	0.0145
	P-value	0.0010***	0.6833	0.9491	0.6708	0.0265**

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those of dividend increase and dividend decrease. There are four investors types 1) retails investors 2) foreign investors 3) institution investors. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table 4.2.1 Percentage cumulative abnormal returns and investors trade imbalance of cash dividend long term (0,+11) rank by dividend yield
Panel A: Cash Dividend Long term rank by dividend yield

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	YIELD	Min	Max
Event Month (0)	504	-0.2073	-0.0080	0.0054	0.0023	0.0003	1.50	0.304	2.18
		(0.6165)	(0.5286)	(0.6356)	(0.7418)	(0.9108)			
Post Event Month (+1,+11)		-4.6460	0.2542	-0.1902	-0.0599	-0.0040			
		(0.0019)***	(0.0007)***	(0.0049)***	(0.2808)	(0.7579)			
Event Month (0)	503	-0.2280	0.0335	-0.0228	-0.0099	-0.0008	2.76	2.19	3.29
		(0.5338)	(0.035)**	(0.188)	(0.2101)	(0.1073)			
Post Event Month (+1,+11)		-0.6614	0.2685	-0.0673	-0.1778	-0.0233			
		(0.6487)	(0.0008)***	(0.3824)	(0.0001)***	(0.0107)**			
Event Month (0)	506	0.3901	0.0479	-0.0250	-0.0234	0.0006	3.89	3.30	4.63
		(0.3701)	(0.0086)***	(0.1428)	(0.0476)**	(0.5519)			
Post Event Month (+1,+11)		0.9005	0.3355	-0.2169	-0.1296	0.0109			
		(0.5707)	(0.0001)***	(0.0067)***	(0.0134)**	(0.3005)			
Event Month (0)	503	1.5238	0.0689	-0.0360	-0.0343	0.0015	5.52	4.64	6.56
		(0.0024)***	(0.0001)***	(0.0054)***	(0.0304)**	(0.4559)			
Post Event Month (+1,+11)		0.3535	0.2885	-0.1928	-0.0649	-0.0307			
		(0.8252)	(0.0003)***	(0.0111)**	(0.1552)	(0.0718)*			
Event Month (0)	504	5.8115	0.1065	-0.0836	-0.0244	0.0015	9.08	6.56	46.90
		(<.0001)***	(<.0001)***	(<.0001)***	(0.1012)	(0.6988)			
Post Event Month (+1,+11)		9.0845	0.3383	-0.2473	-0.1123	0.0212			
		(<.0001)***	(0.0002)***	(0.0006)***	(0.0709)*	(0.5955)			

Panel B : Compare Cash Dividend long term event rank by Dividend Yield

Event Window	Yield rank	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	Low Yield	-0.2073	-0.0080	0.0054	0.0023	0.0003
	High Yield	5.8115	0.1065	-0.0836	-0.0244	0.0015
	Low - High	-6.0187	-0.1145	0.0891	0.0266	-0.0012
	P-value	<0.0001***	<0.0001***	0.0001***	0.1037	0.7921
Post Event month (+1,+11)	Low Yield	-4.6456	0.2542	-0.1902	-0.0599	-0.0040
	High Yield	9.0845	0.3383	-0.2473	-0.1123	0.0212
	Low - High	-13.7300	-0.0842	0.0571	0.0524	-0.0253
	P-value	<0.0001***	0.4709	0.5611	0.5292	0.5480

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to dividend yield rank. There are four investors types 1) retails investors 2) foreign investors 3) institution investors. Dividend yield are ranked by yield on cash dividend announcement day into 5 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table4.2.2 Percentage cumulative abnormal returns and investors trade imbalance of cash dividend long term (0,+11) rank by firm size

Panel A: Cash Dividend Long term rank by firm size

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	MCAP	Min	Max
Event Month (0)	504	2.9274 (<.0001)***	0.0932 (<.0001)***	-0.0478 (0.0058)***	-0.0426 (0.0058)***	-0.0028 (0.0694)*	459.49	57.000	800.00
Post Event Month (+1,+11)		6.3242 (0.0002)***	0.4027 (<.0001)***	-0.1671 (0.0184)**	-0.1882 (0.0001)***	-0.0474 (0.0331)**			
Event Month (0)	504	1.3617 (0.006)***	0.0855 (<.0001)***	-0.0649 (0.0003)***	-0.0213 (0.1125)	0.0007 (0.7082)	1236.50	800.04	1800.90
Post Event Month (+1,+11)		2.8636 (0.1344)	0.3963 (<.0001)***	-0.3316 (0.0001)***	-0.0668 (0.2315)	0.0021 (0.9486)			
Event Month (0)	504	1.2612 (0.0127)**	0.0542 (0.0032)***	-0.0538 (0.0019)***	-0.0044 (0.7358)	0.0039 (0.2437)	2740.50	1808.00	4032.00
Post Event Month (+1,+11)		-2.6740 (0.0748)*	0.4462 (<.0001)***	-0.3437 (<.0001)***	-0.0973 (0.0933)*	-0.0052 (0.6754)			
Event Month (0)	504	0.8973 (0.0254)**	0.0210 (0.2117)	-0.0095 (0.5479)	-0.0120 (0.212)	0.0005 (0.7934)	6995.80	4046.70	11750.00
Post Event Month (+1,+11)		-1.5240 (0.3213)	0.2323 (0.0033)***	-0.0218 (0.7674)	-0.2136 (0.0005)***	0.0031 (0.7292)			
Event Month (0)	504	0.8416 (0.0124)**	-0.0050 (0.5988)	0.0139 (0.2071)	-0.0096 (0.1531)	0.0007 (0.7571)	80108.00	11760.00	960127.00
Post Event Month (+1,+11)		0.0465 (0.9715)	0.0077 (0.8789)	-0.0507 (0.2907)	0.0214 (0.5517)	0.0216 (0.3019)			

Panel B : Compare Cash Dividend long term event rank by firm size

Event Window	Firm rank	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	Low Size	2.9274	0.0932	-0.0478	-0.0426	-0.0028
	High Size	0.8416	-0.0050	0.0139	-0.0096	0.0007
	Low - High	2.0859	0.0982	-0.0617	-0.0330	-0.0035
	P-value	0.0020***	<0.0001***	0.0026***	0.0497**	0.1976
Post Event month (+1,+11)	Low Size	6.2416	0.4027	-0.1671	-0.1882	-0.0474
	High Size	0.0465	0.0077	-0.0507	0.0214	0.0216
	Low - High	6.1951	0.3950	-0.1164	-0.2096	-0.0690
	P-value	0.0030***	<0.0001***	0.1731	0.0006***	0.0238**

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to firm size rank. There are four investors types 1) retails investors 2) foreign investors 3) institution investors. Firm sizes are ranked by market size cash dividend announcement day into 5 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table 4.2.3 Percentage cumulative abnormal returns and investors trade imbalance of cash dividend long term (0,+11) of change in cash dividend

Panel A: cash dividend long term event for dividend increase

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	1178	2.7885	0.0430	-0.0242	-0.0190	0.0002
		(<.0001)***	(0.0004)***	(0.0321)**	(0.0151)**	(0.8791)
Post Event Month (+1,+11)		3.6901	0.2749	-0.1867	-0.0815	-0.0067
		(0.0007)***	(<.0001)***	(<.0001)***	(0.0192)**	(0.6423)

Panel B: cash dividend long term event for dividend decrease

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	867	0.1564	0.0478	-0.0343	-0.0131	-0.0004
		(0.6209)	(<.0001)***	(0.0034)***	(0.0475)**	(0.7624)
Post Event Month (+1,+11)		-1.1350	0.2489	-0.1249	-0.1044	-0.0196
		(0.3146)	(<.0001)***	(0.0351)**	(0.0009)***	(0.0306)**

