

DIVIDEND POLICY AND STOCK PRICE PERFORMANCE: EVIDENCE  
FROM THE KAZAKHSTAN STOCK EXCHANGE

BY

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THESIS

Submitted in partial fulfillment of the requirements

for the degree of Master of Science in Finance

in the Graduate School of Business

Nazarbayev University, 2024

Astana, Kazakhstan

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## Abstract

Theoretically, the publication of dividends does not have any impact on the financial position of the company, since capitalization and resources remain unchanged. Nevertheless, world practice shows that the market reacts to stock publications about the payment of dividends. This study performed an analysis of the impact of the publication of payments and the payment of dividends by Kazakhstani companies on the KASE and LSE trading exchanges. The study found that for financial companies an announcement of dividend increase positively impacts the stock prices and investors experience positive abnormal returns. However, for non-financial companies increase in the amount of dividends lead to negative abnormal returns which means drop in the price of stocks. Overall the market reacts negatively to the announcement of dividends.

*Keywords: Event study, Dividend announcement, Event Window, Estimation Window, Abnormal return, Market Reaction, Mean-Adjusted Return, Market Adjusted Return, OLS.*

## **I. Introduction**

Kazakhstan is a small but rapidly developing market in Central Asia. Since 1991, the first Kazakhstan stock exchange has been established in Kazakhstan, which was named KASE in 1993 (KASE.kz). This marked the beginning of organized securities trading in the country. Since then, many reforms have been carried out related to modernization of reforms, attracting investments and increasing transparency. This is primarily due to the liberalization of the financial system, the creation of a regulatory framework under the National Bank of Kazakhstan and efforts to integrate with global financial markets. Since then, important events for the industry have been the introduction of electronic trading systems, corporate governance practices, and incentives for the corporation to launch an initial public offering. These measures are designed to improve the efficiency of the market as well as to increase investor confidence. Despite such changes and modernizations, the stock market in Kazakhstan is not transparent enough and the effectiveness of the market is often questioned. In addition, the Kazakh market has not been studied in practice, there are no reliable studies that would talk about the market's reaction to any announcements of payments or other significant events. Thus, the purpose of this thesis is to study the market reaction to the announcement of dividends.

Given the fact that the company's managers have insider information about what awaits the company in the future based on indicators and figures, company representatives can use various methods to notify their shareholders or the market. Two of the most accessible and common notification methods are income and dividend data. Information on dividend payments is more informative than figures on the company's income, since the decision on the payment and amount of dividends is made after the board of directors, besides, comparing the amount of dividends with previous years, you can get more signal information than from income or profit data. Therefore, if the value of the dividend data is confirmed, then this will necessarily be reflected in changes in stock prices after the public announcement. But nevertheless, not everything can be so unambiguous, since dividend and income announcements are often linked. Therefore, before making an analysis, it is necessary to determine which of these information affects the market.

## **II. Literature Review**

The relationship between dividend policy and stock price has always been a relevant topic for scientific research, which is based on several important fundamental theories.

Dividend Irrelevance theory. According to Miller and Modigliani (1961), in perfect capital markets dividend policy has no effect on share prices or the firm's value. By perfect market they mean an absence of taxes, transaction costs or information asymmetry. However, in real life situations these conditions are not met, especially in emerging markets like Kazakhstan.

Agency theory. Founders of this theory Jensen and Meckling (1976) suggested that dividend payouts help to solve conflicts between managers and shareholders. Regular payment of dividends reduces the possibility of using free cash flow for personal purposes. In addition, it forces companies to monitor the market and look for an external source of financing.

Signaling Theory. According to Bhattacharya (1979), dividend announcements can signal future prospects in terms of manager's perspectives. In other words, an increase in the amount of dividends could signal management's confidence in future financial success of the company, whereas decreasing dividends could signal a pessimistic approach.

### **III. Testable hypotheses**

#### **Dividend Announcements Impact on Stock Price**

**Hypothesis I ( $H_1$ ):** Dividend announcements have a significant positive impact on stock prices of companies listed on the KASE.

**Null Hypothesis ( $H_0$ ):** Dividend announcements do not significantly impact the stock prices of companies listed on the KASE.

#### **Market Reaction to Changes in Dividend Policy**

**Hypothesis II ( $H_2$ ):** Changes in dividend policy (increases or decreases in the amount of dividends) significantly affect stock price performance on the KASE.

**Null Hypothesis ( $H_0$ ):** Changes in dividend policy do not significantly affect stock price performance on the KASE.

### **IV. Data Preparation**

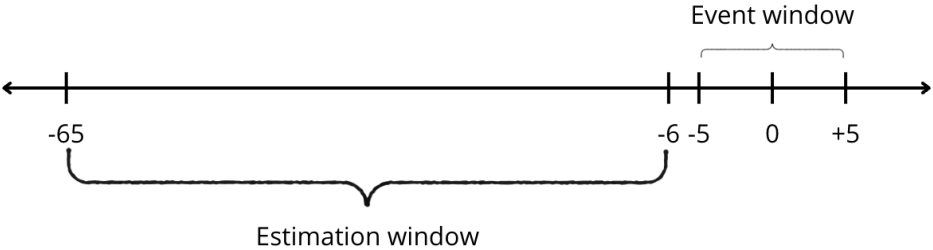
To complete the research, the data was taken from the following sources: Bloomberg, KASE. Bloomberg has all the necessary information about the shares and provides access to daily prices, dividend amounts, as well as financial indicators of the company. For the research, I received the following data for each of the companies: Stock prices from the IPO period with dates, the dividend amounts,

KASE market index. Moreover, for additional research financial indicators for each company were taken from the consolidated financial statements.

## V. Methodology

### Event Study Framework

This thesis work is based on the event study methodology in order to research the stock market's reaction to the announcements of dividends by companies and firms that are on the Kazakhstan Stock Exchange (KASE). The methodology concentrates on identifying the differences in stock returns from their expected values during a specific predefined **event window** while also evaluating how their announcements affect market behavior. The announcement day is specified as a Day 0 and the event window lasts 11 days from five days before (-5) and five days after (+5) the announcement. The anticipation of the market as well as its immediate response and any adjustments that may be delayed to the announcement are caught within this timeframe.



*Figure 1. Estimation and event window*

Moreover, in order to check for robustness of expected return calculations the **estimation window** period of Day -65 to Day -6 was used. This time window does not include the event window (-5 to +5), which means the influence of the announcement is not considered and it has no influence for the estimation of normal returns. The reason why this estimation window was used instead of the initial 120 days is that since some organizations have quarterly payments, therefore, the announcement days could overlap. In other words, the 120-day period included days of announcements of payments from past events.

In order to measure expected normal returns, three models are employed in this research: **Mean Adjusted Returns (MAR)**, **Market Adjusted Returns (MKAR)** and the **Ordinary Least Squares (OLS)** Market Model. Each of these models is suitable for the estimation of expected returns and offers complementary perspectives on market performance. The Abnormal Returns (AR) are computed by computing the difference between actual returns and their expected values. Such a systematic approach provides a reliable and robustness of the signalling effects of dividends and the effectiveness of the KASE market.

**Abnormal Returns and Cumulative Abnormal Returns**

For each model the Abnormal Return ( $A_i$ ) is computed as the difference between the actual returns and the expected returns:

- **The MAR** model assumptions are that expected returns are equal to the average return of the stock during the prespecified estimation window. It is calculated as:

$$A_{i,t} = R_{i,t} - \underline{R_i}$$

where  $\underline{R_i}$  is the arithmetic mean of stock  $i$ 's daily returns from Day -65 to Day -6.

- **MKAR** assumes that expected returns are equivalent to the return of the market index (KASE index) on the same day. It is calculated as:

$$A_{i,t} = R_{i,t} - R_{m,t}$$

where  $R_{m,t}$  is the return on the KASE index based on the sample companies.

- **OLS Market Model** adjusts for market-wide movements and stock-specific sensitivities, using a linear regression of stock returns against market returns during the estimation window:

$$A_{i,t} = R_{i,t} - (\alpha_i + \beta_i R_{m,t})$$

where Alpha and Beta are the intercept and slope coefficients derived from the regression of stock *i*'s returns on the KASE index. This method is based on Campbell, Lo and MacKinley (1997) Standard Event Study Technique.

