STOCK MARKET REACTION TO DIVIDEND SURPRISES: EVIDENCE FROM RUSSIA

**Keywords and phrases:** Dividend surprise, stock market reaction, emerging markets, event study analysis, abnormal return

**Abstract:** The aim of this study is to empirically investigate an average reaction of emerging market of Russia to dividend surprises on the post-crisis period 2010-2014. Traditionally, unexpected dividend component has been measured in relation to the “naïve” model, which assumes that market players expect dividend levels to remain the same from one time period to another. The study proposes different, rarely applied in the dividend announcements literature analysts’ expectations-based approach to measure unexpected component of a dividend announcement. As a proxy for dividend surprise the difference between the actual dividend and the consensus analyst forecast is used. The research was conducted using event study methodology on the sample of Russian public companies, which regularly pay dividends. Obtained results of the study provide the grounds to make conclusions about the fact that Russian market on average reacts negatively to both good and bad dividend surprises. In this research the results are discussed from the point of view of markets efficiency, behavioral finance, economic and legal issues. The results of the study are of practical importance from the point of view of making investment decisions by the market players as well as from the side of the companies, which along with other factors should take into account market reaction when deciding upon dividend payments and enhancing their dividend policies.

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*Irina Berezinets*, Associate Professor, Finance and Accounting Department, Saint-Petersburg State University  
e-mail: berezinets@gsom.pu.ru  
*Yulia Ilina*, Associate Professor, Finance and Accounting Department, Saint-Petersburg State University  
e-mail: jilina@gsom.pu.ru  
*Marat Smirnov*, Senior Lecturer, Finance and Accounting Department, Saint-Petersburg State University  
e-mail: zavred_rjm@gsom.pu.ru  
*Liliia Bulatova*, Intern in Division Operational Improvement & Projects, Amadeus Data Processing GmbH  
e-mail: liliia.bulatova@amadeus.com

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Introduction

The effect of dividend announcements on stock returns is currently an active area of research. The main goal of a company management is creating value to its stockholders and to shareholders in particular. Indeed, market value of a company is considered to be one of the key indicators of company management efficiency and of the actions undertaken. Companies’ decisions in terms of free cash flow distribution between reinvestments and dividend payments are considered to be one of the most important parts of their financial policy. Nevertheless, the effects of dividend policy on the shareholders wealth are not obvious and of a high importance. More research is needed in order to investigate this phenomenon.

Traditionally, unexpected dividend component has been measured in relation to the “naïve” model, which assumes that market players expect dividend levels to remain the same from one time period to another. The present research proposes different, rarely applied in the dividend announcements literature analysts’ expectations-based approach to measure unexpected component of a dividend announcement. The goal of the research is to empirically investigate the average reaction of emerging market of Russia to dividend surprises.

Emerging markets are of a particular interest due to their quick growth, increasing level of liberalization and integration into a global economy. In the study the problem is examined from the side of markets’ reactions to dividend surprises, but not dividend changes per se. As a proxy for dividend surprise the difference between the actual dividend and the consensus analyst forecast is used. The idea behind this approach is that market participants’ expectations are assumed to be built on the basis of publicly available forecasts about companies’ financial results and actions. The relevance of the research can be reasoned by the following:

1. Novel, rarely applied in the dividend announcements literature analysts’ expectations-based approach;
2. Post-crisis shifts in investors’ behavior, which have triggered increased academic interest to behavior errors investigation;
3. Potential to fill the gap in the study of emerging markets in the context of dividend announcements;
4. Practical implications of the research from the point of view of dividend policies of the emerging markets companies.

The research was conducted using event study methodology on the sample of Russian public companies, which regularly pay dividends. The time period of the research is 2010-2014. Obtained results of the study provide the grounds to make conclusions about the fact that Russian market on average reacts negatively to both good and bad dividend surprises. The results of the study are of practical importance from the point of view of making investment decisions by the players of the markets as well as from the side of the companies, which along with other factors should take into account market reactions when deciding upon dividend payments and enhancing their dividend policies.

Research Problem Statement and Literature Review

The importance or irrelevance of a company’s dividend policy is widely discussed both among researchers and business practitioners. On the one hand, the supporters of dividend payments claim that dividends signal the market about the financial health of a company and its confidence about the future profitability. In the most recent paper (Liu, Chen, 2015) the researches provide evidence in favor of this and additionally investigate that dividends are signaling future equity-scaled earnings rather than future asset-scaled earnings, which can be corresponded to the fact that equity investors are the primary target to which the management team wants to signal about firm earnings prospects. Supporters of the opposite point of view reckon that the fact that a
company pays dividends may signal about the lack of investment opportunities and attractive projects.

The majority of academic studies on market reaction to dividend announcement are mainly to do about checking the signaling theory in practice. According to signaling theory, managers of a company use dividend payments as a signal about its future profits. Taking other parameters fixed dividends growth signals investors about stable market position of the company and its profitability growth in the following period. As a result, market reaction on the dividend announcements is reflected in the company’s stock price.

Classical work devoted to the consideration of the market reaction to the announcement of the dividend payment is the study by (Aharony, Swary, 1980). It was found by the authors that neutral announcements, regardless of the fact whether they were preceded before or after the earnings disclosure, do not affect the company's stock return, since the value of excess return, as well as the accumulated excess return, does not significantly differ from zero. In the case of positive announcements about increased level of dividends the market responded positively to such type of event. Finally, negative announcements about decreased dividends resulted in negative abnormal returns. It should be noted that both in the case of increased and reduced dividend level, market reaction to correspondent event type was similar regardless of the fact weather the dividend announcement preceded or followed the earnings announcement.