Panel C: cash dividend long term event for unchanged in cash dividend

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	390	-0.2422	0.0901	-0.0589	-0.0343	0.0031
		(0.5571)	(0.0002)***	(0.0006)***	(0.0919)*	(0.4462)
Post Event Month (+1,+11)		-1.7110	0.4924	-0.3325	-0.1839	0.0240
		(0.3083)	(<.0001)***	(0.0002)***	(0.0224)**	(0.5322)

Panel D: Compare cash dividend long term event of Dividend increase and Dividend decrease

Event Window	Dividend Change	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	Dividend Decrease	0.1564	0.0478	-0.0343	-0.0131	-0.0004
	Dividend Increase	2.7885	0.0430	-0.0242	-0.0190	0.0002
	Decrease - Increase	-2.6321	0.0048	-0.0101	0.0059	-0.0006
	P-value	<0.0001***	0.7796	0.5405	0.5802	0.7473
Post Event Month (+1,11)	Dividend Decrease	-1.3465	0.2489	-0.1249	-0.1044	-0.0196
	Dividend Increase	3.6901	0.2749	-0.1867	-0.0815	-0.0066
	Decrease - Increase	-5.0366	-0.0260	0.0618	-0.0229	-0.0130
	P-value	0.0025***	0.7441	0.4113	0.6382	0.4827

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those of dividend increase and dividend decrease. There are four investors types 1) retails investors 2) foreign investors 3) institution investors. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table4.3.1 Percentage cumulative abnormal returns and investors trade imbalance of stock Splits event

Panel A: Stock Split around Announcement day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	163	2.4126	0.0753	-0.1606	0.0549	0.0305
		(<.0001)***	(0.7441)	(0.4292)	(0.5439)	(0.3555)
Event day (0)	163	1.7168	0.2374	-0.2578	0.0243	-0.0038
		(0.0001)***	(0.1088)	(0.058)*	(0.6903)	(0.8096)
(+1,+3)	163	1.0584	0.3560	-0.3327	0.0222	-0.0454
		(0.0573)*	(0.0952)*	(0.1314)	(0.7131)	(0.5226)

Panel B: Stock Split around effect day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	163	2.4571	0.2674	-0.2791	-0.0065	0.0182
		(<.0001)***	(0.0093)***	(0.0115)**	(0.9405)	(0.6338)
Event day (0)	163	-0.5520	0.0027	-0.0038	0.0188	-0.0177
		(0.0536)*	(0.9565)	(0.9249)	(0.5837)	(0.1138)
(+1,+3)	163	0.7887	0.3544	-0.2851	-0.0621	-0.0071
		(0.1646)	(0.0695)*	(0.0971)*	(0.3503)	(0.886)

These tables show the percentage cumulative abnormal returns (CAR) and trading imbalance of all investor types. There are four investors types 1) retails investors 2) foreign investors 3) institution investors 4) proprietary investors. The CAR is calculated for selected period around the announcement day and effect day, both denoted as day 0. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table4.3.2 Percentage cumulative abnormal returns and investors trade imbalance of stock splits rank by firm Size
Panel A: Stock Split Announcement day rank by firm Size

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	MCAP	Min	Max
(-3,-1)	54	3.1265 (0.0005)***	0.0166 (0.9731)	0.0281 (0.9476)	-0.1441 (0.3667)	0.0994 (0.3212)	968.18	303.630	1690.00
Event day (0)	54	2.9731 (0.0031)***	0.3884 (0.2664)	-0.3972 (0.245)	-0.0197 (0.7972)	0.0285 (0.3626)	968.18	303.630	1690.00
(+1,+3)	54	1.0128 (0.4409)	0.5476 (0.0511)*	-0.578 (0.0624)*	0.0196 (0.6723)	0.0108 (0.2985)	968.18	303.630	1690.00
(-3,-1)	55	2.7532 (0.0012)***	0.1197 (0.8002)	-0.4151 (0.3285)	0.2938 (0.1287)	0.0016 (0.8671)	2929.20	1740.00	4602.00
Event day (0)	55	1.3097 (0.0371)**	0.0537 (0.8248)	-0.1888 (0.2987)	0.1387 (0.369)	-0.0036 (0.3777)	2929.20	1740.00	4602.00
(+1,+3)	55	1.6004 (0.0665)*	-0.0283 (0.9535)	-0.1951 (0.6824)	0.1719 (0.1802)	0.0515 (0.0531)*	2929.20	1740.00	4602.00
(-3,-1)	54	1.3519 (0.0168)**	0.0892 (0.6194)	-0.0973 (0.5212)	0.0163 (0.8823)	-0.0081 (0.1243)	26436.00	4604.60	374621.00
Event day (0)	54	0.8751 (0.1533)	0.2722 (0.0738)*	-0.1913 (0.2085)	-0.0457 (0.4795)	-0.0351 (0.3258)	26436.00	4604.60	374621.00
(+1,+3)	54	0.5521 (0.3547)	0.5521 (0.0783)*	-0.2362 (0.4936)	-0.1224 (0.2923)	-0.1935 (0.3498)	26436.00	4604.60	374621.00

Panel B: **Stock Split rank by firm Size Effect day**

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	MCAP	Min	Max
(-3,-1)	54	2.7014 (<.0001)***	0.4528 (0.0183)**	-0.4214 (0.0613)*	-0.1187 (0.2058)	0.0873 (0.4491)	968.18	303.630	1690.00
Event day (0)	54	-0.447 (0.4327)	0.0166 (0.7396)	0.0146 (0.7252)	0.0023 (0.3543)	-0.0334 (0.318)	968.18	303.630	1690.00
(+1,+3)	54	0.3504 (0.7481)	0.1339 (0.3964)	-0.1812 (0.0547)*	-0.0320 (0.606)	0.0793 (0.4729)	968.18	303.630	1690.00
(-3,-1)	55	2.4162 (0.0004)***	0.1400 (0.4207)	-0.1865 (0.2265)	0.0480 (0.8157)	-0.0014 (0.8655)	2929.20	1740.00	4602.00
Event day (0)	55	-0.9179 (0.0642)*	0.0188 (0.8696)	-0.0952 (0.2807)	0.0888 (0.2485)	-0.0125 (0.0843)*	2929.20	1740.00	4602.00
(+1,+3)	55	1.7983 (0.0587)*	0.7199 (0.1903)	-0.6794 (0.1571)	0.0604 (0.6794)	-0.1008 (0.3213)	2929.20	1740.00	4602.00
(-3,-1)	54	2.2546 (0.0001)***	0.2187 (0.2059)	-0.2365 (0.2279)	0.0461 (0.7132)	-0.0283 (0.3123)	26436.00	4604.60	374621.00
Event day (0)	54	-0.2843 (0.4999)	-0.0263 (0.7379)	0.0684 (0.3474)	-0.0342 (0.6102)	-0.0078 (0.1906)	26436.00	4604.60	374621.00
(+1,+3)	54	0.1987 (0.829)	0.2053 (0.1161)	0.0071 (0.9649)	-0.2142 (0.077)*	0.0018 (0.4346)	26436.00	4604.60	374621.00

