

The analysis of market reaction on dividend announcements of Russian companies

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The paper is aimed at examining the market reaction on announcements about dividend payments of Russian companies. Though there are numerous papers devoted to this problem, their results are controversial, and they are rather related to developed markets than to developing economies. The understanding of signals that dividend announcements give companies' shareholders and potential investors is important because it helps to improve the quality of investment and financial decisions.

The peculiarity of this paper is that different sectors of economy are analyzed separately. The difference in reaction in different sectors of economy is revealed. The research is based on the event study methodology. The data sample consists of 115 announcements of Russian public companies for the period of 2009-2013.

Dividend payments, dividend policy, market reaction, event study analysis.

1. Introduction

One of the key issues of corporate finance is to assess the impact of financial decisions at the market value of the company, which, if the company is listed on the market, may be estimated through the share price. Though in the middle of the last century, Miller and Modigliani (1961) have proved that at a perfect capital market financial decisions do not affect the share prices, in fact, the market is not perfect, and managerial decisions should take into account such factors as information asymmetry, tax burden, institutional constraints, and other transaction costs.

Modern companies are functioning within an aggressive information environment. Once a company enters the market, it is immediately involved in the powerful information stream and becomes a source of information itself. Certain event or information about it can affect the share prices of companies.

The dividend policy is one of the factors that affect the market value of the company and, consequently, the welfare of its shareholders. For a long time researchers have attempted to find the relationship between the value of the company and dividend payments.

Most studies of the reaction of the market value of companies to changes in the dividend payments is related to developed markets (USA, Germany, UK, Denmark, and others). There is a general conclusion from these papers that share prices are rising at the response to the increase in dividend payments, and vice versa, the reductions of payments cause the decrease of shares prices. This market reaction is consistent with the signaling theory of dividends.

In Russia, the problem is not studied deeply, that can be explained by the fact that the majority of listed joint stock companies do not consider their dividend payments as an effective tool of managing the companies' market values. The only fundamental work (Teplova, 2008), though, is very interesting because the author, while evaluating the reaction of the Russian market at the dividend payments announcements and received a negative reaction both to the news about the dividends increases, and about their decline. However, the data obtained is related to the period before 2007, and since then the market situation has changed dramatically. This consideration requires adjustments in research methods and conclusions.

Because of the importance of the topic and the insufficient development of studies on dividend policies in Russia, the main objective of this work is to assess the market reaction at the information on dividend payments made Russian companies.

2. Dividend policies of Russian companies

Dividend policy is generally understood as a part a company's financial policy, aimed at the distribution of profit and defining the share of profit that is transferred to owners. It should answer two key questions:

1. Do dividend payments influence at the total shareholders' wealth?
2. If they have impact, then what should be the optimal dividend payment?

The main theoretical foundation, upon which the assessment of the market reaction to dividend payments is based, is the signaling theory (Miller & Rock, 1985). Because of the information asymmetry, the true value of the company is very often unknown to investors. Dividends may help to improve its understanding. According to the signaling theory, dividends give investors a signal about the company's future earnings. High dividends mark the high income of the company, its stability, as well as its favorable prospects. However, on the other hand, high dividend may mean that the company's management does not see the

capacity for rapid growth and plans to reduce investment.

Dividend policy of Russian companies has following specific features.

1. The uneven development of industries. Oil and gas industry, metal processing and telecommunications have been the main players at the market and the key drivers of economic growth for a long period of time. This imbalance affects both the profitability of businesses and the distribution of earnings. More than 80% of all dividend payments are related to oil and gas industry (Lukasiewicz, 2007), due to high energy prices, capital-intensive activities and the need for these companies to attract additional funding for investment, while the of financial leverage in this industry traditionally is rather low (the average equity multiplier for 41 world-largest oil companies is 1.98, that is only half the assets of companies is formed by debt (Rogova, 2014)). It is an opportunity to attract investors that makes Russian companies to shift to more transparent dividend policies. High and constant payments in the telecommunications industry are explained by rapid growth of these companies, as well as the corporate governance, relevant to international standards. The companies in this industry have many foreign investors who also have an impact at their dividend policies.