Talking about Russian market reaction to dividend announcements, it should be pointed out that in the studies (Teplova, 2008), (Rogova, Berdnikova, 2014) and (Berezinets et al., 2015) quite unconventional results were obtained. The researchers used different time intervals in their studies – pre-crisis period in (Teplova, 2008) and after-crisis period in (Rogova, Berdnikova, 2014) and (Berezinets et al., 2015) – and got the same unconventional results in case of Russian market reaction to dividend increases. The studies have shown that the Russian market on average reacts negatively to positive dividend news. Such interesting findings do not coincide with traditional signalling theory. In another study of the Russian market done by (Teplova, 2011) different findings were obtained. It was investigated by the author that during the period from the mid of 2009 to the mid of 2010 Russian market reacted positively to announcements on dividend reductions. However, separate study on the subsample of oil&gas firms has shown that investors of this industry on average reacted negatively to the dividends cut announcements.

In the studies of market reactions to dividend announcements the authors assume that investors expect dividends to be unchanged compared to the previous period and suggest that unexpected part to which market reacts or does not react is the difference between the announced dividend and the previous dividend. According to this, the researchers classify the announcements into good news, bad news and neutral news. However, many researchers argue that it is not fully correct to take dividend change as a proxy for dividend surprise. They explain it by the fact that expectations of the market players about forthcoming dividend are formed by the analysts’ forecasts but not by the previously paid dividend. The researchers who are on the side of using consensus dividend forecasts as the natural estimate of dividend surprise call the traditional approach to be “naïve”. There is an element of truth in such criticism: the time passes by, new information is revealed to the market in the form of the forecasts, the market absorbs this information and reflects it in the stock price, which means that an unexpected component is now on the difference between the announced dividend and the forecasted one.

One of the most recent articles, in which dividend surprises are determined as the difference between the announced dividend and the average analyst dividend forecast, is (Andres, Betzer et al., 2013). In the paper the authors investigate German market on the sample of 150 companies included in the DAX, MDAX or SDAX which were actively traded from 1996 to 2006. The authors obtained the information on dividend consensus forecasts from the I/B/E/S database and used them as a proxy for the market’s dividend expectations. It has to be mentioned that the authors used a consensus estimate, which refers to the last month before the dividend announcement. In case of
unavailability of the last-month consensus forecast the one which was made up to three months before was used. The researchers studied reaction of the German market to the three types of surprises: good surprise, bad surprise and no surprise. The authors divided the entire dividend surprises sample into three subsamples in accordance with the following rule: if the difference between the announced dividend and the analysts’ consensus forecast is greater than +5% (smaller than -5%) the surprise is classified as positive (negative). Otherwise the news is classified as no surprise (in case the actual dividend lies within +5% of the mean forecast). The researchers got the final sample of 921 observations. The authors conduct an event study using tree-days event window and 120-days estimation window. The normal return is estimated using classic market model. The results have shown that positive surprises as well as no-news events are associated with a significantly positive announcement day abnormal return and negative dividend surprises trigger a negative share price reaction. Along with that positive surprises have slightly more pronounced positive impact on the stock return than no-news events. The researchers also conduct the study using naïve expectations model and make a conclusion that sorting by dividend changes and dividend surprises yields different results. However, when the researchers control for dividend surprise it turned out that dividend change has no explanatory power for the abnormal return. The authors build the econometric model in which CAAR is the dependent variable; change in the dividend yield, dividend surprise, industry dummy and year dummy are included as independent variables. The results have indicated that the coefficient on the dividend change is statistically insignificant, whereas the coefficient on the dividend surprise variable is statistically significant at 1% level. To sum up, with the reference to the results the researchers make conclusion that studies of dividend announcements should take market expectations into account and thus should consider dividend surprises rather than dividend changes.

There are also earlier papers, which consider analyst forecasts in the context of different markets’ reactions to dividend announcements. The study by (Fuller, 2003) is devoted to the investigation of the relation between informed trading and market reaction to dividend signal. The author considers only dividend increases and tests the hypothesis that the announcement effect of an increase in dividends is positive. The author additionally states the hypothesis that prior to the signal, the larger the buy demand relative to the sell demand, the smaller the price reaction to an unexpected dividend increase. Empirical test was conducted on the sample of the NYSE-listed companies, which announced dividends between 1994 and 1998. The author used 40 days event window and 220 days estimation window for the event study; expected return was estimated using market model. The event study has shown the following result: the average abnormal return on the announcement day is 0.40% and statistically significant at 1% level. The empirical results also confirm that the more informed the trading in a firm’s stock is, the smaller the price reaction to a dividend increase. With the increase in the number of informed traders on the company’s stock, the private information is reflected more precisely in the price and thus the importance of the signals made by the firm to the market decreases (e. g., dividend or earnings announcements).

The paper (Wooldridge, 1983) investigates the topic further and analyses the impact of dividend surprises not only on common stock but also on preferred stock and bonds, - along with the signaling effect of dividends the author studies the wealth transfer effect. The sample consisted of 225 companies traded on NYSE over the 1970-1977 period. The dividend forecast of Value Line made immediately prior to the announcement was used as a proxy for the market expectations. As far as dividend surprises had a similar directed impact on common stock value, preferred stock as well as bonds value, the author concludes that signaling rather than wealth redistribution is the primary factor influencing security prices.