Panel C: Compare Stock Splits Announcement day event rank by Firm Size

Event Window	Size rank	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Size	3.1265	0.0166	0.0281	-0.1441	0.0994
	High Size	1.3519	0.0892	-0.0973	0.0163	-0.0081
	Low - High	1.7746	-0.0725	0.1254	-0.1603	0.1075
	P-value	0.0814*	0.8881	0.7783	0.4034	0.2727
Event day (0)	Low Size	2.9731	0.3884	-0.3972	-0.0197	0.0285
	High Size	0.8751	0.2722	-0.1913	-0.0457	-0.3515
	Low - High	2.0979	0.1163	-0.2059	0.0260	0.3800
	P-value	0.0673*	0.7550	0.5740	0.7945	0.1807
(+1,+3)	Low Size	1.0128	0.5476	-0.5780	0.0196	0.0108
	High Size	0.5521	0.5521	-0.2362	-1.2241	-0.1935
	Low - High	0.4607	-0.0045	-0.3418	1.2437	0.2043
	P-value	0.7483	0.9914	0.4586	0.2647	0.3360

Panel D: Compare Stock Splits effect day event rank by Firm Size

Event Window	Size rank	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Size	2.7014	0.4528	-0.4114	-0.1187	0.0873
	High Size	2.2546	0.2187	-0.2365	0.0461	-0.0283
	Low - High	0.4467	0.2341	-0.1749	-0.1648	0.1155
	P-value	0.5873	0.3547	0.5291	0.2940	0.3203
Event day (0)	Low Size	-0.4470	0.0168	0.0146	0.0023	-0.0334
	High Size	-0.2843	-0.0263	0.0684	-0.0342	-0.0078
	Low - High	-0.1627	0.0431	-0.0538	0.0365	-0.0256
	P-value	0.8175	0.6485	0.5254	0.5867	0.4366
(+1,+3)	Low Size	0.3504	0.1339	-0.1812	-0.0320	0.0793
	High Size	0.1987	0.2053	0.0071	-0.2142	0.0018
	Low - High	0.1517	-0.0714	-0.1883	0.1822	0.0774
	P-value	0.9151	0.7248	0.3132	0.1787	0.4776

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to firm size rank. Firm sizes are ranked by market size on stock splits announcement day into 3 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table4.3.3 Percentage cumulative abnormal returns and investors trade imbalance of stock splits rank by split factors
Panel A Stock Split rank by split factors around Announcement day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	SPFAC	Min	Max
(-3,-1)	32	4.3421 (0.0005)***	0.4477 (0.4586)	-0.8083 (0.1167)	0.3541 (0.1979)	0.0065 (0.2089)	2.08	2.000	4.00
Event day (0)	32	0.854 (0.366)	0.0391 (0.9121)	-0.2391 (0.2817)	0.2593 (0.3057)	-0.0593 (0.2956)	2.08	2.000	4.00
(+1,+3)	32	0.7745 (0.6117)	0.3135 (0.5928)	-0.5213 (0.3379)	0.1985 (0.3268)	0.0094 (0.782)	2.08	2.000	4.00
(-3,-1)	34	2.8467 (0.0019)***	0.0863 (0.8417)	-0.0796 (0.8534)	0.0078 (0.9271)	-0.0145 (0.3548)	5.03	5.00	6.00
Event day (0)	34	0.7642 (0.3837)	0.3095 (0.0567)*	-0.327 (0.0524)*	0.0189 (0.657)	-0.0014 (0.6906)	5.03	5.00	6.00
(+1,+3)	34	1.1843 (0.2576)	0.4544 (0.1648)	-0.5392 (0.1335)	0.0269 (0.627)	0.0579 (0.1574)	5.03	5.00	6.00
(-3,-1)	97	1.624 (0.0035)***	-0.0552 (0.8533)	0.0323 (0.8998)	-0.0310 (0.791)	0.0539 (0.3287)	10.00	10.00	10.00
Event day (0)	97	2.3353 (0.0001)***	0.2802 (0.1829)	-0.2417 (0.243)	-0.0524 (0.3412)	0.0139 (0.4514)	10.00	10.00	10.00
(+1,+3)	97	1.108 (0.1188)	0.3356 (0.2346)	-0.1946 (0.5198)	-0.0402 (0.5844)	-0.1008 (0.3982)	10.00	10.00	10.00

Panel B Stock Split rank by Split Factor around Effect day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	SPFAC	Min	Max
(-3,-1)	32	1.4612 (0.0328)**	0.2612 (0.2018)	-0.2002 (0.0542)*	-0.0569 (0.7148)	-0.0042 (0.7748)	2.08	2.000	4.00
Event day (0)	32	-0.995 (0.1715)	-0.0753 (0.0792)*	0.034 (0.3851)	0.0392 (0.1535)	0.0021 (0.5521)	2.08	2.000	4.00
(+1,+3)	32	0.1162 (0.9282)	0.0402 (0.7346)	0.0197 (0.7674)	-0.0574 (0.5818)	-0.0026 (0.7907)	2.08	2.000	4.00
(-3,-1)	34	0.9888 (0.1588)	0.0439 (0.812)	-0.0797 (0.6482)	0.0417 (0.2276)	-0.0058 (0.6235)	5.03	5.00	6.00
Event day (0)	34	-0.4172 (0.3159)	0.1326 (0.0405)**	-0.0538 (0.2581)	-0.0267 (0.0951)*	-0.0521 (0.3013)	5.03	5.00	6.00
(+1,+3)	34	0.6843 (0.6317)	-0.064 (0.7455)	0.1277 (0.4929)	0.1381 (0.3513)	-0.2017 (0.2306)	5.03	5.00	6.00
(-3,-1)	97	3.3004 (<.0001)***	0.3521 (0.0172)**	-0.3802 (0.0301)**	-0.0067 (0.9613)	0.0349 (0.5944)	10.00	10.00	10.00
Event day (0)	97	-0.4531 (0.2507)	-0.0188 (0.8118)	0.0018 (0.9779)	0.0287 (0.6184)	-0.0117 (0.0277)**	10.00	10.00	10.00
(+1,+3)	97	1.0471 (0.137)	0.61 (0.0572)*	-0.5356 (0.0579)*	-0.1354 (0.1483)	0.0610 (0.3001)	10.00	10.00	10.00

Panel C: Compare Stock Splits Announcement day event rank by Split Factor

Event Window	SP FACTOR	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Spfac	4.3421	0.4477	-0.8083	0.3542	0.0065
	High Spfac	1.6240	-0.0552	0.0323	-0.0310	0.0539
	Low- High	2.7181	0.5029	-0.8406	0.3852	-0.0475
	P-value	0.0183**	0.4167	0.1129	0.1319	0.6160
Event day (0)	Low Spfac	0.8540	0.0391	-0.2391	0.2593	-0.0593
	High Spfac	2.3353	0.2802	-0.2417	-0.0524	0.0139
	Low- High	-1.4812	-0.2411	0.0026	0.3117	-0.0732
	P-value	0.1979	0.5620	0.9946	0.0714*	0.1074
(+1,+3)	Low Spfac	0.7745	0.3135	-0.5213	0.1985	0.0094
	High Spfac	1.1080	0.3356	-0.1946	-0.0402	-0.1008
	Low- High	-0.3335	-0.0222	-0.3267	0.2387	0.1102
	P-value	0.8244	0.9699	0.5882	0.1644	0.5900