The abnormal returns for each event and day in the event window are aggregated across all events to compute the **average abnormal returns (AAR)**:

$$AAR_t = \frac{1}{N_i} \sum_{i=1}^N A_{i,t}$$

where *N* is the number of events. The **cumulative abnormal returns (CAAR)** are then calculated as the sum of AARs over a specified time within the event window, capturing the overall impact of announcements:

$$CAAR_t = \sum_{t=t_1}^{t_2} AAR_t$$

### Segmentation of Events

To capture heterogeneity in market reactions, segmentation of the data into categories has been decided:

- **All events (79 events total, 58 dividend increase events, 21 dividend decrease events):** Provides an overall picture of market responses;

- **Financial companies including Halyk Bank, Kaspi Bank (21 events total, 19 dividend increase events, 2 dividend decrease events):** Analyzes the specific dynamics of the financial sector. The Bank CenterCredit (BCC JSC) was eliminated from the banks as it has not paid any dividend payments according to Bloomberg;
- **Non-financial companies including KazTransOil, KCELL, KEGOC, KazMunayGas, KazakhTelecom, KazAtomProm (58 events total, 39 dividend increase events, 19 dividend decrease events):** Focuses on reactions within other than banks;
- **Dividend increase events:** Explores market reactions to announcements of higher payouts of dividends;
- **Dividend decrease events:** Examines the impact of reductions in payouts of dividends.

### **Event Window Analysis**

The event window spans 11 days, from Day -5 to Day +5. This window is divided into:

- **Pre-announcement period (-5 to -1):** Captures potential information leakage or speculative trading.
- **Announcement day (0):** Assesses the immediate market response.

- **Post-announcement period (+1 to +5):** Evaluates delayed market reactions and any lasting effects.

Day 0 serves as the focal point which represents the actual announcement of dividend decisions.

### **Key Metrics and Interpretation**

Daily t-statistics accompany the analysis's ARs and CAARs, yielding results for each day in the event window. Positive ARs show that the market reacts favorably, but negative ARs reveal investor disappointment or skepticism. The announcement's effect is indicated by CAARs, which show whether the response lasts or fades quickly.

In order to guarantee that the results are significant and reliable three estimation models MAR, MKAR and OLS were used. MAR looks at stock-specific historical performance. MKAR considers broader market trends and OLS examines stock-specific sensitivities to market movements.

Analyzing financial, and non-financial industries shows investor behavior. It allows for a detailed examination of their actions. Using several models and strong statistical tests, researchers gain reliable understandings into how dividends affect signals and the efficiency of the KASE market.

## VI. Results

### VI.I Overall results for financial and non-financial companies combined

| Day                                   | MAR      |          |          |          | MKAR     |          |          |          | OLS      |          |          |         |          |
|---------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|----------|
|                                       | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t       |          |
| All Companies<br>(79 events in total) | -5       | -0,0014  | -0,64404 | -0,01588 | -2,20158 | -0,0004  | -0,1871  | -0,00465 | -0,66154 | 8,42E-05 | 0,048524 | -0,0055 | -0,95499 |
|                                       | -4       | -0,00499 | -2,29457 |          |          | -0,0038  | -1,79426 |          |          | -0,00336 | -1,93824 |         |          |
|                                       | -3       | 0,002631 | 1,209264 |          |          | 0,002339 | 1,103228 |          |          | 0,003806 | 2,19299  |         |          |
|                                       | -2       | -0,0031  | -1,42412 |          |          | -0,00111 | -0,52216 |          |          | -0,00201 | -1,15938 |         |          |
|                                       | -1       | -0,0004  | -0,18434 |          |          | -0,00037 | -0,17579 |          |          | -0,00057 | -0,33001 |         |          |
|                                       | 0        | -0,00403 | -1,85341 |          |          | -0,00267 | -1,26116 |          |          | -0,00302 | -1,74212 |         |          |
|                                       | 1        | 0,009127 | 4,19571  |          |          | 0,009165 | 4,322431 |          |          | 0,008111 | 4,673149 |         |          |
|                                       | 2        | -0,00459 | -2,10927 |          |          | -0,00334 | -1,57472 |          |          | -0,00348 | -2,00656 |         |          |
|                                       | 3        | 0,00023  | 0,105528 |          |          | 0,001277 | 0,602201 |          |          | 0,001332 | 0,767557 |         |          |
|                                       | 4        | -0,00163 | -0,74883 |          |          | -0,00056 | -0,26508 |          |          | -0,00067 | -0,38693 |         |          |
| 5                                     | -0,00773 | -3,55373 | -0,00518 | -2,44169 | -0,0057  | -3,28633 |          |          |          |          |          |         |          |

Table 1. Results for all companies

Table 1 shows the results of the models MAR, MKAR and OLS for financial and non-financial companies combined. Overall, 79 dividend-related announcements were analyzed (**58 dividend increase events, 21 dividend decrease events**). In order to check for significance of the obtained values we compute the t-values.

#### Pre-Announcement Period (-5 to -1)

From the results of the pre-announcement period limited and inconsistent activity was observed. The abnormal return shows fluctuating results across all 3 models. In the perspective of the MAR model, statistically significant values show that on Day -4  $AR = -0.00499$ , ( $t = -2.29$ ) suggesting potential speculation in the

market or negative expectations of investors and shareholders of unfavorable news. The MKAR model also shows similar results,  $AR = -0.0038$  ( $t = -1.79$ ) on Day -4, but the t-value insists on 10% significance level. However, from the results of the OLS model on Day -3  $AR = 0.003806$  indicating positive speculations before the announcement day. Overall, for the pre-announcement period the cumulative abnormal returns (CAAR) remains negative but statistically insignificant across all 3 models which means lack of substantial market-wide response.

The sporadic value of ARs in the period leading up to the announcement may indicate restrained speculative activity or limited information leakage prior to the announcement. Negative returns during this period may also reflect cautious investor sentiment as market participants await more specific information.

### **Announcement Day (Day 0)**

On the day of the announcement of dividend payments (Day 0), the market shows a moderately negative reaction. According to the MAR model, the AR is negative ( $AR = -0.00403$ ,  $t = -1.85$ ), only significant at 10% significance level. The MKAR model also reports about negative AR ( $-0.00267$ ,  $t=-1.26$ ), but statistically insignificant numbers. However, the OLS model captures a more significant negative market reaction with  $AR = -0.00302$  and t-statistics ( $-1.74$ ), which means the values are statistically significant at 10% level. CAAR values on the

announcement day remain negative for all 3 models, but MAR model shows statistically significant values reporting marginally unfavorable market sentiment (CAAR = -0.01588,  $t = -2.20$ ). These figures may mean that the announcements of payments did not meet market expectations or caused uncertainty, which led to a decrease in investor enthusiasm.

### **Post-Announcement Period (+1 to +5)**

After the announcement of dividends, particularly on Day +1, we observe positive reaction from the market as it follows from the MAR model (AR = 0.00912,  $t = 4.20$ ) with strong statistical significance values. Also, the numbers from the MKAR and OLS models also support post-announcement optimism as positive values with significance (t-values with 4.32 and 4.67 accordingly) were observed. Such a reaction may indicate a delayed positive reevaluation of these announcements by the market.