The paper (Bar-Yosef, Sarig, 1992) proposes a new approach to estimate dividend surprises. The authors compare the priced-based measure of surprise to the more commonly used model-based measures. The researcher proposes another approach: to measure dividend surprises from observed stock and option prices. The author has shown that the proposed price-based measure of the dividend surprise incorporates more information than common model-based measure. However,
it does not mean that the model-based measures are bad estimates of dividend surprises, rather it means that there is another approach which provides with the dividend surprises estimates that are on average more close to the actual dividend surprises.

The most recent research on the subject of dividend surprises impact on stock returns is conducted by (Amin, Dutta et al., 2015). The authors not only investigate the market reaction but also build empirical model in order to test whether aggregate institutional ownership along with the shareholders’ investment horizons can explain the variations in CAR. The researchers conduct the study on the sample of NYSE-listed dividend-paying firms over the period 2002-2012. The investigations point out that there is no market reaction to dividend announcements made by the US companies in the dividend-reappearance era (2002-2008). In addition, the researchers investigate significant and negative relation between institutional investors presence in the ownership structure and information content of dividend announcements proxied by CAR.

Dividend surprises interest researchers along with the earnings surprises. There is a study (Conroy, Eades, Harris, 2000) in which the authors examine the pricing effects of simultaneous dividend and earnings announcements in Japan. The final observations sample includes 3890 announcements over the period from 1988 to 1993. The results of the empirical study reveal to the authors that in Japan earnings variables have greater explanatory power of stock price movements compared with the dividend announcements.

To sum up, the authors of the researches, which were reviewed in this section agree upon the fact that market expectations play an important role in share price reactions to dividend announcements. The naïve model suggests that the unbiased estimate of dividends to be paid in the next period equals the amount of dividend paid by the company in the previous period. However, there is a number of studies in which the authors criticize naïve approach due to the fact that expectations of the new dividend are formed by the forecasts made on the market. The time passes by and expectations change with time. Thus, in this paper we switch from the naïve model to the dividend surprises approach in order to study the reaction of emerging market of Russia to dividend announcements from the different viewpoint. In order to build a bridge from theoretical part to the empirical section, the analysis of the Russian stock market and dividend policies of Russian companies is conducted in the next section of the paper.

Stock Market and Dividend Policy in Russia

Emerging markets themselves constitute an environment which is substantially different from that of the developed markets. This environment is determined by institutional, legal, economic, social, political, cultural and other features. Compared to other BRICS stock markets, Russian capital market is quite young and the small in terms of total capitalization. In particular, capitalisation of the Russian stock market at the beginning of 2014 was less than $800 bln. For comparison, capitalisation of the BSE India stock exchange at the same time was approximately $1,200 bln, of Shanghai stock exchange – near $2,500 bln. For all that, the number of stock issuers on the SSE exceeds 1000 companies, on the BSE – exceeds 5000 companies and on the Moscow SE the number of listed companies is less than 300. The following graph illustrates capitalisation of the stock markets in BRICS countries. It is noticeable that the Russian market is inferior to all BRICS markets in terms of total capitalisation. (Fig. 1).

Russian stock market was developing quite rapidly since 1994, when massive voucher privatization has taken place. By the year 2005 the capitalization of the Russian market reached $600 bln in many respects due to the high return on operations, which was taking place along with high volatility of the Russian market (Goriaev, Zabotkin, 2006). Established in 1991, the Russian stock market has attracted a large number of both home and foreign investors. Nevertheless, it is obvious that along with its high potential the Russian market contains a substantial amount of risk. Relatively short history of the market is rich of significant economic and political milestones, which influenced substantially the mood and behavior of investors.
The most sizeable characteristics of the Russian stock market are its low liquidity and high concentration in terms of capitalization. From the following graph it is noticeable that the liquidity of the Russian market is the lowest among the BRICS countries: in 2013 the yearly turnover expressed in USD to GDP was only near 11% (Fig. 2). The ratio of total stock turnover in USD to total market capitalization in Russia is also low: only 30% compared to, for example, 152% in China (Fig. 3). In addition to this evidence of poor liquidity of the Russian stock market another one can be added: among 260 listed companies which ordinary shares are traded on the MOEX by the end of 2013 only 32 ordinary stocks were considered to be liquid in accordance with the Statute of liquidity criteria № 06-25 from 07.03.2006. These figures support the fact that Russian market suffers from low liquidity, which negatively impacts fair stock pricing. In particular, low liquidity of the market is one of the reasons of the undervaluation of many Russian companies’ shares due to the lack of the objective criteria of valuation. Some analysts estimate that, for example, the shares of the consumer sector companies are priced 25-50% lower than that of the companies of other BRICS countries (Consumer sector in Russia…).
Talking about market concentration, it strikes the eye that in Russia the share in total market capitalization, which belongs to the top-10 most capitalized domestic companies, is twice higher than that in India or China: 62% in Russia against 31% and 33% in India and China respectively (Fig. 4).

Another peculiarity of the Russian stock market is the fact that there is an industry bias towards the oil&gas, metallurgy and power industries: among the top-10 most capitalized companies 7 companies represent oil&gas industry and one company is from the metallurgy sector.
In the year 2013 near 51.8% of the total Russian stock market capitalization fell on the oil&gas industry, 15% of the capitalization was attributed to the financial sector, 7.7% - to metallurgy, 6.5% - to telecom industry and 4.6% to the electric power industry (Russian capital market 2013…).