Panel D: Compare Stock Splits Effect day event rank by Split Factor

Event Window	SP FACTOR	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Spfac	0.0094	0.2612	-0.2002	-0.0569	-0.0042
	High Spfac	-0.1008	0.3521	-0.3802	-0.0067	0.0349
	Low- High	0.1102	-0.0909	0.1801	-0.0501	-0.0390
	P-value	0.5900	0.7399	0.5483	0.8427	0.7262
Event day (0)	Low Spfac	-0.9950	-0.0753	0.0340	0.0392	0.0021
	High Spfac	-0.4531	-0.0188	0.0018	0.0287	-0.0117
	Low- High	-0.5419	-0.0565	0.0321	0.0106	0.0138
	P-value	0.4969	0.6844	0.7828	0.9166	0.1399
(+1,+3)	Low Spfac	0.1162	0.0402	0.0197	-0.0574	-0.0026
	High Spfac	1.0471	0.6100	-0.5356	-0.1354	0.0610
	Low- High	-0.9309	-0.5697	0.5553	0.0780	-0.0636
	P-value	0.5133	0.3036	0.2528	0.6494	0.5315

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to split factor rank. Splits factor are ranked by stock splits ratio on stock splits announcement day into 3 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table4.4.1 Percentage cumulative abnormal returns and investors trade imbalance of stock splits

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	163	8.2016	0.1141	-0.0909	-0.0172	-0.0060
		(<.0001)***	(0.0039)***	(0.0213)**	(0.4099)	(0.2759)
Post Event Month (+1,+11)		-0.2623	0.2542	-0.1903	-0.0338	-0.0301
		(0.9361)	(0.0789)*	(0.1977)	(0.5269)	(0.1536)

This table shows the percentage cumulative abnormal returns (CAR) and trading imbalance of all investor types on stock splits announcement month and 11 months onward. There are four investors types 1) retails investors 2) foreign investors 3) institution investors. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table4.4.2 Percentage cumulative abnormal returns and investors trade imbalance of stock splits rank by firm size

Panel A: Stock splits long term event rank by firm size

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	MCAP	Min	Max
Event Month (0)	54	10.1040	0.1516	-0.1435	-0.0096	0.0014	968.18	303.630	1690.00
		(0.0014)***	(0.0061)***	(0.0144)**	(0.7741)	(0.8697)			
Post Event Month (+1,+11)		3.2719	0.1193	-0.1598	0.0226	0.0179			
		(0.5806)	(0.6133)	(0.4733)	(0.8036)	(0.6039)			
Event Month (0)	55	8.7953	0.1095	-0.0974	-0.0077	-0.0044	2929.20	1740.00	4602.00
		(0.0047)***	(0.2464)	(0.2977)	(0.8718)	(0.3431)			
Post Event Month (+1,+11)		-3.9990	0.7125	-0.6944	0.0680	-0.0861			
		(0.4937)	(0.0218)**	(0.0298)**	(0.4676)	(0.0903)*			
Event Month (0)	54	5.6948	0.0812	-0.0316	-0.0345	-0.0151	26436.00	4604.60	374621.00
		(0.0016)***	(0.0829)*	(0.4663)	(0.147)	(0.2605)			
Post Event Month (+1,+11)		0.0095	-0.0779	0.2925	-0.1938	-0.0209			
		(0.9986)	(0.6779)	(0.1549)	(0.038)**	(0.1394)			

Panel B : Compare Stock splits long term event rank by firm size

Event Window	Size rank	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	Low Size	10.1039	0.1516	-0.1435	-0.0096	0.0014
	High Size	5.6948	0.0812	-0.0316	-0.0345	-0.0151
	Low - High	4.4091	0.0705	-0.1119	0.0250	0.0165
	P-value	0.2029	0.3180	0.1187	0.5400	0.3010
Post Event month (+1,+11)	Low Size	3.2719	0.1193	-0.1598	0.0226	0.0179
	High Size	0.0095	-0.0779	0.2925	-0.1938	-0.0209
	Low - High	3.2624	0.1972	-0.4523	0.2164	0.0387
	P-value	0.6819	0.5121	0.1346	0.0946*	0.2966

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to firm size rank. Firm sizes are ranked by market size on stock splits announcement day into 3 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table 4.4.3 Percentage cumulative abnormal returns and investors trade imbalance of stock splits rank by split factors

Panel A: Stock splits long term event rank by split factors

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	SPFAC	Min	Max
Event Month (0)	32	7.5349	0.0846	-0.1188	0.0431	-0.0089	2.08	2.000	4.00
		(0.0754)*	(0.2204)	(0.0601)*	(0.1455)	(0.2677)			
Post Event Month (+1,+11)		4.2521	-0.1138	0.0886	0.0359	-0.0107			
		(0.5711)	(0.3399)	(0.4653)	(0.7278)	(0.473)			
Event Month (0)	34	11.3920	0.0267	0.0218	-0.0422	-0.0063	5.03	5.00	6.00
		(0.0019)***	(0.5148)	(0.5406)	(0.1735)	(0.4093)			
Post Event Month (+1,+11)		10.0210	-0.2511	0.3272	-0.0530	-0.0230			
		(0.1798)	(0.0647)*	(0.0782)*	(0.5517)	(0.1703)			
Event Month (0)	97	7.3034	0.1544	-0.1212	-0.0283	-0.0049	10.00	10.00	10.00
		(0.0001)***	(0.0114)**	(0.05)**	(0.3759)	(0.5634)			
Post Event Month (+1,+11)		-5.3560	0.5526	-0.4637	-0.0500	-0.0389			
		(0.1998)	(0.018)**	(0.0487)**	(0.5191)	(0.262)			

Panel B : Compare Stock splits long term event rank by Split factor

Event Window	SPFAC rank	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	Low Spfac	7.5349	0.0846	-0.1188	0.0431	-0.0089
	High Spfac	7.3034	0.1544	-0.1212	-0.0283	-0.0049
	Low - High	0.2315	-0.0698	0.0024	0.0714	-0.0040
	P-value	0.9533	0.5318	0.9831	0.2204	0.7957
Post Event month (+1,+11)	Low Spfac	4.2521	-0.1138	0.0886	0.0359	-0.0107
	High Spfac	-5.3561	0.5526	-0.4637	-0.0500	-0.0389
	Low - High	9.6082	-0.6664	0.5523	0.0859	0.0282
	P-value	0.2542	0.1035	0.1815	0.5598	0.6435

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to split factor rank. Splits factor are ranked by stock splits ratio on stock splits announcement day into 3 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table 4.5.1 Percentage cumulative abnormal returns and investors trade imbalance of stock dividend

Panel A: Stock Dividend around Announcement day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	86	2.0916	0.4945	-0.3050	-0.1739	-0.0155
		(0.0007)***	(0.1267)	(0.3126)	(0.211)	(0.2613)
Event day (0)	86	3.9076	0.9838	-0.6680	-0.2862	-0.0297
		(<.0001)***	(0.001)***	(0.0071)***	(0.0513)*	(0.2159)
(+1,+3)	86	-0.2614	1.158	-0.9729	-0.1924	0.0073
		(0.7318)	(0.0002)***	(0.0009)***	(0.0893)*	(0.7274)

Panel B Stock Dividend around ex-dividend day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	86	0.9313	0.9987	-0.6810	-0.2855	-0.0322
		(0.0616)*	(0.0052)***	(0.0075)***	(0.3249)	(0.2599)
Event day (0)	86	2.4632	0.2920	-0.1094	-0.1647	-0.0179
		(0.0042)***	(0.0125)**	(0.1723)	(0.0202)**	(0.162)
(+1,+3)	86	-1.8900	0.3117	-0.1884	-0.1137	-0.0096
		(0.0007)***	(0.0268)**	(0.0954)*	(0.0715)*	(0.487)

