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Faculty of Social Sciences
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MASTER'S THESIS

**The impact of foreign and domestic M&A
on acquirers' stock prices in Central and
Eastern Europe**

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Declaration of Authorship

The author hereby declares that she compiled this thesis independently; using only the listed resources and literature, and the thesis has not been used to obtain a different or the same degree.

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Prague, July 31, 2018

Signature

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Abstract

The primary objective of this thesis is to investigate the value implications of the mergers and acquisitions deals initiated by the firms from the CEE region. We examine the sample of the 203 M&A announcements made by the bidder firms from the two major economies in the region—Poland and Russia—over the period 2006-2016. We apply the event study methodology to investigate the effect of the M&A announcement on the wealth of the acquirers' shareholders. The results demonstrate that on average investors of the Polish acquirers receive positive short-term wealth effect, while the investors of the Russian firms lose in short-term value. Our empirical findings provide partial support for the positive wealth effect when acquirers target the strategically important asset. Our results hold after controlling for the number of firm and transaction-specific characteristics.

JEL Classification

G14, G32, G34

Keywords

mergers and acquisitions, event study, shareholder wealth effects, Central and Eastern Europe

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Abstrakt

Hlavním předmětem této práce je zkoumání vlivu fúzí a akvizic na hodnotu společnosti, iniciované firmami z regionu střední a východní Evropy. Zkoumáme vzorek 203 ohlášených fúzí a akvizic, které iniciovaly firmy z dvou hlavních ekonomik v regionu – Polsko a Rusko v období 2006-2016. Event study metodologie byla použita k ocenění vlivu oznámení o fúzi nebo akvizici na bohatství akcionářů nabyvatele. Výsledky ukazují, že v průměru, polské investoři dostávají pozitivní krátkodobý vliv na bohatství, zatímco ruské investoři ztrácejí na hodnotě v krátkém časovém intervalu. Naše empirické zjištění potvrzují částečný pozitivní účinek na bohatství, když se nabyvatel zaměřuje na strategicky významné aktivum. Výsledky se potvrzují i z pohledu kontroly počtu firem a specifických transakčních charakteristik.

Klasifikace

G14, G32, G34

Klíčová slova

fúze a akvizice, event study analýza,
bohatství akcionářů, střední a východní
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Acronyms

AAR	Average Abnormal Returns
AR	Abnormal Returns
BHAR	Buy-and-Hold Abnormal Returns
BRICS	Brazil, Russia, India, China and South Africa
CAPM	Capital Asset Pricing Model
CAR	Cumulative Abnormal Returns
CEE	Central and Eastern Europe
CIS	Commonwealth of Independent States
EBITDA	Earnings before interest, taxes, depreciation, and amortization
GDP	Gross Domestic Product
EMH	Efficient Market Hypothesis
EU	European Union
FDI	Foreign Direct Investment
M&A	Mergers & Acquisitions
OLS	Ordinary Least Squares
OFDI	Outward Foreign Direct Investment
ROA	Return on Assets
SOE	State-Owned Enterprise
TRBC	Thomson Reuters Business Classification
UNCTAD	United Nations Conference on Trade and Development
USD	United States Dollar
WSE	Warsaw Stock Exchange

Master's Thesis Proposal

Author:	Anna Lukashova
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Defense Planned:	September 2018

Proposed Topic:

The impact of foreign and domestic M&A on acquirers' stock prices in Central and Eastern Europe

Motivation:

The corporate growth can be achieved by taking either intensive or extensive growth opportunities. Mergers and acquisitions (M&As) are commonly used for achieving the extensive growth. Various literature reveals that M&As affect the stock prices both of the acquirers and target firms. Besides, a broad scope of literature is devoted to the investigation of critical factors of the M&A success. The majority of the studies concern the developed economies, mostly the USA and Western Europe, while the number of studies, concentrating on the emerging market is still limited, as well as studies of Central and Eastern Europe (CEE).

According to Kazmierska-Jozwiak (2014), Central and Eastern Europe's share of the global M&A market is still negligible, however, this share is significant for the analyzed economies. The report on the European M&A activity published by Grant Thornton in 2016 states, that, in contrast to falls in Western Europe, deal activity increased in Central and Eastern Europe, with Poland and the Czech Republic leading the way. Domestic M&As are dominating the region, but the number of cross-border transactions is growing.

The shareholders' wealth creation from the M&A is a central question for most of the studies. The most popular methods used to quantify the benefits are the event study methodology and evaluation of the operating performance improvements. The most common approach to examine value creation is to perform a short-run event study that is based on analyzing stock returns in the period surrounding the announcements of M&A transaction (Golubov, Petmezas and Travlos, 2012).

The researches of the M&A activity in CEE that use event study methodology are quite infrequent. Zaremba and Plotnicki (2014) study the short and the long-term effects of the deals, where the both parties are from CEE. They document positive and significant short-term post-announcement abnormal returns on both acquiring and target companies and non-significant long-term abnormal returns. Sharma and Raat (2016) confirm statistically significant increase of the stock price of the developed-market acquirer, when the target firm is located in Czech Republic, Poland, Hungary or Russia.