Among others, one of the specific characteristics of the Russian market is the dependence of its indicators on the commodity market prices, especially on oil prices. Other characteristics of the Russian market include high volatility of the trading volume, substantial price anomalies and dynamics of the market (Goriaev, Zabotkin, 2006; Kinnunen, 2013).

It should be highlighted that the general mood of the Russian investors and their trust was substantially undermined during the global financial crisis of 2008-2009, after which the market has not fully recovered mainly due to the impact of unfavorable economic and political factors. Thus, in 2001-2003 the RTSI Index was growing (Fig. 5) despite the slowdown on the US market along with financial and political instability, which put the pressure on the Latin-American stock market. The YUKOS case which undermined the faith of foreign investors in the Russian market, put the pressure on the market. Despite this, because of growing stock price of the Russian blue chips the market stayed in plus following the trading results of the year 2003 (Lucey, Voronkova, 2008). After the year 2005 the RTSI was growing up to the moment when the global financial crisis occurred. From the behavior of the RTSI it can be marked that after the year 2008 the market was recovering until March 2011 but still has not reached the pre-crisis maximum value of 2487.98 index points: the peak after-crisis RTSI value was on the 4th April 2011, when index equaled to 2092.32 index points.

Figure 5. Dynamics of the RTSI index, 2000-2014
Source: Finam

After April 2011 the market has been showing inferior trend and the downfall was deepened against the background of the latest occasions of 2014 (oil price drop, weakening of the RUB etc.), when the slump in Russian stock prices has taken place. During 2014 the total market capitalization of Russia has dropped by 50.1% (Annual query tool…) and its performance was considered by the Bloomberg analysts to be the worst in the whole world (Russian stock market demonstrated…).

If to consider the legal framework in Russia, it should be highlighted that in the latest years a few changes in the legislation have taken place. Firstly, on the 5th November 2013 the president has announced that dividends of the companies, which do not fully and properly disclose the list of owners, will be taxable on the rate of 30%. The authors of the legislation count on the fact that this
change will increase the transparency of the ownership structure of the Russian businesses. Without this, the dividend income in Russia is the subject to taxation on the rate of 9% for both individuals and legal entities and 15% for non-residents (Tax code of Russia). Talking about capital gains taxation, it has to be said that in Russia there is no capital gains tax rate per se. However, in accordance with the articles 212 and 224 of the Russian Tax code there is a 13% tax rate on material gain, which is defined as the difference between the market price of the stock and the actual costs associated with its purchase. For legal entities the tax rate equals to 0%. This means that under the Russian tax code for individuals it is more beneficial to receive gain in the form of dividends than from the capital growth. For the legal entities, which possess the shares more than five years (the 0% tax rate is applicable only in this case) the situation is opposite: they are more interested in receiving capital gains, all other factors set fixed.

Secondly, in November 2012 the Government of Russia has introduced the new norm of dividend payments of state-owned companies. From that point of time the companies in which state is a stockholder have to pay not less than 25% of earnings in the form of dividends. Currently additional amendments are under consideration: minimum dividend payout ratio is being discussed to be increased to the level of 35%; additionally, the matter of dividend payout calculations based on IFRS reporting but not RAS is under discussion. Finally, on the 1st January 2014 the changes to the federal law №282 have come into force. According to the new rules, the list of stockholders who have a right to take part in the annual shareholders meeting should be defined first and after that the list of shareholders who have a right to receive dividends should be prepared. Dividends register has to be closed only after the decision about the dividend payments is taken on the shareholders meeting. However, this it should be closed no later than in 20 days after the meeting. For listed companies the record date has to be stated not earlier than 10 days and not later than 20 days after the shareholders meeting. Moreover, since 1st January 2014 the dividends should be paid not later than 25 days after the record date. Before the year 2014 dividend payments were made within 60 days after the resolution of the annual shareholders meeting in case the other was not prescribed by the dividend policy of the company. However, in practice the period was usually extended up to 6 months.

Recently-enhanced laws have improved the situation in Russia with regard to securities regulation and the investors’ rights protection through legislation. For example, the changes in the federal law №282 are favorable for investors because, firstly, they shorten the period of time during which one has to possess the shares in order to get the right to receive the dividends and, secondly, they shorten the period during which the dividends themselves have to be paid. This could enhance the liquidity in the market and increase the attractiveness of the Russian market in terms of the legal rights protection.

It should also be noted that in Russia state plays an important role in economy. Russian state does not only carry out regulation of various economic processes but also participates in the activities of the enterprises through holding their shares. In a number of industries the degree of state presence as a shareholder is substantial. The strongest position of the state is in the transport sector, in which the stake of the state reaches 73% (Gosudareva dolya, 2015). For example, the “Russian Railways” company is fully owned by the state. Other companies, in which the state is a controlling shareholder include, for example, OJSC “Gazprom” with the state share of 50.23% (Gazprom: Equity capital structure), OJSC “Aeroflot” with 51.17% (Aeroflot: General information…), OJSC “Sberbank of Russia” with 52.32% (Sberbank: Information about persons and entities…), “VTB Bank” with 60.93% (VTB: Shareholder structure), etc. There is also a considerable presence of state in the electric power industry (35% on average) and in the machine engineering industry (near 17% on average) (Gosudareva dolya, 2015). The fact that the state is holding shares of many companies in different sectors can be the evidence for more close control for the free cash flow distribution in these companies.