These tables show the percentage cumulative abnormal returns (CAR) and trading imbalance of all investor types. There are four investors types 1) retails investors 2) foreign investors 3) institution investors 4) proprietary investors. The CAR is calculated for selected period around the announcement day and ex-dividend day, both denoted as day 0. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table 4.5.2 Percentage cumulative abnormal returns and investors trade imbalance of stock dividend rank by firm size
Panel A: Stock Dividend rank by firm size Announcement day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	MCAP	Min	Max
(-3,-1)	28	0.8542 (0.4562)	0.1326 (0.6355)	-0.1270 (0.6499)	-0.0056 (0.3282)	0.0000 (0.3584)	612.22	123.900	1023.70
Event day (0)	28	2.9421 (0.1100)	0.8728 (0.1013)	-0.4893 (0.0916)*	-0.3746 (0.3198)	-0.0089 (0.6623)	612.22	123.900	1023.70
(+1,+3)	28	-1.0890 (0.1914)	1.0256 (0.0702)*	-0.9409 (0.0836)*	-0.0740 (0.3269)	-0.0107 (0.3456)	612.22	123.900	1023.70
(-3,-1)	29	3.8742 (0.0017)***	0.5615 (0.285)	-0.5106 (0.354)	-0.0523 (0.3874)	0.0014 (0.6244)	2038.00	1030.70	3744.00
Event day (0)	29	5.0763 (0.0037)***	1.0815 (0.0754)*	-0.9803 (0.1002)	-0.0975 (0.1699)	-0.0037 (0.1869)	2038.00	1030.70	3744.00
(+1,+3)	29	-1.5700 (0.344)	1.1291 (0.0292)**	-1.1420 (0.0286)**	0.0012 (0.9200)	0.0118 (0.5275)	2038.00	1030.70	3744.00
(-3,-1)	29	1.5036 (0.0534)*	0.7144 (0.3213)	-0.2405 (0.6976)	-0.4291 (0.2687)	-0.0448 (0.2498)	13308.00	3773.00	50746.00
Event day (0)	29	3.6712 (0.0011)***	0.9857 (0.0216)**	-0.5158 (0.1187)	-0.3955 (0.1293)	-0.0744 (0.2733)	13308.00	3773.00	50746.00
(+1,+3)	29	1.8457 (0.1661)	1.3057 (0.0149)**	-0.8324 (0.0834)*	-0.4921 (0.1272)	0.0188 (0.7441)	13308.00	3773.00	50746.00

Panel B Stock Dividend rank by firm size ex-dividend day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	MCAP	Min	Max
(-3,-1)	28	1.1150 (0.0867)*	0.5627 (0.0257)**	-0.5050 (0.0177)**	-0.0576 (0.3273)	0.0000 (0.1812)	612.22	123.900	1023.70
Event day (0)	28	0.8897 (0.2911)	0.2022 (0.3978)	-0.1742 (0.466)	-0.0321 (0.3293)	0.0041 (0.3293)	612.22	123.900	1023.70
(+1,+3)	28	-1.6400 (0.0365)**	-0.0430 (0.2313)	0.0468 (0.1888)	0.0000 (0.9999)	-0.0038 (0.3316)	612.22	123.900	1023.70
(-3,-1)	29	2.1334 (0.0659)*	1.0299 (0.0818)*	-1.0600 (0.0725)*	0.0504 (0.297)	-0.0198 (0.4368)	2038.00	1030.70	3744.00
Event day (0)	29	3.3187 (0.1041)	0.1140 (0.2091)	-0.1000 (0.2436)	-0.0140 (0.1011)	-0.0001 (0.3265)	2038.00	1030.70	3744.00
(+1,+3)	29	-2.3480 (0.0184)**	0.2442 (0.168)	-0.3500 (0.0614)*	0.1077 (0.0975)*	-0.0020 (0.9175)	2038.00	1030.70	3744.00
(-3,-1)	29	-0.4482 (0.5084)	1.3434 (0.103)	-0.4533 (0.2632)	-0.8177 (0.3284)	-0.0724 (0.3592)	13308.00	3773.00	50746.00
Event day (0)	29	3.1270 (0.0213)**	0.5228 (0.035)**	-0.0712 (0.4982)	-0.4012 (0.0304)**	-0.0504 (0.1377)	13308.00	3773.00	50746.00
(+1,+3)	29	-1.6720 (0.1362)	0.6581 (0.0593)*	-0.2188 (0.3936)	-0.4176 (0.0077)***	-0.0217 (0.5255)	13308.00	3773.00	50746.00

Panel C Stock Dividend rank by firm size around announcement day

Event Window	Size rank	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Size	0.8542	0.1326	-0.1270	-0.0056	0.0000
	High Size	1.5036	0.7144	-0.2405	-0.4291	-0.0448
	Low - High	-0.6495	-0.5818	0.1135	0.4235	0.0448
	P-value	0.6310	0.4882	0.8773	0.3271	0.3014
Event day (0)	Low Size	2.9421	0.8728	-0.4893	-0.3746	-0.0089
	High Size	3.7121	0.9857	-0.5158	-0.3955	-0.0744
	Low - High	-0.7701	-0.1128	0.0265	0.0208	0.0655
	P-value	0.7205	0.8622	0.9510	0.9624	0.3732
(+1,+3)	Low Size	-1.0887	1.0256	-0.9409	-0.0740	-0.0107
	High Size	1.8457	1.3057	-0.8324	-0.4921	0.0188
	Low - High	-2.9344	-0.2801	-0.1085	0.4180	-0.0294
	P-value	0.0626*	0.7061	0.8767	0.2219	0.6320

Panel D Stock Dividend rank by firm size around ex-dividend day

Event Window	Size rank	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Size	1.1150	0.5627	-0.5050	-0.0576	0.0000
	High Size	-0.0448	1.3434	-0.4533	-0.8177	-0.0724
	Low - High	1.1599	-0.7807	-0.0517	0.7601	0.0724
	P-value	0.0944*	0.3828	0.9120	0.3961	0.3913
Event day (0)	Low Size	0.8897	0.2022	-0.1742	-0.0321	-0.0041
	High Size	3.1202	0.5228	-0.0712	-0.4012	-0.0504
	Low - High	-2.2304	-0.3206	-0.1030	0.3691	0.0463
	P-value	0.1510	0.3527	0.6608	0.0839*	0.1691
(+1,+3)	Low Size	-1.6402	-0.0430	0.0468	0.0000	-0.0038
	High Size	-1.6716	0.6581	-0.1288	-0.4176	-0.0217
	Low - High	0.0315	-0.7011	0.1756	0.4176	0.0179
	P-value	0.9812	0.0695*	0.3572	0.0137**	0.6409

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to firm size rank. Firm sizes are ranked by market size on stock splits announcement day into 3 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table 4.5.3 Percentage cumulative abnormal returns and investors trade imbalance of stock dividend rank by stock dividend factor
Panel A: Stock Dividend rank by stock dividend factor Announcement day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	SDFAC	Min	Max
(-3,-1)	35	0.5853 (0.4262)	0.1243 (0.5118)	-0.0417 (0.8395)	-0.0873 (0.1382)	0.0046 (0.2337)	0.08	0.020	0.10
Event day (0)	35	1.0729 (0.2324)	0.2899 (0.0778)*	-0.1767 (0.289)	-0.0414 (0.3798)	-0.0717 (0.1996)	0.08	0.020	0.10
(+1,+3)	35	0.2793 (0.6867)	0.7552 (0.0919)*	-0.7295 (0.1064)	-0.0059 (0.7709)	-0.0198 (0.3567)	0.08	0.020	0.10
(-3,-1)	24	1.9734 (0.0909)*	0.1501 (0.7578)	0.0201 (0.956)	-0.1623 (0.5026)	-0.0079 (0.4865)	0.24	0.17	0.40
Event day (0)	24	2.4394 (0.1044)	0.0048 (0.9830)	-0.0337 (0.8896)	0.0117 (0.9498)	0.0172 (0.3355)	0.24	0.17	0.40
(+1,+3)	24	-2.0790 (0.1851)	0.9420 (0.1163)	-0.7919 (0.1598)	-0.1246 (0.6048)	-0.0255 (0.3338)	0.24	0.17	0.40
(-3,-1)	27	4.1492 (0.0023)***	1.2129 (0.1605)	-0.8843 (0.2874)	-0.2833 (0.4384)	-0.0452 (0.2656)	0.94	0.50	2.00
Event day (0)	27	8.8874 (<.0001)***	2.7023 (0.0016)***	-1.8320 (0.0088)***	-0.8500 (0.0432)**	-0.0201 (0.4618)	0.94	0.50	2.00
(+1,+3)	27	0.6533 (0.7195)	1.8493 (0.0016)***	-1.4340 (0.0084)***	-0.4849 (0.0944)*	0.0693 (0.2071)	0.94	0.50	2.00