As we continue, we see that optimism shifts to a more pessimistic view, with ARs turning negative from Day +2 to Day +5 after Day +1. By Day 5, all three models show large losses. They report important negative abnormal returns. The MAR model shows AR at -0.00773 ( $t = -3.55$ ), while the MKAR and OLS models display t-values of -2.44 and -3.29 with their reported ARs of -0.00518 and -0.0057, respectively. A reassessment of the announcements is suggested by negative

dynamics, which may be driven by emerging concerns, or by the desire to secure profits.

| Day  | MAR      |          |          |          | MKAR     |          |          |          | OLS      |          |          |          |          |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|  | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        |          |
| All Companies<br>DIVIDEND INCREASE<br>(58 events in total) | -5       | -0,0042  | -1,71201 | -0,02437 | -2,99409 | -0,00247 | -1,07872 | -0,00518 | -0,68234 | -0,00219 | -1,13189 | -0,01176 | -1,83186 |
|  | -4       | -0,0071  | -2,89231 |          |          | -0,00451 | -1,97086 |          |          | -0,00481 | -2,48361 |          |          |
|  | -3       | 0,00514  | 2,094582 |          |          | 0,005089 | 2,224341 |          |          | 0,006007 | 3,103072 |          |          |
|  | -2       | -0,00278 | -1,13323 |          |          | 3,6E-05  | 0,015725 |          |          | -0,00131 | -0,67464 |          |          |
|  | -1       | -0,00297 | -1,21179 |          |          | -0,00134 | -0,58729 |          |          | -0,00227 | -1,17021 |          |          |
|  | 0        | -0,00669 | -2,72707 |          |          | -0,00536 | -2,34362 |          |          | -0,00591 | -3,05232 |          |          |
|  | 1        | 0,010493 | 4,275967 |          |          | 0,0117   | 5,113833 |          |          | 0,009784 | 5,054694 |          |          |
|  | 2        | -0,0036  | -1,46649 |          |          | -0,00156 | -0,68103 |          |          | -0,00225 | -1,16377 |          |          |
|  | 3        | 0,000219 | 0,089087 |          |          | 0,001605 | 0,701542 |          |          | 0,000538 | 0,277698 |          |          |
|  | 4        | -0,00158 | -0,64491 |          |          | 0,000137 | 0,05992  |          |          | -0,00026 | -0,13237 |          |          |
| 5  | -0,01129 | -4,6021  | -0,0085  | -3,71689 | -0,0091  | -4,70223 |          |          |          |          |          |          |          |
| All Companies<br>DIVIDEND DECREASE<br>(21 events in total) | -5       | 0,006332 | 1,394262 | 0,007547 | 0,50099  | 0,005324 | 1,376423 | -0,0032  | -0,24954 | 0,006368 | 1,846588 | 0,0118   | 1,031677 |
|  | -4       | 0,000825 | 0,181557 |          |          | -0,00186 | -0,48043 |          |          | 0,000622 | 0,180396 |          |          |
|  | -3       | -0,0043  | -0,94671 |          |          | -0,00526 | -1,35872 |          |          | -0,00227 | -0,65838 |          |          |
|  | -2       | -0,00397 | -0,87499 |          |          | -0,00426 | -1,10249 |          |          | -0,00396 | -1,14928 |          |          |
|  | -1       | 0,006704 | 1,476119 |          |          | 0,002309 | 0,596915 |          |          | 0,004101 | 1,189278 |          |          |
|  | 0        | 0,003315 | 0,729879 |          |          | 0,00475  | 1,227913 |          |          | 0,004943 | 1,433364 |          |          |
|  | 1        | 0,005356 | 1,179257 |          |          | 0,002164 | 0,55949  |          |          | 0,00349  | 1,011999 |          |          |
|  | 2        | -0,00732 | -1,61223 |          |          | -0,00826 | -2,13481 |          |          | -0,00688 | -1,99504 |          |          |
|  | 3        | 0,00026  | 0,057206 |          |          | 0,00037  | 0,095782 |          |          | 0,003527 | 1,022775 |          |          |
|  | 4        | -0,00176 | -0,38692 |          |          | -0,00249 | -0,64454 |          |          | -0,00182 | -0,5274  |          |          |
| 5  | 0,002108 | 0,46417  | 0,004011 | 1,03685  | 0,003681 | 1,067381 |          |          |          |          |          |          |          |

Table 2. Dividend Increase and decrease results for all companies

The table analyzes events by differentiating between dividend increases, and decreases, including 58 announcements of dividend increases and 21 announcements of dividend decreases. In analyzing the data, the same methodologies were used including many instances of Mean Adjusted Returns (MAR), Market Adjusted Returns (MKAR) and the Ordinary Least Squares (OLS) Market Model, which all adjusted with the previous analysis. Also, for both cases of dividend increase and decrease the same event window was used.

## **Dividend Increase Events (58 Events)**

### **Pre-Announcement Period (-5 to -1)**

During the pre-announcement period for dividend increase events we can observe statistically significant market activity on select days. All 3 models during the Day -4 exhibit negative abnormal returns, which is statistically significant. For example, the MAR shows  $AR = -0.0071$  with t-value of  $-2.89$ , whereas the MKAR model's  $AR = -0.00451$  ( $t = -1.97$ ) and the OLS  $AR = -0.00481$  ( $t = -2.48$ ), this probably indicates market speculation or the expectation of announcements. However, the next day (Day -3) we can observe a different pattern; all 3 models exhibit positive AR with significant t-values. Such a change in abnormal return could reflect mixed investor sentiment and potential preemptive adjustments by market participants.

### **Announcement Day (Day 0)**

On the announcement day, we can observe negative reactions from the market to dividend increase announcements. Under the MAR,  $AR = -0.00669$  ( $t = -2.73$ ), indicating strong statistical significance. The MKAR and OLS models also report a similar trend with  $AR = -0.00536$  and  $AR = -0.00591$  ( $t = -2.34$  and  $t = -3.05$ , accordingly). These negative AR values despite the increase in dividend may

suggest that the firm or the companies failed to meet the investor expectations or there were problems with uncertainties regarding their implications for firm value.

### **Post-Announcement Period (+1 to +5)**

After Day 0, from the post-announcement period we can observe significant positive abnormal returns on Day +1. The MAR methodology shows  $AR = 0.01049$  ( $t = 4.28$ ), which reflects strong investor optimism. The MKAR and the OLS methods also support the pattern from the MAR method, in particular  $AR = 0.01117$  with t-value of 5.11 and  $AR = 0.00978$  with t-value of 5.05 accordingly. However, from Day +2 till Day +5 we observe an opposite scenario in which this optimism quickly dissipates, as ARs turn negative. On Day +5, the MAR model reports significant negative abnormal returns ( $AR = -0.01129$ ,  $t = -4.60$ ), which trend is also supported by MKAR ( $AR = -0.0085$ ,  $t = -3.72$ ) and OLS ( $AR = -0.0091$ ,  $t = -4.70$ ).

According to negative and statistically significant CAAR values (MAR:  $-0.02437$  with  $t = -2.99$  and 10% OLS CAAR =  $-0.01176$ ,  $t = 1.83$ ), increase in dividends lead to negative abnormal returns.

### **Dividend Decrease Events (21 Events)**

#### **Pre-Announcement Period (-5 to -1) and the Announcement Day (Day 0)**

From the Dividend Decrease announcements we observe only limited statistically significant values. On day 0 of the announcement of the dividend reduction, according to the table, the return reacts with a restrained increase, but in fact the numbers are not significant. For example, the MAR methodology shows that  $AR = 0.00670$  ( $t = 1.48$ ) on Day -1 and MKAR reports an equally modest response ( $AR = 0.00536$ ,  $t = 1.23$ ) on Day 0. The figures may be insignificant due to the low number of events.

### **Post-Announcement Period (+1 to +5)**

According to table 2, during the period of post-announcement 2 significant values were observed. Mainly, Day +2 results show that both MKAR and OLS models exhibit negative AR's, -0.00826 and -0.00688 accordingly ( $t = -2.134$  and  $t = -1.995$ ). These results mean that after dividend decrease announcements the market reacts negatively and shows post-announcement pessimism. Next days do not show a consistent pattern of significance across all the models.

From the CAAR values we observe that for dividend decrease cases there are no significant values and the market remains negligible during the event window. According to the MAR,  $CAAR = 0.007547$  ( $t = 0.50$ ), similar results were observed for MKAR and OLS models too.

## **Overall analysis**

The announcements of the dividends overall according to the results have a negative impact on share prices as negative abnormal returns were observed based on the results of the CAAR (MAR: -0.01588 with t-values of -2.20). Despite the fact that a large positive abnormal return was noticed on Day +1, in the following days they acquire a negative abnormal return.

According to the results of financial and non-financial companies combined, from the market reaction to the increase and decrease in dividends we observe the following picture. In the case of an increase in dividends, initially we observe a positive abnormal return, but eventually we get a negative cumulative abnormal return. Therefore it can be concluded that investors view these events unfavorably. In the case of a decrease in dividends, based on the results of Day +2, we can conclude that these announcements have a negative impact on securities holders and investors, as we observe a negative abnormal return.