2. The specific structure of shareholders of Russian companies. About 68% of the shares of Russian listed companies belongs to direct investors, and the free float, respectively, is only about 32%. The government has the full ownership in than 150 companies, a majority stake in 500 companies and a blocking control in more than 1000 companies. It also has minority stakes in about 1,750 companies.

Some government-owned companies, as Gazprom, are paying dividends regularly. However, many state-owned companies are trying to find ways not to share their profits with shareholders.

3 The insufficient development of the legislation. The main problem shareholders deal with is the timing and mechanism of dividend payments. While in many countries the dividends can be obtained within three days, in Russia it may require a much longer period. However the legislation is changing. According to the Federal Law of 29.12.2012 № 282-FZ, since 2014 dividends payments should be paid within a period of 25 working days from the date on which the list of the persons who are entitled to receive dividends, is defined. Before this, the dividend payments were made within 60 days, unless otherwise has been decided by the company. In practice, the payments period could be stretched to six months.

Thus, Russian companies are currently in the process of improving existing or creating new, more effective dividend policies, which gradually become considered as a tool of companies' investment appeal and value growth.

Literature review

Among the papers devoted to the analysis of the impact of the announcements on dividend payments at shares prices one may notice the commonless of conclusions for developed markets. Thus, the research of the American market (Pettit, 1972; Aharony & Swary, 1980; Grullon, Michaely and Swaminathan, 2002) has demonstrated that when a company increases its dividend payments, there is an average increase in shares prices, if a company reduces the dividends, then prices are falling.

Amihud and Murgia (1997) examined the German stock market reaction to the announcement on dividend payments. The paper revealed that, despite the different taxation in the United States and Germany, the reaction to the announcements on dividend payments at these markets is similar.

Interesting, and to some extent controversial to the classical signaling theory, results were obtained by Karim (2010), who found that in the period from 2006 to 2008, the shares

traded on the NYSE, showed no significant response to dividend payments announcements, no matter what information is contained in these reports (information on the increase, reduction or unchanged dividends). At the London Stock Exchange companies demonstrated a positive abnormal return in response to announcements about the reduction of dividends, negative - as a reaction to an increase in the amount of dividends, and showed no change in returns in response to information about the immutability of dividends. Perhaps these results are attributed to the period of the study that preceded the financial crisis.

As to emerging markets, the impact of dividend payments announcements at the shares prices is less examined. Aivazian and Booth (2003) compared the dividend policies in the United States and 8 emerging markets (Jordan, Pakistan, Zimbabwe, India, Korea, Malaysia, Turkey and Thailand), and found that factors influencing dividend policies at the emerging markets and in the USA, are the same. First of all, dividend policy is shaped by the company's profitability, its financial leverage and market-to-book ratio. However, the degree of influence of these variables is different.

Altıok-Yılmaz and Akben-Selçuk (2010) proved the confirmation of the signaling theory for the Turkish market. Berezinets, Bulatova and Ilyina (2013) confirmed the similarity of the reactions to the announcement of dividend payments for the emerging market (India) and developed markets. The authors found that the Indian market, on average, reacts positively to the announcements of the increase in dividends, reacts negatively to the announcements of the reductions in dividend payments and does not respond to announcements about a constant value of the dividend.

Research of the Russian market is presented by Teplova (2008), who had obtained the opposite results to the majority of other studies. The market reacted negatively to the news about dividends increase. The explanation was provided, that only large Russian companies had been included in the sample, and the results were correlated with the signaling theory.

Methodology and data sampling

We used event studies for testing the market reaction to the announcement about dividend payments. Foundational work on event study analysis goes back to the 1960s. Ball and Brown (1968) looked at the market response to announcements about companies' financial results. Fama, Fisher, Jensen and Roll (1969) investigated market reaction to information on company stock splitting. The methodology used in many of the current event studies is basically the same as the methodology introduced in these early works. Based on the notion of an efficient market that will respond immediately to any consequential events, the objective of event study analysis is to assess the impact of specific events or happenings on company performance through the market reaction to these events. If an event is perceived to have a positive impact on company performance, the stock price for that company will go up, and if the event is perceived to have a negative impact on company performance, the stock price will go down. In Russia, event study analysis has been used to investigate dividend policies (Teplova, 2008), and capitalization (Grigoriadi, Ivashkovskaya and Shamraeva, 2009; Okoulov, 2010). The method is based on testing the statistical hypothesis about significant differences from zero for the expected value of the abnormal return.