Now let us analyze the dividend policy of Russian companies. Statistics of dividend payments made by Russian companies points out the fact that the majority of dividend paying companies pay
dividends once a year, without interim dividend payments. For example, in the year 2013 only 28 companies paid interim dividends once, 4 companies – twice and 2 companies 0 three times. The total number of dividend paying companies equaled to 117 (Russian capital market 2013…). The total share of earnings, which is distributed among stockholders, is historically lower in Russia compared to other markets, both developed and emerging.

In general, after the financial crisis 2008-2009 there was a positive growing trend in average dividend yield of the Russian stocks (Fig. 6). By the year 2014 the average annual dividend yield reached the level of 6.1%, which is, how analysts explain, in many respects due to the new norms of dividend payouts for the government-owned companies (25% of earnings), which have come into force from November 2012.

Figure 6. Average annual dividend yield of the companies from MICEX Index, 2003-2013
Source: Finam

From the above graph it is striking that in the year 2009 the average dividend yield on the shares of Russian companies have fallen dramatically (4.0% in 2008 against 1.1% in 2009). This fact is mainly due to the global financial crisis. In 2009 many companies have refused to pay dividends, which is explained by the fallen profits of the companies as well as by the instability in financial condition and by the uncertainty associated with the future economic situation in Russia. In 2007 the total dividend payments of 62 largest companies in terms of capitalisation equalled to approximately $21.7 bln, in the years 2008 and 2009 the total dividend payments have fallen down to $19.2 bln and $16 bln respectively. However, later on the figures have recovered and exceeded the pre-crisis levels: in 2010 and 2011 the total dividends of the 62 companies equalled to $22.3 bln and $28.8 bln respectively (Finam: Events and markets) (Fig. 7).

Despite the recessionary trends, which have taken place in the year 2014, in 2015 the majority of the companies have increased dividends in comparison with the previous year. In absolute terms, following the results of the year 2014 the total recommended by the Russian companies dividends have increased by 20.3% up to 929.7 bln RUB (Finam: Dividends-2014…). The total dividends paid by the Russian firms in 2014 were near 770 bln RUB.

All in all, the latest announced dividends show that the dividend yield of the Russian companies varies in a very wide range: from 0.1% on the stock of “Inter RAO” to 21.9% on the shares of “Irkutskenergo” (the company have announced the largest dividend in its dividend payments history) (Finam: Dividends-2014…).
Figure 7. Total dividend payments of 62 largest Russian companies in 2007-2011. Source: Finam

The statistics of dividend payments by Russian companies also points out the high level of concentration: in 2013 10 companies accounted for 88.1% of the total dividend payments (Fig. 8).

Figure 8. The share of 10 top companies in the total dividend payments in 2013 Source: Finam

The most regular dividend payers are the companies of oil&gas industry, power generating sector and telecommunications. The history of dividend payments made by Russian companies indicates that the oil&gas companies account for almost 83% of total annual dividend payments
(Finam: About markets). The regular payments of these companies can be explained by the substantial need in attracting investments from home market and abroad. Thus, the oil&gas companies work in the direction of producing the image of ones with regular dividend payments.

Low dividend yield is still remains among the companies of consumer sector. This is mainly due to the fact that the majority of the companies in this industry are on the stage of growth and, thus, need heavy investments in growth. The average annual dividend yield on the shares of consumer sector companies does not go beyond the level of 1-2% (Dividends season starts soon…). With all this almost 90% of total dividend payments of the companies from consumer industry fall on the “Baltika” company. The part of the consumer sector companies totally refuses to pay dividends (e.g., “Dixy” and “Razgulay”).

Companies of the banking sector are also not characterized by the high dividend yield. The dividend yield on the stocks of the banks on average does not exceed the level of 1% (Dividend monitor-2012). Such a tendency can be explained by the high level of liquidity risk attributed to the banking sector and by the significant sensitivity of profits to cyclical changes in the economy. For example, in the year 2014 the profitability of the Russian banks was undermined substantially due to the recession, which made the Russian Federal Property Management Agency to consider the temporal loosening of the new minimum dividend requirements (which is 25% of earnings) for government-owned banks (Gazprom bank: September banking sector overview, 2014).

One of the most unstable dividends are the subject of the companies of the energy retail sector. Analysts connect this feature with the high level of accounts receivable of the energy retail companies and, thus, with the high risks of non-payments from the side of counteragents. This characteristic of the energy retail companies means uncertainty of the future cash flows, which is one of the factors of unstable dividend policy of the companies from this sector. However, the analysis of dividend payments made by Russian companies has shown that the companies of the energy retail sector pay dividends quite regularly.

To sum up, it can be judged from the above analysis that Russian companies are currently on the stage of enhancement of existing dividend policies or on the stage of forming effective dividend policies, which can be considered as one of the instruments which the companies use in order to increase their attractiveness for investors.

Research Hypotheses and Methodology

Before carrying out the event study on the sample Russian companies the following hypotheses were formulated:

H1: good dividend surprises trigger positive excess stock returns;

H2: bad dividend surprises lead to the occurrence of negative excess stock returns.

In the hypotheses formulated above under excess stock return it is understood the portion of a stock’s return that is not explained by the overall market’s rate of return.