## V.II Non-financial companies results

| Day   | MAR      |          |          |          | MKAR     |          |          |          | OLS      |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|   | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        |          |
| Non-Financial Companies<br>(58 events in total) | -5       | -0,00194 | -0,72607 |          |          | -0,00187 | -0,67629 |          |          | -0,00098 | -0,4454  |          |          |
|   | -4       | -0,00237 | -0,88482 |          |          | -0,0022  | -0,79683 |          |          | -0,00178 | -0,8064  |          |          |
|   | -3       | 0,00248  | 0,927488 |          |          | 0,001861 | 0,67321  |          |          | 0,003712 | 1,679451 |          |          |
|   | -2       | -0,00239 | -0,89462 |          |          | -0,00045 | -0,16127 |          |          | -0,00125 | -0,56604 |          |          |
|   | -1       | -0,00151 | -0,56512 |          |          | -0,0014  | -0,50728 |          |          | -0,00157 | -0,71226 |          |          |
|   | 0        | -0,00744 | -2,7835  | -0,02625 | -2,95937 | -0,00522 | -1,88968 | -0,01487 | -1,62166 | -0,00533 | -2,40917 | -0,01475 | -2,01177 |
|   | 1        | 0,012355 | 4,620221 |          |          | 0,012652 | 4,577437 |          |          | 0,011028 | 4,988884 |          |          |
|   | 2        | -0,00701 | -2,6208  |          |          | -0,00564 | -2,04115 |          |          | -0,00594 | -2,68567 |          |          |
|   | 3        | -0,00032 | -0,11881 |          |          | 0,001034 | 0,374091 |          |          | 0,001389 | 0,628196 |          |          |
|   | 4        | -0,00445 | -1,66447 |          |          | -0,00332 | -1,19991 |          |          | -0,00369 | -1,67058 |          |          |
| 5   | -0,01365 | -5,10462 |          |          | -0,01031 | -3,73077 |          |          | -0,01033 | -4,6733  |          |          |          |

*Table 3. Results for non-financial companies*

Table 3 presents event study results for non-financial companies, mainly, KazTransOil, KCELL, KEGOC, KazMunayGas, KazakhTelecom, KazAtomProm. Overall the results were drawn from 58 events. From the table we can observe statistically significant results on and after Day 0, however the results of pre-announcement are not statistically significant.

### **Pre-Announcement Period (-5 to -1)**

According to the results of the pre-announcement period, there are no statistically significant values. The total value that the statistics for the day take into account is Day -3 according to the OLS methodology: (AR = 0.00371, t = 1.68), which indicates insignificant market expectations for this subgroup of companies.

### **Announcement Day (Day 0)**

During the announcement day we observe statistically significant results under all three models. According to the MAR, the abnormal return equals -0.00744 with t-value of -2.78, MKAR shows AR= -0.00522 (t = -1.89), whereas OLS models also confirms negative AR of -0.00533 (t = -2.41). From the results above, we can conclude that on the announcement day the market reacted negatively, non-financial firms failed to meet market expectations.

### **Post-Announcement Period (+1 to +5)**

After the announcement day we observe mixed signals from the market as according to table 3, initially the market shows positive reaction on Day +1 which is followed by negative trend afterwards. Under MAR, Day +1 results show positive abnormal return with high significance (AR = 0.01235, t = 4.62), and this result is supported by other two methods: MKAR (AR = 0.01265, t = 4.58) and OLS (AR = 0.01102, t = 4.99).

However, from Day +2 onwards the result became significantly negative. Day +2 and Day +5 show that abnormal returns of stocks did not meet the expectations of the market. MAR reports AR = -0.01365 (t = -5.10), reflecting a serious decline in investor sentiment. The MKAR and OLS models also confirm this trend, with ARs of -0.01031 (t = -3.73) and -0.01033 (t = -4.67), respectively. These results

indicate a reassessment of statements, because investors ultimately perceive them as unfavorable.

According to the CAAR values, they confirm the negative trend of abnormal returns. Under the MAR model CAAR = 0.02625 with t-value of -2.95937. Moreover, under the OLS CAAR = -0.01475 with t-value of -2.01177. The cumulative negative abnormal returns confirm the limited long-term attractiveness of these dividend announcements to the shareholders and investors in non-financial companies.

| Day  | MAR      |          |          |          | MKAR     |          |          |          | OLS      |          |          |          |          |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|  | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        |          |
| Non-Financial Companies<br>DIVIDEND INCREASE<br>(39 events in total) | -5       | -0,00624 | -1,99808 | -0,04202 | -4,05983 | -0,00475 | -1,44778 | -0,02062 | -1,89614 | -0,00443 | -1,65214 | -0,0276  | -3,10389 |
|  | -4       | -0,00377 | -1,20772 |          |          | -0,00294 | -0,89552 |          |          | -0,00321 | -1,1972  |          |          |
|  | -3       | 0,00491  | 1,573289 |          |          | 0,004237 | 1,292197 |          |          | 0,005574 | 2,078948 |          |          |
|  | -2       | -0,00226 | -0,72442 |          |          | 0,001407 | 0,429174 |          |          | -0,00022 | -0,08237 |          |          |
|  | -1       | -0,00451 | -1,44433 |          |          | -0,00234 | -0,71346 |          |          | -0,00338 | -1,25891 |          |          |
|  | 0        | -0,0129  | -4,13224 |          |          | -0,01028 | -3,13576 |          |          | -0,01056 | -3,93714 |          |          |
|  | 1        | 0,015586 | 4,994253 |          |          | 0,017723 | 5,404856 |          |          | 0,014656 | 5,465915 |          |          |
|  | 2        | -0,00611 | -1,95779 |          |          | -0,00383 | -1,16833 |          |          | -0,00486 | -1,81239 |          |          |
|  | 3        | -0,00062 | -0,19948 |          |          | 0,0004   | 0,122064 |          |          | -0,00028 | -0,10266 |          |          |
|  | 4        | -0,00531 | -1,7016  |          |          | -0,00375 | -1,14272 |          |          | -0,00441 | -1,6461  |          |          |
| 5  | -0,02081 | -6,66679 | -0,01651 | -5,03351 | -0,01649 | -6,15038 |          |          |          |          |          |          |          |
| Non-Financial Companies<br>DIVIDEND DECREASE<br>(19 events in total) | -5       | 0,006873 | 1,401382 | 0,006133 | 0,377037 | 0,004039 | 0,976835 | -0,00305 | -0,22256 | 0,006088 | 1,587816 | 0,011635 | 0,914986 |
|  | -4       | 0,000514 | 0,104739 |          |          | -0,0007  | -0,16825 |          |          | 0,001148 | 0,299339 |          |          |
|  | -3       | -0,00251 | -0,51123 |          |          | -0,00302 | -0,72984 |          |          | -0,00011 | -0,02853 |          |          |
|  | -2       | -0,00266 | -0,54288 |          |          | -0,00425 | -1,02784 |          |          | -0,00337 | -0,87801 |          |          |
|  | -1       | 0,004639 | 0,945971 |          |          | 0,000522 | 0,126253 |          |          | 0,002123 | 0,55362  |          |          |
|  | 0        | 0,003749 | 0,76437  |          |          | 0,005162 | 1,248617 |          |          | 0,005413 | 1,411726 |          |          |
|  | 1        | 0,005723 | 1,166978 |          |          | 0,002243 | 0,542477 |          |          | 0,003581 | 0,934058 |          |          |
|  | 2        | -0,00885 | -1,80517 |          |          | -0,00936 | -2,26356 |          |          | -0,00815 | -2,12512 |          |          |
|  | 3        | 0,000308 | 0,062808 |          |          | 0,002335 | 0,564733 |          |          | 0,004804 | 1,25302  |          |          |
|  | 4        | -0,00269 | -0,54793 |          |          | -0,00243 | -0,58843 |          |          | -0,00221 | -0,57723 |          |          |
| 5  | 0,001037 | 0,21145  | 0,002401 | 0,580862 | 0,002316 | 0,603966 |          |          |          |          |          |          |          |

Table 4. Dividend increase or decrease results for non-financial companies

Table 4 shows results of dividend increase and dividend decrease announcements for non-financial companies. Overall 58 events were included and

divided into dividend increase events (39 in total) and dividend decrease events (19 in total).