In this paper, the announcements on dividend payments are considered as events. We used the Emerging Markets Information Service (EMIS) database for this purpose, limiting our search to the period from 1 January 2009 to 1 January 2014. All the announcements collected were analyzed for the absence of other significant events that could have an impact on share prices within the event window. We also excluded companies for which we could not get information on daily share prices. Our final sample consisted of 115 announcements

from 58 companies in various industries. More than 50% of the sample falls on the chemical industry, metallurgical industry and production of fuel and energy minerals. Companies included in the sample, actively trade their shares, both at the Moscow Interbank Currency Exchange, and at foreign exchanges (LSE, NASDAQ, etc.). However, due to the fact that we examine the reaction of Russian companies, the study is limited to the MICEX.

In our study, 11-day time period is used for the event window (from the fifth day prior to the announcement, till the fifth day after the announcement). Estimation window is 120 days (4 months), 125 to 5 days before the announcement. Estimation window and event window do not overlap each other, thus minimizing the possibility of the influence of the events at the normal returns.

We used the market model to calculate normal returns as following:

$$E(R_i) = \alpha_i + \beta_i \times E(R_m), \quad (1)$$

where $E(R_i)$ denotes the expected rate of return for a capital asset; $E(R_m)$ is the expected return on the market portfolio; α_i , β_i are the coefficients of the regression model for the share i .

To assess the market reaction the event and test our hypotheses we look at the abnormal or excess returns of the investigated stock, which is calculated as the difference between the actual return and the estimated expected return, based on the stock performance during the estimation period:

$$AR_{it} = R_{it} - E(R_{it} | X_t), \quad (2)$$

where AR_{it} denotes the abnormal return on the security i at day t ; R_{it} denotes the actual market return at day t ; $E(R_{it} | X_t)$ denotes the expected market return of the i -th security at day t .

Cumulative abnormal returns (CAR) can be calculated by summing the AR for the days of the event window (Kothari & Warner, 2007). To assess the stock price reaction for significance, cumulative average abnormal returns (CAAR) are calculated for a particular event window as:

$$CAAR_i(t_1, t_2) = \frac{1}{N} \times \sum_{t=t_1}^{t_2} CAR_{it}, \quad (3)$$

where: $CAR_i(t_1; t_2)$ denotes cumulative abnormal return within the event window; t_1 is the first day of the event window; t_2 is the upper one; N is the sample size.

We should test the hypothesis for significant differences from zero of the expected value of abnormal returns:

$$H_0: E [CAAR_i(t_1; t_2)] = 0 \quad (4)$$

$$H_1: E [CAAR_i(t_1; t_2)] \neq 0 \quad (5)$$

Research hypotheses

The information collected for the study included the name of the company, the date of the announcement, the industry to which the company belongs, as well as information on how dividend payments had changed. We divided the sample into three groups according to the character of the announcement - the "good", "bad" and "neutral" news. To "good" news we related announcement of dividend increase more than 5% and the announcement of the resumption of dividend payments. To "bad" news there were related the announcements of the reduction of dividend payments by more than 5% and the refusal to pay dividends after the company had paid them for a certain period. The third group ("neutral" news) contained announcements with information that dividend payments had not changed or had changed slightly (decreased or increased by less than 5%). In the final sample, more than half the news

were "good", about a third - "bad" and the other "neutral" (Fig. 1).