Panel B Stock Dividend rank by stock dividend factor ex-dividend day

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	SDFAC	Min	Max
(-3,-1)	35	0.3403 (0.6052)	0.4845 (0.219)	-0.4663 (0.227)	0.0430 (0.4459)	-0.0611 (0.3291)	0.08	0.020	0.10
Event day (0)	35	1.0956 (0.0356)**	-0.0182 (0.6599)	0.0248 (0.5495)	-0.0034 (0.2568)	-0.0032 (0.3005)	0.08	0.020	0.10
(+1,+3)	35	-1.8290 (0.0182)**	-0.109 (0.0399)**	0.1000 (0.0472)**	0.0146 (0.648)	-0.0056 (0.6055)	0.08	0.020	0.10
(-3,-1)	24	1.8977 (0.0057)***	0.8084 (0.2993)	-1.185 (0.0627)*	0.3777 (0.3776)	-0.0010 (0.9266)	0.24	0.17	0.40
Event day (0)	24	2.7973 (0.0059)***	0.3713 (0.1687)	-0.261 (0.3044)	-0.1073 (0.2400)	-0.0030 (0.4983)	0.24	0.17	0.40
(+1,+3)	24	-1.6070 (0.1151)	0.5703 (0.0652)*	-0.4192 (0.1147)	-0.1552 (0.3714)	0.0041 (0.535)	0.24	0.17	0.40
(-3,-1)	27	0.8383 (0.4912)	1.7893 (0.0169)**	-0.5140 (0.1300)	-1.2520 (0.1236)	-0.0235 (0.5985)	0.94	0.50	2.00
Event day (0)	27	3.9392 (0.1205)	0.5560 (0.0261)**	-0.1198 (0.1099)	-0.3893 (0.0449)**	-0.0469 (0.2168)	0.94	0.50	2.00
(+1,+3)	27	-2.2190 (0.064)*	0.6107 (0.0724)*	-0.3480 (0.1828)	-0.2365 (0.0576)*	-0.0263 (0.5212)	0.94	0.50	2.00

Panel C: Stock Dividend rank by stock dividend factor around Announcement day

Event Window	SD FACTOR	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Factor	0.5853	0.1243	-0.0417	-0.0873	0.0046
	High Factor	4.1492	1.2129	-0.8843	-0.2833	-0.0452
	Low - High	-3.5639	-1.0886	0.8426	0.1961	0.0499
	P-value	0.0110**	0.1832	0.2906	0.5677	0.1864
Event day (0)	Low Factor	1.0729	0.2899	-0.1767	-0.0414	-0.0717
	High Factor	8.8874	2.7023	-1.8322	-0.8500	-0.0201
	Low - High	-7.8145	-2.4125	1.6555	0.8086	-0.0516
	P-value	0.0001***	0.0013***	0.0089***	0.0305**	0.4324
(+1,+3)	Low Factor	0.2793	0.7552	-0.7295	-0.0059	-0.1981
	High Factor	0.6533	1.8493	-1.4337	-0.4849	0.0693
	Low - High	-0.3741	-1.0941	0.7042	0.4789	-0.2674
	P-value	0.8324	0.1112	0.2946	0.0596*	0.0995*

Panel D: Stock Dividend rank by stock dividend factor Ex-dividend day

Event Window	SD FACTOR	Car	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
(-3,-1)	Low Factor	0.3403	0.4845	-0.4663	0.0430	-0.0611
	High Factor	0.8383	1.7893	-0.5140	-1.2518	-0.0235
	Low - High	-0.4980	-1.3048	0.0477	1.2948	-0.0377
	P-value	0.7005	0.0939*	0.9263	0.0744*	0.6354
Event day (0)	Low Factor	1.0956	-0.0182	0.0248	-0.0034	-0.0032
	High Factor	3.9392	0.5560	-0.1198	-0.3893	-0.0469
	Low - High	-2.8436	-0.5742	0.1447	0.3859	0.0437
	P-value	0.2060	0.0159**	0.0821*	0.0344**	0.2279
(+1,+3)	Low Factor	-1.8292	-0.1090	0.1000	0.0146	-0.0056
	High Factor	-2.2189	0.6107	-0.3480	-0.2365	-0.0263
	Low - High	0.3897	-0.7197	0.4479	0.2511	0.0207
	P-value	0.7672	0.0191**	0.0614*	0.0297**	0.5906

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to stock dividend factor rank. Stocks dividend factor are ranked by payout ratio on stock splits announcement day into 3 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table 4.6.1 Percentage cumulative abnormal returns and investors trade imbalance of stock dividend

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	86	8.4987	0.2516	-0.1572	-0.0863	-0.0080
		(<.0001)***	(0.0003)***	(0.0053)***	(0.0395)**	(0.0853)*
Post Event Month (+1,+11)		-2.3460	0.3124	-0.1806	-0.1002	-0.0315
		(0.5358)	(0.0457)**	(0.2459)	(0.3167)	(0.0831)*

This table shows the percentage cumulative abnormal returns (CAR) and trading imbalance of all investor types on stock dividend announcement month and 11 months onward. There are four investors types 1) retails investors 2) foreign investors 3) institution investors. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level

Table 4.6.2 Percentage cumulative abnormal returns and investors trade imbalance of stock dividend rank by firm size

Panel A: stock dividend long term event rank by firm size

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	MCAP	Min	Max
Event Month (0)	28	2.9107	0.2066	-0.1473	-0.0585	-0.0009	612.22	123.900	1023.70
		(0.1264)	(0.0653)*	(0.0716)*	(0.3225)	(0.296)			
Post Event Month (+1,+11)		-8.9420	0.3292	-0.1282	-0.1991	-0.0019			
		(0.1509)	(0.1692)	(0.4966)	(0.1636)	(0.2134)			
Event Month (0)	29	13.5350	0.2656	-0.1836	-0.0743	-0.0077	2038.00	1030.70	3744.00
		(0.0039)***	(0.0391)**	(0.1519)	(0.3093)	(0.3936)			
Post Event Month (+1,+11)		-1.8030	0.2860	-0.2352	0.0125	-0.0633			
		(0.7987)	(0.2355)	(0.3009)	(0.808)	(0.2087)			
Event Month (0)	29	8.8579	0.2809	-0.1405	-0.1251	-0.0153	13308.00	3773.00	50746.00
		(0.0019)***	(0.0233)**	(0.0771)*	(0.1449)	(0.1533)			
Post Event Month (+1,+11)		3.4805	0.3227	-0.1767	-0.1175	-0.0284			
		(0.5969)	(0.3334)	(0.6317)	(0.655)	(0.1788)			