### **Non-Financial Companies – Dividend Increase Events (39 Events)**

#### **Pre-Announcement Period (-5 to -1)**

According to the results of the pre-announcement period we can observe very limited significant results. MAR shows that at Day -5 AR of -0.00624 ( $t = -1.99$ ). OLS also confirms this trend but with 10% of significance level (AR = -0.00443). However, according to the OLS at Day -3 AR = 0.005574, with t-value of 2.0789 which is an exceptional case as expected that pre-announcement AR values are negative.

#### **Announcement Day (Day 0)**

On the announcement day, according to Table 4 the market reacts strongly negatively. The methodology of MAR shows that AR is -0.0129 ( $t = -4.13$ ), which indicates significant investor disappointment and expectations are not met. MKAR shows a similar trend with an AR value of -0.01028 ( $t = -3.14$ ), while OLS also confirms with AR of -0.01056 ( $t = -3.94$ ). These results suggest that the dividend increase announcements did not meet market and investors expectations, leading to significant declines in stock prices.

### **Post-Announcement Period (+1 to +5)**

The period after the publication of the announcement began with a noticeable rebound on Day +1. Positive value of AR (AR = 0.015586,  $t = 4.99$ ) under the MAR is supported by MKAR and OLS too (AR = 0.017723,  $t = 5.40$  and AR = 0.014656,  $t = 5.47$ , respectively). However, from Day +2 and onwards ARs acquire negative values. On Day +5, MAR exhibits a significant negative AR of -0.02081 ( $t = -6.67$ ) while MKAR and OLS models also report similar significant declines of returns, with ARs of -0.01651 ( $t = -5.03$ ) and -0.01649 ( $t = -6.15$ ), respectively. CAAR values also reflect this decline, with MAR reporting CAAR = -0.04202 ( $t = -4.05983$ ) by the end of the event window. These results suggest that despite Day +1 positive returns investors eventually perceive them as net-negative.

The statistically significant CAAR values under MAR and OLS models confirm that cumulative abnormal return values are negative indicating the announcement of increasing dividends did not lead to increasing returns.

### **Non-Financial Companies – Dividend Decrease Events (19 Events)**

The results of the dividend decrease announcements are mainly statistically not significant. According to table 4, Day +2 results show that AR values are negative across all 3 models. OLS and MKAR models report AR of -0.00815 with

t-value of -2.12512 and AR = -0.00936 with t-value of -2.26356, respectively.

Despite the small amount of statistically important data, the results confirm the negative impact of the publication on the reduction of dividends.

## Overall Analysis

According to the results, for non-financial companies a clear pattern has been revealed. During the pre-announcement we observe minimal market activity which reflects a lack of speculative trading or the leakage of information. On the Day 0, the market reacted negatively to the announcement which could signify that news did not meet investor expectations. The CAAR values confirm unfavorable interpretation of these announcements which indicates a critical reassessment by the market in the days following the event. This response highlights the increased sensitivity of non-financial company stock prices to dividend-related announcements, especially in cases where expectations are not met.

## V.III Financial Companies results

| Day   | MAR        |            |          |          | MKAR     |          |          |          | OLS      |          |          |          |          |
|---|------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|   | AR         | t          | CAAR     | t        | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        |          |
| Financial Companies<br>(21 events in total) | -5         | 9,2181E-05 | 0,021449 | 0,012739 | 0,893725 | 0,00367  | 0,9569   | 0,023557 | 1,851767 | 0,003036 | 0,828102 | 0,020055 | 1,649236 |
|   | -4         | -0,0122424 | -2,8486  |          |          | -0,00823 | -2,14541 |          |          | -0,00773 | -2,10907 |          |          |
|   | -3         | 0,00304568 | 0,708677 |          |          | 0,003661 | 0,954389 |          |          | 0,004066 | 1,108947 |          |          |
|   | -2         | -0,0050467 | -1,17428 |          |          | -0,00293 | -0,76491 |          |          | -0,00411 | -1,12221 |          |          |
|   | -1         | 0,0026653  | 0,62017  |          |          | 0,00247  | 0,644056 |          |          | 0,002194 | 0,598339 |          |          |
|   | 0          | 0,00539123 | 1,254446 |          |          | 0,004366 | 1,138253 |          |          | 0,003333 | 0,909152 |          |          |
|   | 1          | 0,00021114 | 0,049129 |          |          | -0,00047 | -0,1214  |          |          | 5,52E-05 | 0,015058 |          |          |
|   | 2          | 0,00209572 | 0,487638 |          |          | 0,003021 | 0,787645 |          |          | 0,003295 | 0,898633 |          |          |
|   | 3          | 0,0017411  | 0,405124 |          |          | 0,001948 | 0,507787 |          |          | 0,001177 | 0,320896 |          |          |
|   | 4          | 0,00616553 | 1,434614 |          |          | 0,007046 | 1,836849 |          |          | 0,007673 | 2,092763 |          |          |
| 5   | 0,00862022 | 2,005777   | 0,009004 | 2,347451 | 0,007073 | 1,929288 |          |          |          |          |          |          |          |

*Table 5. Results for financial companies*

Table 5 shows results for the financial companies, namely Halyk and Kaspi banks. We can observe a limited amount of statistically significant data mainly because of the small number of events. Due to the limited statistically significant data there is no need to divide the data into pre- and post-announcement sectors.

According to the MKAR and OLS models we observe negative AR of -0.00823 and -0.00773 with t-values of -2.145 and -2.109, respectively. More interestingly in comparison with non-financial subgroups after the announcement of dividends we observe positive AR. For example, on Day +5 all three models show positive returns, under the MAR AR = 0.00862022 (t = 2.0057), MKAR AR = 0.009004 (t = 2.347). During Day +4 OLS model shows AR of 0.007673 with t-value of 2.092763.

The results of CAAR are positive, which is an indicator that the stock price is greater than the expected returns after the publication of dividends. According to CAAR values of MKAR and OLS, at 10% significance level the cumulative abnormal returns are positive (CAAR = 0.023557 and 0.020055 with t = 1.85 and t = 1.649, respectively).