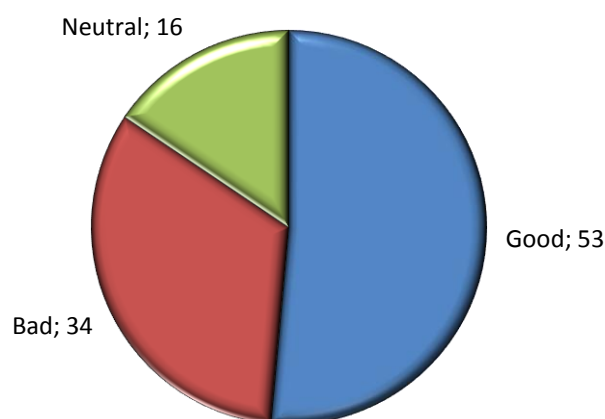


Fig. 1. The distribution of the sample according to the character of news

Following the results obtained by the majority of academic papers, we posed our three basic hypotheses as follows.

H1: Announcements about the increase of dividend payments would cause the growth of share prices of Russian companies.

H2: Announcements about the decrease of dividend payments would cause the diminishing of share prices.

H3: Announcements on constant dividend payments do not affect the share prices.

In addition, we assumed that the reaction of companies in various sectors of the economy would differ. To verify this, we formulated the following hypothesis.

H4: The reaction to the "good" news will vary depending on the industry in which the company operates.

Results and discussion

The GRANK method was used to test our hypotheses (Kolari, 2010). The results obtained are presented at Table 1.

Table 1

Test statistics results for all the types of announcements

Type of the news	CAAR GRANK	Student test, 10-% level of significance	Student test, 5-% level of significance
Good	-8,07489*	1,676	2,009
Bad	-2,02063**	1,699	2,045
Neutral	-1,59641	1,753	2,131

* - significant at the 5-% level of significance;

** - significant at the 10-% level of significance.

The hypothesis of normality of the distribution for the sample of "good" announcements is rejected at 5-% significance level, and the hypothesis of normality of the distribution for the sample of "bad" announcements is rejected at 10% significance level. Thus, we can conclude that the announcement about the changes in dividend payments affects significantly the company's share price. "Neutral" news, on the other hand, do not affect the company's share price, so our third hypothesis is supported.

To check the remaining hypothesis, we have calculated abnormal returns and

cumulative abnormal return for each announcement in the sample. Analysis of the cumulative abnormal return shows that the "good" news (increase of dividends) from 2009 to 2014 has a negative effect on the reaction of the stock market (Fig. 2).

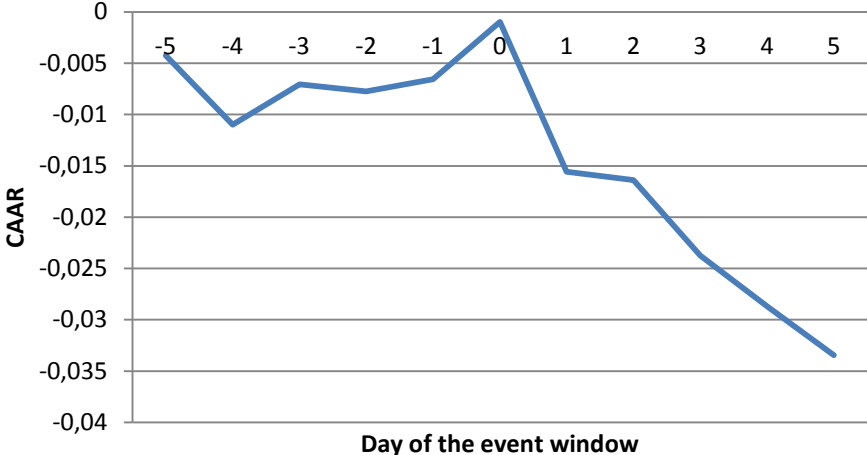


Fig 2. The reaction at the “good” announcements

The figure demonstrates the negative CAAR within the entire event window, i.e company's stock price declines steadily over the observed period. After all the market participants recognize that the company increases dividends (t = 0), share prices begin to decrease at a higher rate compared to the previous five days before the announcement. Thus, the first hypothesis, that the news of the dividend increase causes an increase of share prices, was incorrect.