These hypotheses were formulated with the reference to the dividend signalling theory, according to which higher-than-expected dividends should be considered as a positive signal to the market. Event study is a widely used methodology for testing signalling theory on different markets. This methodology was used in classical papers (Aharony, Swary, 1980; Divecha, Morse, 1983) as well as in more recent studies (Andres et al., 2013; Vieira, 2011; Dasilas, 2011; Karim, 2010).

First information about recommended dividend appears at the day of board of directors meeting, which is why particularly this day but not the one when dividends are actually paid is considered in the following study as an event date. All the dividend announcement dates were obtained from the Thomson Reuters Eikon Database. Only annual cash dividends were considered in the research.
The analysis of the researches, which are based on the event study, have shown that long event windows are usually been chosen, when the reaction to substantial events, which potentially have a long-term effect, is examined (e.g., M&A announcements). Namely, in the paper (Agrawal et al., 1992) the researchers have selected a five-years event window in order to investigate the market reaction to M&A announcements. Shorter event windows are selected in the cases when the effect of an announcement is potentially short-term. Dividend announcements belong to such type of events. In case of dividend announcements consideration, it is accepted to select an event window, which is not longer than 41 days (Teplova, 2008). Some authors use 21-days event window (e.g., Aharony, Swary, 1980; Irum et al, 2012; Joshipura, 2009); others consider shorter event windows of 11 or even 3 days (e.g., Andres et al., 2013). Based on the literature review and the nature of the event it was decided to choose the 11-days event window in the current study (5 days before and after the event).

The choice of estimation window was also made on the basis of literature review. Peterson (1986) in his paper devoted to the event study methodology discussion has indicated that average estimation window lies in the interval from 100 to 300 days. The analysis of academic papers has shown that, indeed, in most cases researchers select the estimation window, which is from 100 to 250 days. In the research (Aharony, Swary, 1980), the estimation of model parameters is conducted on the time period of 120 days. In the paper (Akbar, Baig, 2010) the length of the estimation window also equals to 120 days. However, some researchers use longer estimation periods in their works. For example, Taneem (2011) uses 250-days estimation window, Akben-Selcuk and Altıok-Yılmaz (2010) consider a 180-days event window. In the present study the estimation window of 180 days has been chosen: from the day T=-185 to the day T=-6.

For normal return estimation in the present study market model is used:

\[ R_{it} = \alpha_i + \beta_i R_{mt} + \mu_{it}, \text{where} \]

\( R_{it} \) – period-t return on security i;
\( R_{mt} \) – period-t return on market portfolio;
\( \mu_{it} \) – the zero mean disturbance term.

As a market portfolio return usually market index return is used. In the study MICEX index was selected. It is important to emphasize the fact that daily market index returns, as well as the returns on stocks, were obtained in the logarithmic form.

Normal daily return in the event window across the whole observations sample for all three markets was calculated by substituting the market index daily return in the estimated market model. After normal returns estimation abnormal returns were calculated for each day in the event window around each observation:

\[ AR_{it} = R_{it} - E(R_{it}), \text{where} \]

\( AR_{it} \) – period-t abnormal return on stock i;
\( R_{it} \) – period-t observed return on stock i;
\( E(R_{it}) \) – expected (normal) return on stock i.

For calculation of observed returns data on stock closing prices for each trading day was used.

As far as in the study panel data was used, aggregation of abnormal returns through time and across securities was conducted in two steps: first, average abnormal returns across a given group of surprises for each day in event window was measured for a fixed calendar year. After that average five years abnormal return was calculated for any day t within the interval of five days before to five days after an event date. After that cumulative abnormal returns were measured for each event type for any day t within the event window.
In order to test the obtained results for significance t-test was conducted. It is assumed that returns are normally distributed. On the basis of the obtained results, the inferences about average abnormal returns significance for each group of surprises for the Russian market were drawn.

**Data and Sample**

The research is conducted using event study methodology on the sample of Russian companies. Russian stock market has a comparatively short history; its features are not fully studied yet. This means that another study of the Russian market will at least partly contribute to better understanding of its drivers and investors’ behaviour. Moreover, market analysis in the previous section has indicated that many companies are working towards enhancing their dividend policies for the purpose of increasing their attractiveness for investors, both domestic and foreign. This is crucially important at the present stage of economic development, when huge investments are needed.

Initial sample consisted of 61 companies, which ordinary shares were actively traded on the Moscow stock exchange (before 2012 – on MICEX) and which regularly paid dividends from the year 2010 to 2014. The crisis years 2008 and 2009 were not included on purpose – in order to avoid biases in the results. Due to the fact that the crisis events were echoed in 2009, in the research were included only those dividend announcements of the year 2010, which were made by the companies, which profits have increased in the year 2009 compared to 2008 or the ones which profits has not fallen by more than 20%. The year 2014 was also very eventful and economically difficult, especially for Russia. Because of that the dividend announcements, which were already made in March-April 2015 (following the financial results of the year 2014) were not included in the study.

Companies that had interim dividends payments, split/reverse split of shares, or belong to financial sector, were excluded from the initial sample. As a result, taking into account the above criteria, the final sample of 40 Russian companies was formed from the original sample of 67 companies. This sample is diversified by industry, which means that more fully reflects the market as a whole. The final sample included companies from 13 different sectors. The main share in the sample fell on electric power companies (25.00%), the oil and gas industry firms (17.50%), as well as the telecommunications sector (12.50%). Such a shift in the direction of these industries is due to the peculiarities of the Russian market, namely, the dominant oil and gas sector, the electricity industry and the telecommunications industry. Companies operating in these sectors regularly pay dividends, which explains their large share in the total sample. The remaining share of the sample is fairly evenly distributed among the other sectors (2.5-7.5%).