| Day  | MAR        |            |          |          | MKAR     |          |          |          | OLS      |          |          |          |          |
|--|------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|  | AR         | t          | CAAR     | t        | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        |          |
| Financial Companies<br>DIVIDEND INCREASE<br>(19 events in total) | -5         | -2,444E-05 | -0,00524 | 0,011872 | 0,767144 | 0,002211 | 0,54674  | 0,026523 | 1,977663 | 0,002405 | 0,610345 | 0,020758 | 1,588528 |
|  | -4         | -0,0139288 | -2,98521 |          |          | -0,00774 | -1,91335 |          |          | -0,00809 | -2,05241 |          |          |
|  | -3         | 0,0056114  | 1,202634 |          |          | 0,006837 | 1,690871 |          |          | 0,006894 | 1,749721 |          |          |
|  | -2         | -0,003848  | -0,8247  |          |          | -0,00278 | -0,68721 |          |          | -0,00353 | -0,89673 |          |          |
|  | -1         | 0,00017522 | 0,037553 |          |          | 0,000701 | 0,173235 |          |          | 1,41E-05 | 0,003575 |          |          |
|  | 0          | 0,00604346 | 1,295233 |          |          | 0,004738 | 1,171751 |          |          | 0,003633 | 0,922119 |          |          |
|  | 1          | 3,6772E-05 | 0,007881 |          |          | -0,00066 | -0,16415 |          |          | -0,00022 | -0,05463 |          |          |
|  | 2          | 0,0015566  | 0,333611 |          |          | 0,003107 | 0,768467 |          |          | 0,003098 | 0,78638  |          |          |
|  | 3          | 0,00194523 | 0,416901 |          |          | 0,004078 | 1,008485 |          |          | 0,002206 | 0,559877 |          |          |
|  | 4          | 0,00606966 | 1,300848 |          |          | 0,00811  | 2,005569 |          |          | 0,008278 | 2,100937 |          |          |
| 5  | 0,00823455 | 1,764826   | 0,007921 | 1,958752 | 0,006065 | 1,539371 |          |          |          |          |          |          |          |
| Financial Companies<br>DIVIDEND DECREASE<br>(2 events in total)  | -5         | 0,00120012 | 0,118351 | 0,020979 | 0,623781 | 0,017536 | 1,695471 | -0,00462 | -0,13473 | 0,009034 | 0,947447 | 0,013372 | 0,422821 |
|  | -4         | 0,00377841 | 0,372611 |          |          | -0,0129  | -1,24763 |          |          | -0,00437 | -0,45835 |          |          |
|  | -3         | -0,0213287 | -2,10335 |          |          | -0,02652 | -2,56394 |          |          | -0,0228  | -2,39129 |          |          |
|  | -2         | -0,0164342 | -1,62068 |          |          | -0,00441 | -0,4261  |          |          | -0,00964 | -1,01067 |          |          |
|  | -1         | 0,02632108 | 2,59568  |          |          | 0,019284 | 1,864548 |          |          | 0,0229   | 2,401685 |          |          |
|  | 0          | -0,000805  | -0,07939 |          |          | 0,000829 | 0,080198 |          |          | 0,000485 | 0,050814 |          |          |
|  | 1          | 0,00186767 | 0,184182 |          |          | 0,001417 | 0,136975 |          |          | 0,002624 | 0,275241 |          |          |
|  | 2          | 0,00721732 | 0,711743 |          |          | 0,002201 | 0,212823 |          |          | 0,00516  | 0,541184 |          |          |
|  | 3          | -0,0001981 | -0,01954 |          |          | -0,01829 | -1,76845 |          |          | -0,0086  | -0,90222 |          |          |
|  | 4          | 0,00707627 | 0,697834 |          |          | -0,00307 | -0,29648 |          |          | 0,001927 | 0,202044 |          |          |
| 5  | 0,01228404 | 1,211403   | 0,019296 | 1,865729 | 0,016653 | 1,746459 |          |          |          |          |          |          |          |

Table 6. Dividend increase and decrease results for financial companies

This table presents the results of financial companies with the division of dividends to increasing and decreasing. According to the data there are only 2 events with dividend decrease cases and 19 events for dividend increase. Because of the limited number of events there are a small number of significant events. Therefore, no need to divide events to pre- and post-announcement results.

According to table 6, during the dividend increase cases before announcing the dividends on Day -4 we observe negative abnormal returns. According to the MAR AR = -0.0139 with t-value of -2.98 and -0.00809 with t-value of -2.05 reported by OLS. However, after the announcement of dividends relying on MKAR and OLS we observe positive abnormal returns: AR = 0.00811 with t-value of 2.005569 and AR = 0.008278 with t-value of 2.100937 on Day +4. The Cumulative Abnormal

Return (CAAR) value is 0.026523 (MKAR) is statistically significant at 5%, according to which we conclude that the dividend increase announcements have positive impact on returns.

The dividend decreasing events show that on Day -3 we observe negative abnormal returns according to all 3 models. Under MAR the AR = -0.0213287 (t = -2.103), MKAR and OLS report AR of -0.02652 and -0.0228 with t-values of -2.56 and -2.39. This could mean that prior to the announcement of dividends, insider information could have been leaked, which caused a negative reaction from the market and holders. However, on Day -1 results report positive AR from all models which contradicts previous suggestion. The results after the announcement are statistically insignificant and ambiguous. But nevertheless, according to the MKAR model, on the Day +3 after publication, the results show negative AR (AR = -0.01829 with t-value of -1.76845), but on the Day +5, the same MKAR and OLS report positive AR (AR = 0.01929 with t = 1.86 and AR = 0.0166 and t = 1.746) which are significant at 10% significance level.

## **VII. Analysis and explanation of results**

In order to explain and identify the reasons why the reactions of financial and non-financial organizations differ, it is necessary to look at investors' expectations regarding dividends. To do this, the expected amount of dividends was calculated

according to the formulas in the dividend policy of each organization. For example, KazMunaiGas pays at least 75% of its free cash flow if the ratio of net debt to EBITDA is equal to or less than 1 or KEGOC pays at least 60% of its Net Income for a certain period. After that, a regression was performed with updated data, where in the table 7 “more dividends” means more dividends were paid than expected and “less dividends” means the company paid less amount of dividends than expected amount. For certain companies it was impossible to calculate the number of expected dividends because the formula requires special coefficients that are assigned by the organization itself, or for some companies the dividend policy has been changed. Therefore, the number of events decreased.

| Declaration | Amount | Expected amount |
|-------------|--------|-----------------|
| 31.05.2024  | 79.5   | 50.5            |
| 05.05.2023  | 50.59  | 30.354          |
| 28.10.2022  | 65.44  | 39.264          |
| 22.06.2022  | 50.85  | 57.865          |
| 01.11.2021  | 84.72  | 63.699          |
| 28.04.2021  | 75.01  | 57.247          |
| 23.10.2020  | 77.09  | 66.077          |
| 29.05.2020  | 48.86  | 39.61           |
| 12.11.2019  | 67.17  | 52.0697         |
| 06.06.2019  | 54.53  | 37.306          |
| 04.12.2018  | 80.53  | 60.3975         |
| 22.05.2018  | 40.13  | 34.397          |
| 29.06.2017  | 28.13  | 33.756          |
| 19.05.2015  | 33.13  | 62.724          |

*Figure 2. Real amount and expected amount of dividends of KEGOC*

| Day   | MAR      |          |          |          | MKAR     |          |          |          | OLS      |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|   | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        |          |
| All Companies<br>MORE DIVIDENDS<br>(44 events in total) | -5       | -0,00063 | -0,23824 | -0,00205 | -0,23232 | -0,00217 | -0,81539 | 0,00371  | 0,420222 | -0,00062 | -0,26934 | 0,006513 | 0,854498 |
|   | -4       | -0,00131 | -0,4952  |          |          | 0,000686 | 0,257715 |          |          | 0,001568 | 0,682375 |          |          |
|   | -3       | 0,001905 | 0,717599 |          |          | 0,001603 | 0,60208  |          |          | 0,003292 | 1,432666 |          |          |
|   | -2       | -0,00054 | -0,20205 |          |          | 0,000489 | 0,183758 |          |          | 0,000229 | 0,099736 |          |          |
|   | -1       | -0,00284 | -1,06961 |          |          | -0,00268 | -1,0066  |          |          | -0,00266 | -1,15893 |          |          |
|   | 0        | 0,001003 | 0,377767 |          |          | 0,00216  | 0,811263 |          |          | 0,001628 | 0,708573 |          |          |
|   | 1        | 0,00474  | 1,785181 |          |          | 0,005068 | 1,903021 |          |          | 0,004103 | 1,78531  |          |          |
|   | 2        | -0,00354 | -1,33275 |          |          | -0,00192 | -0,71968 |          |          | -0,00195 | -0,84743 |          |          |
|   | 3        | -0,0011  | -0,41537 |          |          | -0,00201 | -0,75544 |          |          | -0,00115 | -0,49855 |          |          |
|   | 4        | -0,00174 | -0,65507 |          |          | -0,00049 | -0,18449 |          |          | -0,00067 | -0,29157 |          |          |
| 5   | 0,002011 | 0,757242 | 0,002976 | 1,117491 | 0,002737 | 1,191204 |          |          |          |          |          |          |          |
| All Companies<br>LESS DIVIDENDS<br>(10 events in total) | -5       | -0,00155 | -0,29279 | -0,01877 | -1,06602 | 7,02E-05 | 0,014019 | -0,01797 | -1,08299 | -0,00162 | -0,33776 | -0,01336 | -0,84072 |
|   | -4       | 0,002614 | 0,492284 |          |          | -9E-05   | -0,01806 |          |          | 0,001247 | 0,260226 |          |          |
|   | -3       | 0,001382 | 0,260277 |          |          | 0,002968 | 0,593166 |          |          | 0,002488 | 0,519331 |          |          |
|   | -2       | -0,01854 | -3,49195 |          |          | -0,01992 | -3,98121 |          |          | -0,01841 | -3,84192 |          |          |
|   | -1       | 0,008637 | 1,626878 |          |          | 0,005146 | 1,028374 |          |          | 0,00662  | 1,381737 |          |          |
|   | 0        | 0,00163  | 0,307113 |          |          | 0,000103 | 0,020514 |          |          | 0,001163 | 0,242804 |          |          |
|   | 1        | -0,00592 | -1,11529 |          |          | -0,00513 | -1,02532 |          |          | -0,0026  | -0,54186 |          |          |
|   | 2        | -0,00163 | -0,30733 |          |          | 0,001831 | 0,365815 |          |          | 0,001695 | 0,353733 |          |          |
|   | 3        | -0,00423 | -0,79595 |          |          | -0,00396 | -0,79103 |          |          | -0,00418 | -0,87143 |          |          |
|   | 4        | -0,00145 | -0,27268 |          |          | 0,000162 | 0,032428 |          |          | -0,0004  | -0,08393 |          |          |
| 5   | 0,000286 | 0,053822 | 0,000848 | 0,169426 | 0,000626 | 0,130697 |          |          |          |          |          |          |          |