Next, we consider the market reaction to the "bad" news (Fig. 3). The figure clearly expresses a positive market reaction to the "bad" news throughout the event window. CAAR meaning is greater than zero and increasing, i.e average stock prices grow at the company's announcement about the dividends reduction. So, the second hypothesis was also incorrect.

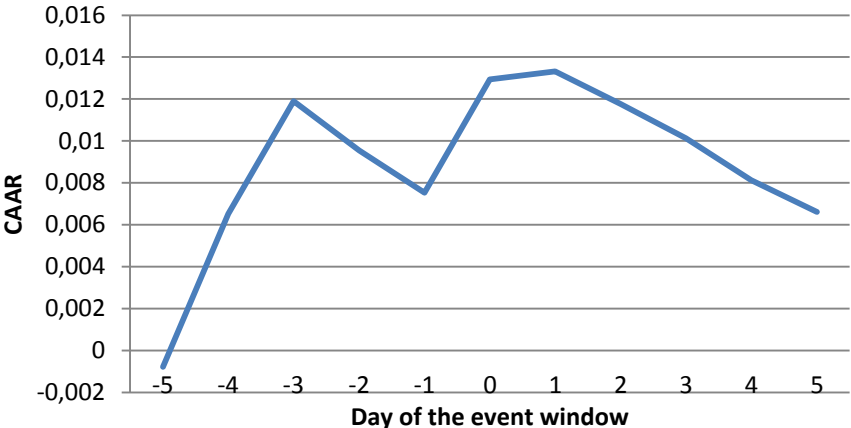


Fig. 3. The reaction at the “bad” announcements

The results are similar to those obtained by Teplova (2008), related to the period 1999 to 2006. That is, in spite of the general tendency of dividend payments growth, the market reaction has not changed. This reverse reaction was also observed in several other papers - in Denmark (Sorensen & Arveschoug, 2004) and by Karim (2010), on the empirical data of companies listed on the London Stock Exchange.

Increase in dividends amount may be perceived by shareholders from two opposite points of view. Positive meaning of this news is that the dividend increase brings additional income to shareholders, thereby reducing the risk of unprofitable investments in the securities

of a certain company. The negative effect is the loss of future shareholders' profits they could receive if the company has used all of its investment opportunities. Thus, analyzing the market reaction to the dividend announcements, we can conclude that shareholders of Russian companies consider future income from investments more important than the current dividends cash flows.

The results are also consistent with the theory of dividends irrelevance by Miller and Modigliani (1961) and the residual dividend policy. Companies pay dividends only when they are unable to make profitable capital investments.

For testing out fourth hypothesis about the difference of the reaction at the “good” news in different industries, we have divided our sample into several groups, according to their industry of operations. We have fulfilled the GRANK test, and the results are presented at Table 2.

Table 2

Test statistics results for different industries

Industry	CAAR GRANK	Student test, 10-% level of significance	Student test, 5-% level of significance
Chemicals	-3,04469*	1,943	2,446
Extraction of energy-producing minerals	-6,23283*	1,895	2,365
Extraction of other minerals	-3,32323*	2,015	2,570
Metals production and processing	-3,32356*	1,895	2,365

* - significant at the 5-% level of significance;

** - significant at the 10-% level of significance.

All the subsamples demonstrate the distribution, significantly different from normal, i.e. the news in these subsamples has the substantial effect for the companies' shares prices. Fig. 9 presents the behavior of CAAR for different industries.