After forming the sample of companies the dividend announcement selection has been made based on the fact that in the event window no other significant events should be present. Those dividend announcements, which intersected with earnings announcements, were also excluded from the set of observations, because both events bring significant information to the market.

After the selection of dividend announcement payments the corresponding dividend forecasts were found. In Russia there is no single common source of dividend forecasts. Different brokerage companies and investment groups, such as Prime, Sovlink, Olma, Energokapital, etc., on the regular basis publish brokerage reports, in which include the dividend forecasts. In general, researchers agree that I/B/E/S Database can be considered as reliable source of historical consensus forecasts. Thus, in the paper (Brown et al., 2008) the author has shown that I/B/E/S dividend forecasts on average can be treated as an accurate estimate of actual dividend evidenced by a low forecast error. Moreover, in the study (Andres, Betzer et al., 2013) the authors check the I/B/E/S forecasts for consistency and find no systematic bias in the data. That is why all available dividend forecasts for the Russian companies from the final sample were downloaded from the I/B/E/S database. All the gaps in consensus forecasts data were closed by calculating the average forecasts made by the brokerage companies.
Another issue arises here: which consensus forecast to use? In the research (Andres, Betzer et al., 2013) the authors in 93% of their observations use the consensus estimates which refer to the last month before the actual dividend was announced. In 6.8% of observations the researchers use earlier forecasts, but which were made not earlier than three months before the dividend announcement. Observations, for which no dividend forecasts were available for the three months preceding the dividend announcement, were excluded from the study. In this research the same procedure of selecting analysts’ consensus forecasts was used: from the I/B/E/S database the forecasts dated the previous month relatively to the actual dividend announcements were downloaded; in case of absence of such forecasts the ones which were made within the three months preceding the dividend announcement were used. Observations are excluded when no dividend forecast were available for the three months preceding the announcement.

As a result of the dividend announcements and corresponding dividend forecasts selection, 137 observations attributable to the Russian market were included in the study. In order to study the market reaction to the multidirectional dividend surprises - the "good news", "bad news" and "no news" - the entire set of announcements was divided into three subsets according to the type of event. The dividend change of less than 5% was considered as unchanged dividend (“no news” event). Dividend announcements were defined as “good news” (“bad news”) in case the announcement is more than 5% above (below) the analysts’ consensus forecast. As a result, the number of good news attributable to the Russian market in total equals to 49 observations, bad news - 65 observations and no news - 23 observations. The number of “no news” observations is too small in order to report reliable results, that is why in this study only “good news” and “bad news” will be considered (114 observations in total).

**Estimation Results**

In this section results of the estimation will be discussed. Firstly, let us investigate the reaction of Russian market to dividend surprises. We start with “good news” surprises. In Figures 9 and 10 the Average Abnormal Return (AAR) and the Cumulative Average Abnormal Return (CAAR) graphs are shown within the event window.

![Figure 9. AAR behavior in event window (“positive surprise”)](image)

![Figure 10. CAAR development in event window (“positive surprise”)](image)
Testing of the Hypothesis 1 showed that average abnormal return significantly differs from zero on days $t=-1$ and $t=5$. On these days average abnormal return is negative, which means that the Russian market reacts negatively to the dividend surprises of a positive nature. This result does not give the grounds to accept the research hypothesis that market reacts positively to “good news”. From the AAR graph it is noticeable that there is a downward spike on day $t=-1$ as well as on day $t=5$; the CAAR exhibit illustrates a pronounced negative trend in its development: by day $t=5$ of the event window CAAR takes on $-1.0765\%$ value.

Despite the fact that this result does not coincide with the signaling theory of dividends, it corresponds with the previously done studies, in which naïve expectations model was used. Similar unconventional results for the Russian market were received in the studies (Teplova, 2008), (Rogova, Berdnikova, 2014) and (Berezinets et al., 2015). Moreover, negative reaction to dividend news of a positive nature was investigated for other capital markets: by (Sorensen, Arveschoug, 2004) for the Danish market; by (Karim, 2010) for the UK market. Similar negative reaction to “good” dividend news was received in this study, where analysts’ expectations-based approach instead of naïve expectations model is used.

Next, reaction of the Russian market to “negative surprises” is considered. Below average abnormal returns and cumulative average abnormal returns are presented in the form of graphs (Fig. 11, 12).

Figure 11. AAR behavior in event window (“negative surprise”)

Figure 12. CAAR development in event window (“negative surprise”)

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Testing of the Hypothesis 2 showed that average abnormal return significantly differs from zero on day $t=1$. As one can see, Russian market reacts negatively to “bad” dividend surprises because AAR on day $t=1$ has a negative sign. From the AAR graph one can notice a down-spike on day $t=1$: the AAR changes in value from $0.3510\%$ on day 0 to $-0.4923\%$ on day 1. The CAAR graph points in favour of negative reaction too: starting from the day 1 CAAR has a downwards trend and by the last day of event window reaches the value of $-1.3971\%$. This result corresponds with the signalling dividends theory. On the basis of the results the second hypothesis of the research is accepted. The same conclusions were drawn in the previous “naïve” studies for the Russian market: (Teplova, 2008), (Rogova, Berdnikova, 2014) and (Berezinets et al., 2015).