Panel B : Compare stock dividend long term event rank by firm size

Event Window	Size rank	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	Low Size	2.9107	0.2066	-0.1473	-0.0585	-0.0009
	High Size	8.8579	0.2809	-0.1405	-0.1251	-0.0153
	low - High	-5.9472	-0.0743	-0.0068	0.0667	0.0144
	P-value	0.0682*	0.6425	0.9509	0.5172	0.1806
Post Event month (+1,+11)	Low Size	-8.9418	0.3292	-0.1282	-0.1991	-0.0019
	High Size	3.4805	0.3227	-0.1767	-0.1175	-0.0284
	low - High	-12.4224	0.0065	0.0485	-0.0816	0.0265
	P-value	0.1683	0.9872	0.9071	0.7854	0.2129

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to firm size rank. Firm sizes are ranked by market size on stock splits announcement day into 3 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table 4.6.3 Percentage cumulative abnormal returns and investors trade imbalance rank by stock dividend payout ratio

Panel A: stock dividend long term event rank by stock dividend payout ratio

Event Window	Sample size	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.	SDFAC	Min	Max
Event Month (0)	35	3.8350	0.0751	0.0027	-0.0702	-0.0077	0.08	0.020	0.10
		(0.011)**	(0.1131)	(0.9552)	(0.2659)	(0.2891)			
Post Event Month (+1,+11)		-5.8550	0.2110	-0.1042	-0.0630	-0.0438			
		(0.2616)	(0.1895)	(0.5409)	(0.3217)	(0.27)			
Event Month (0)	24	4.5358	0.1565	-0.1824	0.0257	0.0003	0.24	0.17	0.40
		(0.0714)*	(0.1619)	(0.0902)*	(0.5218)	(0.8577)			
Post Event Month (+1,+11)		4.4343	0.3389	-0.3750	0.0413	-0.0052			
		(0.5603)	(0.1788)	(0.1503)	(0.7246)	(0.4099)			
Event Month (0)	27	18.0670	0.5648	-0.3422	-0.2067	-0.0158	0.94	0.50	2.00
		(0.0007)***	(0.0021)***	(0.013)**	(0.0384)**	(0.174)			
Post Event Month (+1,+11)		-3.8230	0.4203	-0.1070	-0.2742	-0.0391			
		(0.6172)	(0.2988)	(0.7838)	(0.3526)	(0.1577)			

Panel B : Compare stock dividend long term event rank by stock dividend payout ratio

Event Window	SD FACTOR	CAR	Retails Imb.	Foreign Imb.	Institution Imb.	Proprietary Imb.
Event Month (0)	Low Factor	3.8501	0.0751	0.0027	-0.0702	-0.0077
	High Factor	18.0669	0.5648	-0.3422	-0.2067	0.0158
	Low - High	-14.2168	-0.4896	0.3449	0.1365	-0.0236
	P-value	0.0021***	0.0024***	0.0078***	0.2156	0.5299
Post Event month (+1,+11)	Low Factor	-5.8550	0.2110	-0.1042	-0.0630	-0.0438
	High Factor	-3.8228	0.4203	-0.1070	-0.2742	-0.0391
	Low - High	-2.0322	-0.2093	0.0028	0.2112	-0.0047
	P-value	0.8189	0.5945	0.9943	0.4264	0.9264

These tables show the percentage cumulative abnormal returns (CAR), trading imbalance of all investor types and compare those according to stock dividend factor rank. Stock dividend factor are ranked by payout ratio on stock splits announcement day into 3 groups. For each row, the first number shows the CAR and trading imbalance. The second in parentheses shows test statistic (p-value). *, ** and *** denote statistical significance at the 10%, 5% and 1% level respectively.

Table 5.7 Findings Summary

The table 5.7 is a summary of our findings from all tables according to hypotheses 1 to 21. If the test statistic is significant from 10% - 1%, we write the results in the table 5.7. For example, CAR is positive and significant 1% on preannouncement or and negative and significant 10% on event day, we write Pre + and Eve. – in the table. For the difference tests, we conclude only significant between 10% - 1% of what we find out in each test.

SHORT TERM CASH DIVDIEND										
HYP.	ANNOUNCEMENT PERIOD					EX-DIVDIEND PERIOD				
	CAR	RETA.	FORE.	INST.	PROP.	CAR	RETA.	FORE.	INST.	PROP.
H1	Pre + Eve. +	Pre + Eve. +	Pre - Eve. -	Pre - Eve. -	Pre -	Pre + Eve. +	Pre + Eve. -	Pre - Eve. +	Eve +	
	Post +	Post +	Post -			Post -		Post +		
H2	Impact: High Yield > Low Yield					Impact: High Yield > Low Yield				
H3	Impact: Low MCAP > High MCAP					Impact: Low MCAP > High MCAP				
H4	Impact: Div. Increase > Div. Decrease									

LONG TERM CASH DIVDIEND					
HYP.	CAR	RETA.	FORE.	INST.	PROP.
H5	Impact: High Yield > Low Yield				
H6	Impact: Low MCAP > High MCAP				
H7	Impact: Div. Increase > Div. Decrease				

SHORT TERM STOCK SPLITS										
HYP.	ANNOUNCEMENT PERIOD					EFFECT PERIOD				
	CAR	RETA.	FORE.	INST.	PROP.	CAR	RETA.	FORE.	INST.	PROP.
H8	Pre + Eve. + Post +	Post +	Eve. -			Pre + Eve. -	Pre + Post +	Pre - Post -		
H9	Impact: Low MCAP > High MCAP					No Impact of Firm size				
H10	Impact: High SPFAC > Low SPFAC					No Impact of SPFAC				

LONG TERM STOCK SPLITS					
HYP.	CAR	RETA.	FORE.	INST.	PROP.
H11	Annc +	Annc +	Annc -		
H12	Impact: Low MCAP > High MCAP				
H13	No Impact of SPFAC				

SHORT TERM STOCK DIVIDEND										
HYP.	ANNOUNCEMENT PERIOD					EX-DIVIDEND PERIOD				
	CAR	RETA.	FORE.	INST.	PROP.	CAR	RETA.	FORE.	INST.	PROP.
H14	Pre + Eve. +	Eve. + Post +	Eve. - Post -	Eve. - Post -		Pre + Eve. + Post -	Pre + Eve. + Post +	Pre - Post -	Eve. - Post -	
H15	No Impact of Firm size					Impact: Low MCAP > High MCAP				
H16	Impact: High SDFAC> Low SDFAC					Impact: High SDFAC> Low SDFAC				

LONG TERM STOCK DIVIDEND					
HYP.	CAR	RETA.	FORE.	INST.	PROP.
H17	Annc. +	Annc. + Post +	Annc. –	Annc. –	Annc. - Post -
H18	No Impact of Firm size				
H19	Impact: High SDFAC> Low SDFAC				

V. CONCLUSION

This paper investigates investors trading behavior around three important corporate actions: cash dividend, stock splits and stock dividend. We observe on both short-term and long-term event study. For short-term event study, we study on 7 days event windows around both announcement day and ex-dividend/effect day. While for long-term event study, we study on an announcement month and following 11 months after an announcement month. The sample of cash dividend, stock dividend and stock splits are obtained from Rights and Benefits data from SET. We analyze twelve years data from January 2000 to July 2011. The final samples consist of 415 listed firms with 2,520 observations of cash dividend, 149 listed firms with 163 observations of stock splits and 54 listed firms with 86 observations of stock dividend.