Table 7. Results for expected dividends for all companies

For all companies including financial and non-financial we observe a limited amount of statistically significant data. CAAR values in cases when more dividends paid than expected show mixed results; MAR reports CAAR = -0.00205, but MKAR and OLS show 0.003712 and 0.006513 respectively, however all 3 values are insignificant. On Day +1 all AR values are positive and significant at 10% significance level for MAR and OLS, whereas MKAR reports AR = 0.005068 (t = 1.903).

When less dividends are paid than expected we observe statistically significant results on Day -2. All 3 models report negative ARs before the

announcement of dividends. After the announcement we are unable to make conclusions as no statistically significant data was observed.

| Day   | MAR      |          |          |          | MKAR     |          |          |          | OLS      |          |          |          |  |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
|   | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        |  |
| Non-Financial Companies<br>MORE DIVIDENDS<br>(32 events in total) | -5       | -0,00111 | -0,35845 |          |          |          |          |          |          |          |          |          |  |
|   | -4       | 0,001003 | 0,32403  |          |          |          |          |          |          |          |          |          |  |
|   | -3       | 0,000391 | 0,126324 |          |          |          |          |          |          |          |          |          |  |
|   | -2       | 0,000639 | 0,206441 |          |          |          |          |          |          |          |          |          |  |
|   | -1       | -0,00491 | -1,58608 |          |          |          |          |          |          |          |          |          |  |
|   | 0        | -0,00134 | -0,43327 | -0,01401 | -1,36541 | -0,00258 | -0,80885 |          |          | -0,00083 | -0,29917 |          |  |
|   | 1        | 0,006659 | 2,152387 |          |          | 0,002307 | 0,722523 |          |          | 0,002982 | 1,078697 |          |  |
|   | 2        | -0,00664 | -2,14683 |          |          | -0,00061 | -0,19239 |          |          | 0,001514 | 0,547774 |          |  |
|   | 3        | -0,00167 | -0,53923 |          |          | 0,001602 | 0,50158  |          |          | 0,001568 | 0,567285 |          |  |
|   | 4        | -0,00602 | -1,94412 |          |          | -0,0048  | -1,50289 |          |          | -0,00505 | -1,82781 |          |  |
| 5   | -0,00102 | -0,32976 |          |          | 0,000475 | 0,148626 | -0,01101 | -1,03926 | -1E-05   | -0,00361 | -0,00723 | -0,78902 |  |
| Non-Financial Companies<br>LESS DIVIDENDS<br>(7 events in total)  | -5       | -0,00219 | -0,3     |          |          |          |          |          |          |          |          |          |  |
|   | -4       | 0,004053 | 0,556368 |          |          |          |          |          |          |          |          |          |  |
|   | -3       | 0,000778 | 0,106731 |          |          |          |          |          |          |          |          |          |  |
|   | -2       | -0,02446 | -3,35788 |          |          |          |          |          |          |          |          |          |  |
|   | -1       | 0,011585 | 1,590265 |          |          |          |          |          |          |          |          |          |  |
|   | 0        | 0,003068 | 0,42112  | -0,01381 | -0,57139 | 0,000475 | 0,148626 |          |          | 0,005585 | 2,020415 |          |  |
|   | 1        | 0,001343 | 0,184308 |          |          | 0,006925 | 2,168823 |          |          | -0,00561 | -2,02914 |          |  |
|   | 2        | 0,002056 | 0,282257 |          |          | -0,00364 | -1,13859 |          |          | -0,00215 | -0,77751 |          |  |
|   | 3        | -0,00569 | -0,78151 |          |          | -0,00473 | -1,48181 |          |          | -0,00529 | -1,91347 |          |  |
|   | 4        | -0,00237 | -0,32553 |          |          | -0,00039 | -0,12222 |          |          | 5,44E-05 | 0,019665 |          |  |
| 5   | -0,00198 | -0,27121 |          |          | -0,00094 | -0,14103 |          |          | -0,00318 | -0,49876 |          |          |  |
|   |          |          |          |          | -0,00138 | -0,20644 |          |          | 0,000661 | 0,103664 |          |          |  |
|   |          |          |          |          | 0,001567 | 0,234406 |          |          | 0,001374 | 0,215431 |          |          |  |
|   |          |          |          |          | -0,02738 | -4,09496 |          |          | -0,02473 | -3,87681 |          |          |  |
|   |          |          |          |          | 0,005296 | 0,792226 |          |          | 0,008045 | 1,261185 |          |          |  |
|   |          |          |          |          | 0,000207 | 0,030925 | -0,02759 | -1,24424 | 0,002266 | 0,355257 | -0,01774 | -0,83847 |  |
|   |          |          |          |          | -0,00157 | -0,2342  |          |          | 0,000849 | 0,133105 |          |          |  |
|   |          |          |          |          | 0,005059 | 0,756681 |          |          | 0,00445  | 0,697653 |          |          |  |
|   |          |          |          |          | -0,00516 | -0,77212 |          |          | -0,00449 | -0,70409 |          |          |  |
|   |          |          |          |          | -0,00156 | -0,23378 |          |          | -0,00176 | -0,27607 |          |          |  |
|   |          |          |          |          | -0,00173 | -0,2584  |          |          | -0,00122 | -0,19144 |          |          |  |

Table 8. Results for non-financial companies on expected dividends

The results of non-financial companies are quite specific as on Day +1 positive abnormal returns with statistically significant values were observed. MAR reports AR = 0.006659 with t = 2.15, under MKAR AR = 0.006925 with t = 2.1688 and under OLS AR = 0.005585 with t = 2.02. But afterwards results exhibit contradictory values; on Day +2 AR = -0.00664 with t = -2.146 under MAR, AR = -0.00561 with t = -2.029 under OLS. Overall CAAR values are negative, however they are not statistically significant. The results mean that regardless of whether

investors' expectations are met and more dividends are paid than expected, the market is covered by a negative abnormal return after Day +1.

**Possible explanations for non-financial companies results.**

There may be other factors that negatively affect investor expectations. Investors could expect that the company should not pay dividends, as the company may have poor financial performance. But in order not to cause panic, preserve its reputation and instill confidence in the market, the company decided to pay dividends, which investors did not like.