It is interesting to mention that the shapes of the CAAR graphs in both cases (“positive surprises” and “negative surprises”) are alike. Nonetheless, the reaction to the negative surprises is more strongly pronounced than to the positive surprises: the respective CAARs on day $t=5$ are $-1.3971\%$ and $-1.0765\%$ (Fig. 13).

![Figure 13. CAAR development in event window (positive and negative surprises)](image)

On the above graph CAAR$_1$ – cumulative abnormal return in case of negative surprises; CAAR$_2$ - cumulative abnormal return in case of positive surprises.

Thus, the results, obtained for the Russian market, indicate that on average dividend surprises, independently of their character (positive or negative), have a negative impact on stock returns of the Russian companies. For both types of events significant negative abnormal returns are observed.
On the basis of the results of estimation the first hypothesis that stock returns react positively to good dividend surprises is not supported, whereas the second hypothesis that bad dividend surprises lead to the occurrence of negative excess stock returns is accepted.

So, our study on the sample of 40 Russian companies from 13 industries gives the following results:

- Positive dividend surprises lead to occurrence of negative excess returns on the stocks of Russian companies;
- Negative dividend surprises are associated with negative abnormal returns on the Russian stocks.

Negative reaction of the Russian market to positive dividend surprises along with other factors can be explained by the sample characteristics. Significant share in the total sample of Russian firms falls on the companies from oil&gas as well as from utilities industries (42.5% in total of the final sample). Stocks of the companies from these sectors are traditionally perceived by the shareholders to be “cash cows”, from which considerable dividend yields are expected. That is why it is reasonable to conduct separate study on the two subsamples of firms: the first is formed of the companies from oil&gas and utilities sectors; the second – from the companies of all other industries in the sample. The results of the event study for the two named subsamples indicate the issue that in fact negative reaction to positive dividend surprises is observed only in case of “other industries” subsample. Impact of dividend surprises on the stocks of Russian companies from oil&gas and utilities sectors appeared to be positive: the abnormal return on the day t=0 is statistically significant and has positive sign. The described findings are visually demonstrated in the form of CAAR graphs for two cases – oil&gas and utilities (Fig. 14) and other industries (Fig. 15).

![Figure 14. CAAR behavior in event window (“positive surprise”, oil&gas and utilities subsample)](image1)

![Figure 15. CAAR behavior in event window (“positive surprise”, other industries subsample)](image2)
The additional results of the study, conducted on the two subsamples of the Russian companies, support the fact that dividend surprises are perceived positively by the holders of the stocks of the companies, which belong to the oil&gas and utilities sectors. On the contrast, reaction of the Russian market to positive dividend surprises, associated with the companies of other sectors, is negative.

Results of the study of the Russian market show that there are some signs of markets inefficiencies since there are abnormal returns of the stocks around dividend surprise dates. The fact that there is a presence of excess returns points out that the market of Russia is closer to the weak form, according to the classification of (Fama, 1970). This means that not all publicly available information is instantly incorporated in the stock price, which leaves the opportunity for investors to benefit from abnormal price movements in the short-term, around the dividend surprise date.

**Conclusions**

The research has given the grounds to investigate average reaction of the Russian stock market to dividend surprises. It has to be pointed out that findings of the study for the Russian market, in which dividend surprises approach was used in general coincide with the results obtained in the previous studies, in which “naïve” dividend change approach was followed. Namely, negative reaction to both types of announcements – of positive as well as negative nature – was found in the studies by (Teplova, 2008; Teplova, 2011; Rogova, Berdnikova, 2014; Berezinets et al., 2015). This can be attributable to the fact that in the post-crises period Russian investors are very conscious and stay quite suspicious about aggressive dividend policy (both positively-aggressive and negatively-aggressive).

The fact that Russian stock market on average reacted negatively to positive dividend surprises can be explained by several factors. First, this pattern may be associated with the specific expectations of investors in the period 2010-2014, which is considered to be post-crisis. Secondly, negative reaction to positive dividend surprises can be linked to the behavioural finance concept: such unconventional results can be reasoned by general negative mood of Russian investors, their accumulated pessimism and lack of trust in the country’s future economic development. In addition to that, Russian stock market is very much dependent on the fluctuations on the commodities market. During the period 2010-2014 several considerable negative changes and events in the oil&gas sector have taken place, which also could have affected the attitude of investors, levered their pessimism and alertness. On top of that, negative reaction of the Russian market to positive dividend surprises can also be explained by the sample characteristics. Additional results of the study, conducted on two subsamples of the Russian companies – oil&gas and utilities separately from “other industries” - support the fact that dividend surprises are perceived positively by investors in companies, which belong to the oil&gas and utilities sectors. On the contrast, reaction
of the Russian market to positive dividend surprises, associated with the companies of other sectors, was revealed to be negative.

To sum up, the obtained findings of the study provide evidence in favor of the fact that Russian companies should try not to go far from the market expectations when deciding upon dividend payments and follow the forecasts provided by the analysts in order not to ruin its value. This should be more preferable strategy of the Russian companies in terms of dividends, at least until the Russian economy enters a confident growing phase. From the side of investors, while deciding on the trading strategy, it is also important to take into account market movements around the dividend announcement date. Findings of the study have shown that for investors it is possible to benefit from excess returns on the stocks of Russian companies when trading sensibly.

References