First, results of cash dividend on short-term study show consistent finding with previous findings. Most of all results show that retail investors, who are considered as low tax bracket investors among others, are chasing cash dividend around announcement day and pre ex-dividend day. Most of CAR around announcement day is positive and significant with positive and significant trade of retail investors. Then, they reverse to sell stocks on and after ex-dividend day while foreign and institutional investors trade in the opposite direction. These imply that retail investors cause dividend capture activities and drive stock price up before ex-dividend day. Proprietary investors are rarely trade around cash dividend announcement and ex-dividend day. We also find that dividend yields are induced more trade activities and CAR. There is a significant different CAR and trade activities between the highest and the lowest yield stocks. We also investigate low firm size effect. Our findings show that low firm sizes effect around announcement day and ex-dividend day. However, low firm size effects are with less magnitude and significant level than yield effects. In terms of change in cash dividend, our results show that market react positively to all cases, or we can say that retail investors chase all cash dividend stocks. Like an expectation, an empirical results show that dividend increase results are greater and more significant than dividend decrease. The different result occurs around announcement day only.

On cash dividend long-term event study, we study as in short-term event study and find that all investors trade imbalance are similar to short-term event study. The first results show positive underreact on high and the highest yield rank, and negative underreact on low yield rank. There are yield effects on an announcement month on both MCAR and investors imbalance while effect only MCAR on post announcement month. For firm size rank, the results show positive underreact on the lowest and negative underreact on medium firm size rank. We find positive and significant differences of MCAR and investors trade imbalance between low and high firm size rank in long-term on both announcement month and post announcement month. In case of cash dividend change, only dividend increase result has positive underreact. There is also significant difference of MCAR between dividend increase and decrease on announcement month and post announcement month.

Second, we find positive and significant CAR around stock split announcement along with positive retail investors' trade imbalance on post stock splits announcement day. Only foreign investors provide liquidity for retail investors on announcement day. On pre effect day, CAR is positive and significant along with retail investors significantly buying cum splits stock. Foreign investors are selling in the period. CAR on effect day is reversed to negative and all investors trade imbalance is low and insignificant. On post effect day, CAR reverses to positive and insignificant while retail and foreign investors are trading significantly in the same direction as pre effect day. We also examine low firm size effect. Our findings show that medium firm size rank has more trade activities and CAR than others rank. There are significant different CAR between low and high size split firms on preannouncement day and announcement day. We further analysis on splits factor effects. Overall results show those investors' trade imbalance increases as split factor increases. As our expectations, high splits factor rank have positive and significant CAR around announcement period and on pre effect day period. Retail investors buy significantly on pre effect day for high split factor rank. The difference test results show only positive significant different of CAR on preannouncement day without significant of investors trade imbalance. This implies that market react differently to different splits factor.

On long-term event study, we find positive and significant CAR and significant investors' trade imbalance on announcement month. We do not find underreact for normal long run stock split. For firm size effect, we only find positive and significant CAR on announcement month for all firm size rank. There is no underreacting for all firm size. In case of splits factor rank, the results is similar to firm size case and we find no underreact in any ranks. We do not find significant different split factor effect in the long run.

Thirdly, short-term stock dividend event study results show that market react positively on preannouncement and on announcement day with positively and significantly trade imbalance of retail investors. Foreign and institution investors provide liquidity in this period. This implies that retail investors drive stock price up till announcement day. While on ex-dividend period, we find significant and positive CAR on pre and ex-dividend day with positive trade imbalance of retail investors. Foreign and institution still provide liquidity on these periods. On post ex-dividend day, CAR reverses to significantly negative. However, retail investors still buy significantly at 5% with significant selling of foreign and institutional investors. By ranking into size of firms, we find more positive and more significant trade imbalance on medium to high firm sizes around announcement day. Retail and foreign investors are trade oppositely in all ranks. On ex-dividend periods, low and medium firm size ranks have positive significant CAR with retail investors positively buying. Foreign and institution investors trade negatively for these periods. The difference test results show that there is a significant different result between low and high firm size rank on CAR and investors trade imbalance on pre effect day. We then test on payout ratio ranks. The results are as our expectations. Market reacts more positively on high payout ratio rank with more positively and significantly trade of retail investors while foreign investors trade oppositely. On

ex-dividend periods, our results show similar CAR pattern in all payout ratio ranks. However, CAR and retail investors trade imbalance in high payout ratio rank have the most magnitude. Test difference between high and low payout ratio rank results show positive significant differences of CAR and invertors trade imbalance on announcement day. On ex-dividend day, differences of CAR are insignificant while we find significantly differences of all investors trade imbalance.

On long-term event study, we find no underreact for CAR and investors trade imbalance in all cases: normal, rank by firm size and payout ratio rank. We only find significant difference of CAR of firm size effect test and significant difference CAR and investors' trade imbalance of stock dividend factor both on announcement month.

By all means, this study provides empirical results of how investors react and stock price movements on 3 important events for short-term and long-term. This research shows how investors' trade behaviors are for different event and factors. By the way, this paper has room to improve. All of our samples in this study are limited by investors trading type periods in January 1999 to June 2012. Some of our samples, such as stock dividend, are significantly increase on post study period, 2012 to 2013. Further study may find more significant results.

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APPENDIX

Sample Selection

Panel A. Cash Dividend Sample Selection	**Excluded**	**Observations**
Total XD For all securities between 1/4/1976 -26/2/2013	0	10466
Exclude Cancel data	19	10447
Exclude non common stocks data	1110	9337
Setday for study period Matched (7/1/2000-26/7/2011)	4805	4532
Exclude securities with duplicated announcement or ex-dividend day	8	4524
Adjust securities with duplicated announcement and ex-dividend day	10	4514
Exclude Switch announcement and ex-dividend day	1	4513
Exclude overlap announcement and ex-dividend event windows	1134	3379
Exclude overlap XR,XN,SD within event windows	301	3078
Prepared Clean CD		3078
Investors Types day trade and daily return Matched (-3,+3)	265	2813
Investors Types Monthly trade and Monthly return Matched (0,+11)	293	2520
Final Short and Long-term CD Samples (Rank by firm size and yield)		2520
Final Short and Long-term Increase Cash Dividend Samples		1178
Final Short and Long-term Decrease Cash Dividend Samples		867
Final Short and Long-term No Change in Cash Dividend Samples		390
**85 out of 2520 events of cash dividend change are the first time XD		

Panel B. Stock splits Sample Selection	**Excluded**	**Observations**
Total Par Change For all securities between 1/4/1976 -26/2/2013	0	4891
Exclude announcement day and Effect day missing data	2840	2051
Exclude non common stocks data	1523	528
Announcement day, effect day and setday data Matched	1	527
Setday for study period Matched (7/1/2000-26/7/2011)	176	351
Select only Splits Par (the rests are par reduced and reversed split)	103	248
Exclude duplicate and overlap announcement and effect event windows	6	241
Prepared SP		241
Investors Types day trade and daily return Matched (-3,+3)	55	186
Investors Types Monthly trade and Monthly return Matched (0,+11)	23	163
Final Short and Long-term Clean CD Samples (Rank by firm size and split factor)		163

Panel C. Stock Dividend Sample Selection	**Excluded**	**Observations**
Total Stock dividends For all securities between 1/4/1976 -26/2/2013	0	187
Exclude non common stocks data	5	182
Setday for study period Matched (7/1/2000-26/7/2011)	72	110
Exclude securities with payout ratio = 0	1	109
Exclude 0securities with duplicated ex-dividend day and 1 error data	2	107
Prepared SD		107
Investors Types day trade and daily return Matched (-3,+3)	16	91
Investors Types Monthly trade and Monthly return Matched (0,+11)	5	86
Final Short and Long-term Clean CD Samples (Rank by firm size and payout factor)		86