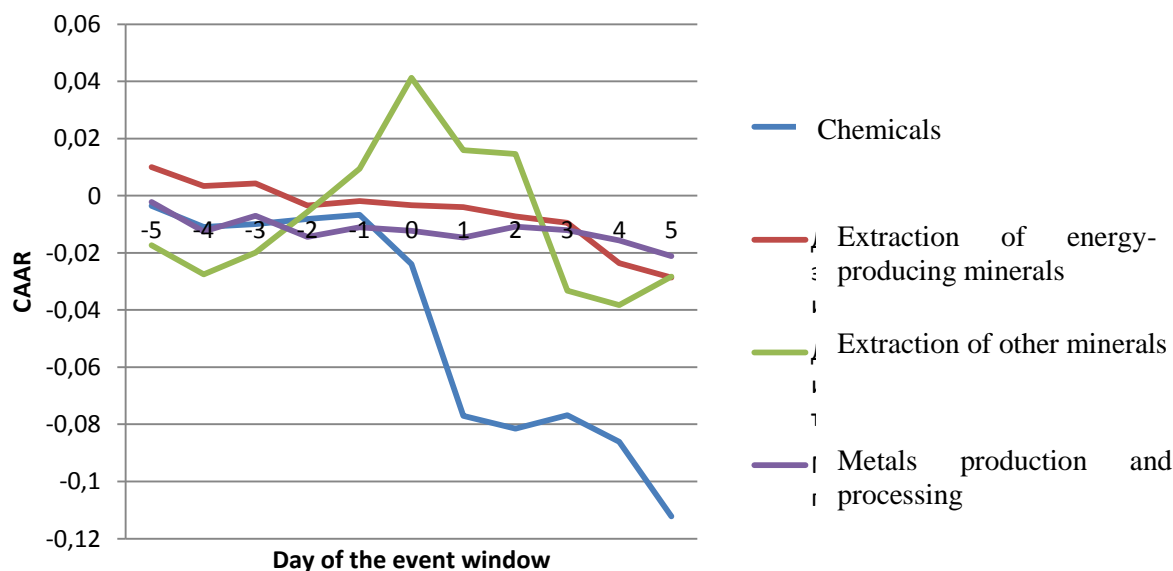


Рис. 9. Реакция различных отраслей экономики на увеличение дивидендных выплат

Thus, the fourth hypothesis of the research is confirmed. The most active negative reaction is observed at the chemicals production. CAAR of the companies of this industry has reached – 5.3% at the next day after the announcement. Companies in energy minerals production and metallurgy demonstrate also negative reaction of their shares prices to the “good” news, but the reaction is more discreet. Companies in mining of other materials also

demonstrate clear negative reaction (CAAR is diminishing from -2,5% at t=1 to -4,78 at t=3).

These results may be explained by the industries' life cycle. While oil and gas companies do not demonstrate high growth rates, chemicals production is growing rapidly in recent years. The opportunities of profitable investments in this sector of economy makes investors to be more optimistic to future profits than to present cash flows.

Conclusion

Further growth of competences of Russian investors, as well as capital market development causes the necessity to take into account more and more factors that affect investment and managerial decisions. When a company announces its intention to raise or lower dividends, it gives certain information signal to the market, by which participants judge on the investment potential of the company. Our research revealed that the market reaction to the announcements of dividend payments looks inversely to type of the news, that is, an increase in dividends negatively affects shares prices and reduces the market value of the company. Decrease in dividends, on the contrary, increases the prices. "Neutral" news does not affect the value of the companies. These results correlate with the theory of dividend irrelevance Modigliani and Miller, according to which the company first prefer to implement investment projects. Payment of dividends indicates the absence of such projects. Thus, investors consider dividend payments rather as the evidence that the company has no profitable investment projects, than as the evidence of its stability and investment appeal.

The evaluation of the market reaction to the "good" news associated with the sectoral structure of the market revealed that the shares of companies in the metallurgical and energy industry almost did not react to the announcement of the dividend increase, indicating that these industries has reached the maturity phase of their life cycles. Shareholders of these companies prefer dividend income, seeking to reduce their risks of investing in the slow-growing markets. Shares of companies operating in the chemical industry and mining minerals (except energy) show a clear negative reaction to the "good" news. These industries demonstrate the rapid growth, the companies have plenty of opportunities for the development and implementation of investment projects, and investors prefer future income to current cash exemptions.

The results obtained in this paper contribute both for companies and investors. The market value is considered as an indicator of the effectiveness of the company's managerial decisions. Knowing how the market may react to the news about the changes in dividend payments, the company may adjust its fair market value. Investors and other market participants, knowing the results of this study, can draw conclusions about when it profitable to buy or sell shares. The decisions on dividend policies should take into account the factors affecting the dividend payments, such as the company's investment opportunities, financial constraints, profitability, financial leverage, market-to-book ratio and other indicators.

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