Main difference between non-financial companies and financial companies' dividend policies is in their dividend policy types. For example, let's look at Kaspi Bank's dividend payment history. This is an example of stable dividend policy. We can observe a stable increase in the amount of payments and a clear pattern can be revealed.

| Declaration          | Amount |
|----------------------|--------|
| 22.07.2024 (2Q 2024) | 850    |
| 27.05.2024 (1Q 2024) | 850    |
| 26.02.2024 (4Q 2023) | 850    |
| 20.10.2023 (3Q 2023) | 850    |
| 24.07.2023 (2Q 2023) | 750    |
| 24.04.2023 (1Q 2023) | 750    |
| 28.02.2023 (4Q 2022) | 600    |
| 24.10.2022 (3Q 2022) | 600    |
| 08.09.2022 (2Q 2022) | 500    |
| 25.10.2021 (3Q 2021) | 468    |

*Figure 3. Kaspi bank dividends history*

In figure 3 we observe residual dividend type policy. The main difference between these two policies is that companies that adhere to the second type of dividend first invest free cash flow in other projects with a positive NPV, only the remaining money is paid as dividends. Therefore, we notice fluctuations and inconsistencies in payment history, and no pattern is revealed.

| Declaration | Amount |
|-------------|--------|
| 31.05.2024  | 79.5   |
| 05.05.2023  | 50.59  |
| 28.10.2022  | 65.44  |
| 22.06.2022  | 50.85  |
| 01.11.2021  | 84.72  |
| 28.04.2021  | 75.01  |
| 23.10.2020  | 77.09  |
| 29.05.2020  | 48.86  |
| 12.11.2019  | 67.17  |
| 06.06.2019  | 54.53  |
| 04.12.2018  | 80.53  |
| 22.05.2018  | 40.13  |
| 29.06.2017  | 28.13  |
| 19.05.2015  | 33.13  |

*Figure 4. KEGOC dividend payments*

Moreover, there is an opposite side of signaling theory: market punishes you because the firm should not have paid out the dividends or paid less in comparison with previous payments according to the investors wishes and expectations. This case is similar to financial distress consequences as it has a negative relationship between announcement and price for share. Accordingly, the more financial problems and debts a company has, the worse the market reaction even to an increase in dividends. But in order to not lose their value in the market and to assure investors of the future, some companies specifically overestimate dividends which is counter intuitive for investor and this causes negative reaction from the market.

### Financial Companies result on expected dividends

| Day   | MAR        |            |          |          | MKAR     |          |          |          | OLS      |          |          |          |          |
|---|------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|   | AR         | t          | CAAR     | t        | AR       | t        | CAAR     | t        | AR       | t        | CAAR     | t        |          |
| Financial Companies<br>MORE DIVIDENDS<br>(12 events in total) | -5         | 0,00063811 | 0,128072 | 0,029862 | 1,807128 | -0,00107 | -0,2402  | 0,042959 | 2,895467 | -6,4E-05 | -0,01514 | 0,043169 | 3,068281 |
|   | -4         | -0,0074943 | -1,50415 |          |          | -0,00364 | -0,81277 |          |          | -0,0022  | -0,51897 |          |          |
|   | -3         | 0,00594371 | 1,192939 |          |          | 0,007517 | 1,680422 |          |          | 0,008034 | 1,893861 |          |          |
|   | -2         | -0,0036703 | -0,73665 |          |          | -0,00248 | -0,55364 |          |          | -0,00334 | -0,78762 |          |          |
|   | -1         | 0,00267329 | 0,536546 |          |          | 0,002968 | 0,663524 |          |          | 0,003708 | 0,874067 |          |          |
|   | 0          | 0,00725236 | 1,455593 |          |          | 0,006656 | 1,487904 |          |          | 0,005997 | 1,413704 |          |          |
|   | 1          | -0,0003795 | -0,07617 |          |          | 0,000114 | 0,025581 |          |          | 0,00015  | 0,03543  |          |          |
|   | 2          | 0,00473814 | 0,950974 |          |          | 0,007803 | 1,744282 |          |          | 0,007817 | 1,842624 |          |          |
|   | 3          | 0,00040531 | 0,081348 |          |          | 0,002319 | 0,518314 |          |          | 0,00153  | 0,360754 |          |          |
|   | 4          | 0,00966296 | 1,939417 |          |          | 0,010816 | 2,417873 |          |          | 0,011648 | 2,745727 |          |          |
| Financial Companies<br>LESS DIVIDENDS<br>(3 events in total)  | 5          | 0,0100926  | 2,025648 | -0,03036 | -0,92273 | 0,011953 | 2,671892 | 0,004459 | 0,149507 | 0,009892 | 2,331898 | -0,00314 | -0,10645 |
|   | -5         | -8,205E-05 | -0,00827 |          |          | 0,002434 | 0,270661 |          |          | 0,002029 | 0,228026 |          |          |
|   | -4         | -0,0007453 | -0,07513 |          |          | 0,002919 | 0,324627 |          |          | 0,002613 | 0,293635 |          |          |
|   | -3         | 0,00279191 | 0,281459 |          |          | 0,006238 | 0,69369  |          |          | 0,005088 | 0,571705 |          |          |
|   | -2         | -0,0047193 | -0,47576 |          |          | -0,00253 | -0,28139 |          |          | -0,00366 | -0,41084 |          |          |
|   | -1         | 0,0017593  | 0,177359 |          |          | 0,004796 | 0,533319 |          |          | 0,003296 | 0,370375 |          |          |
|   | 0          | -0,0017233 | -0,17373 |          |          | -0,00014 | -0,01559 |          |          | -0,00141 | -0,15843 |          |          |
|   | 1          | -0,0228702 | -2,3056  |          |          | -0,01345 | -1,4957  |          |          | -0,01064 | -1,19507 |          |          |
|   | 2          | -0,0102366 | -1,03198 |          |          | -0,0057  | -0,63407 |          |          | -0,00473 | -0,53201 |          |          |
|   | 3          | -0,0008017 | -0,08082 |          |          | -0,00115 | -0,12793 |          |          | -0,00344 | -0,38631 |          |          |
| 4   | 0,00070785 | 0,07136    | 0,004188 | 0,465703 | 0,002769 | 0,311124 |          |          |          |          |          |          |          |
| 5   | 0,00556259 | 0,560779   | 0,006857 | 0,762543 | 0,004937 | 0,554751 |          |          |          |          |          |          |          |

Table 9. Results for financial companies on expected dividends

According to the results of the expected dividends, when more than expected were paid, we observe a positive market reaction. This is especially noticeable on Days +4 and +5. All 3 models report positive AR values and they are statistically significant (MAR shows  $AR = 0.0100926$  with  $t = 2.02$  on Day +5, MKAR reports  $0.0108$  on Day +4 with  $t = 2.417$  and  $AR = 0.011953$  with  $t = 2.67$  on Day +5, OLS reports  $AR = 0.011648$  with  $t = 2.745$  on Day +4 and  $AR = 0.009892$  with  $t = 2.33$ ), which means market and investors reacted positively to the news as an announcement met or even exceeded their expectations. CAAR values of MKAR and OLS also confirm the previous statement that when the amount of dividends exceeds the expected amount, the market reacts positively ( $CAAR = 0.0429$ ,  $t = 2.895$  under MKAR and  $CAAR = 0.043$  with  $t = 3.068$  under OLS).

### **Limitations and possible improvements**

The first imitation of this project is that shares of only 8 companies were placed on trading exchanges and 79 events were performed. This number is small relative to other markets. This fact significantly affects the results, since events are categorized into increasing and decreasing dividends which also declines their number. Therefore, it is proposed to use the markets of neighboring countries or the CIS, which are connected with the market of Kazakhstan.

Secondly, it is necessary to conduct a study on liquidity and financial distress and assess their impact on investor reaction. This is due to the fact that financial distress has a negative relationship with the announcement and the price per share. Accordingly, the more financial problems and debts a company has, the worse the market reaction even to an increase in dividends.

## **VII. Conclusion**

### **For Hypothesis I (Impact of Dividend Announcements):**

According to the results of dividend announcements of both financial and non-financial companies combined **we reject the null hypothesis** as there is significant market reaction to dividend announcements. However, the reaction is mixed as we observe strong positive reactions on Day +1, at the same time significant negative reactions on Days +2 and +5. Overall negative cumulative effect was observed (negative CAAR). The main rationale for such a conclusion is that results are consistent across all three methodologies (MAR, MKAR, OLS).

### **Hypothesis II (Market Reaction to Changes in Dividend Policy)**

According to the results of dividend announcements of both financial and non-financial companies combined **we reject the null hypothesis** as there are

significantly different market reactions to dividend increases and decreases. From the results, dividend increases show stronger response and more significant market reactions were observed. Moreover, dividend decreases show milder and mostly insignificant reactions. Therefore, the market appears more sensitive to dividend increases than decreases. This asymmetric response suggests that changes in dividend policy do affect stock price performance, but the impact is more pronounced for dividend increases than decreases.

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