Hypotheses:

- Hypothesis #1: The cumulative abnormal returns (CAR) of the CEE acquirers are not significant in the short run
- Hypothesis #2: The CAR of the cross-border deals are not significantly higher than the CAR of the domestic deals
- Hypothesis #3: The cumulative abnormal returns (CAR) of the CEE acquirers are not significant in the long run

Methodology:

In order to test the acquirers' stock price reaction to the M&A announcements, I will apply the event study methodology across different event windows. The event window is the time interval, chosen for the study, where 0 is the announcement date. In the existing literature the usually chosen window is several days before and after the event. According to the Efficient Market Hypothesis (EMH), the new information must be incorporated on the announcement date itself, however, studies also analyze the violation of the EMH, so the pre-event and post-event periods are considered. The pre-event period is considered to estimate the expectations of the M&A announcement, and the post-event period is considered to estimate the delay in the reach of the information (Shah and Arora, 2014).

Normal (predicted) returns will be estimated using the market model on the pre-estimated period. Then the abnormal returns (AR) and cumulative abnormal returns (CAR) will be calculated and t-test will be used to check the significance and compare the cross-border and domestic deals effects. To estimate the abnormal returns in the long run, the longer event windows will be used.

To determine the main factors of the deals, the cross-sectional analysis of the CAR and deal characteristics will be used.

The study will be based on the sample of the major and economically influential companies from the CEE. The following requirements must be met: the bidder firms must be publicly traded with the closing prices available, the parties should not be financial firms, the size of the transaction is higher than 10 million USD, the type of transaction must be the acquisition of the major assets.

Expected Contribution:

The primary goal of this paper is to contribute to the literature on short- and long-term event studies of mergers and acquisitions of the stock market firms. I will investigate how the stock markets react to the M&A deals, both cross-border and domestic ones, where the bidder firm is from CEE.

Besides, I will study the question whether cross-border transactions in the Eastern European market create higher positive abnormal returns for acquirers than domestic transaction.

As the research period includes the time of the Global Financial Crisis, I am going to estimate whether the market reaction was significantly different for the Crisis period.

As an additional goal of the paper I suggest that I will elaborate on how active the market of M&As of the stock traded companies in the Central and Eastern Europe and justify that this market has potential for research in this area.

Outline:

1. Motivation: the lack of M&A effects event studies performed on the sample of the Central and Eastern European companies, the M&A activity is developing rapidly in the region.
2. Literature review: I will summarize the main findings of the existing literature estimating the M&A effectiveness.
3. Data and Methodology: I will describe the sample used for the estimation, the algorithm of the event study methodology used and present the model for the estimation of the main deal characteristics.
4. Empirical Results: I will present the results of the estimation and discuss the hypotheses.
5. Conclusion: I will summarize my findings.

Core Bibliography:

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1 Introduction

Mergers and acquisitions (M&A, hereafter) have been one of the most popular methods of the corporate inorganic growth. The companies' motivation to engage in the M&A deals is achieving the value creation through the improved efficiency, optimization of the costs and other synergy effects. However, the companies should consider all the potential costs that are connected with the M&A transaction and take into account that they may outweigh the benefits and result into the value destruction. M&A transactions attract the attention of many researchers from the various fields, such as economics, finance, marketing, law, strategic management and others, and significant literature contribution has been done in past decades. The main question of the research is whether the M&A transaction has a positive influence on the organization. Financial and accounting literature mainly concentrates on the quantitative evaluation of the M&A advantages and disadvantages. For example, whether the M&A create value for the shareholders, or whether firms perform better in the post-acquisition period in terms of business indicators. There is a significant body of literature that is devoted to the examination of the M&A performance in the developed countries, and the number of studies of the emerging markets is growing due to the dramatic rise of the M&A activity in the recent decades. The previous research has revealed that emerging economies differ from the developed economies in terms of M&A performance, M&A deals' underlying motives and determinants.

Despite the fact, that CEE countries experience the increase of the M&A activity, the evidence on the M&A impact in this region is still scant. Additionally to the data availability and reliability limitations, these economies have a shorter history of operation within the capital market systems. The present research concentrates on the effects of the M&A activity for the acquiring firms from the two biggest economies of the region—Poland and Russia. We perform individual and comparative analysis.

The objective of this thesis is to understand, whether the M&A create value for the Polish and Russian acquirers, and what are the factors and motives behind the M&A performance. To evaluate the M&A effect, we use the short-term event study methodology, which is the most popular method to assess the short-term M&A performance. Event study relies on the Efficient Market Hypothesis (EMH), which suggests that the newly incoming information is reflected in the stock prices. If the announcement is not anticipated, it makes possible to observe and estimate the market

reaction to this announcement, which is measured with the abnormal returns. We explain these abnormal returns in our cross-sectional analysis by testing for alternative hypotheses and controlling for various deal and bidder characteristics.

The rest of the paper organized as follows. Section 2 provides the theoretical background and summary of the existing findings on the topic, which is followed by the hypotheses to be tested in the present research. In section 3 the data and methodology are discussed, and section 4 describes the findings. The final section concludes the study.

2 Literature Review

2.1 Motives for Mergers and Acquisitions

Merger and acquisition deals have a considerable influence on the organizations, their capabilities and subsequent performance of the business. As the main motives for the engagement into the M&A deals, researchers name synergy gains, agency motives, and overall following the trends of a booming market (Martynova and Renneboog, 2008; Calipha et al., 2010; Hassan et al., 2016).

Synergy gain implies that the merge of the two firms allows achieving the greater value than the sum of values of these two firms separately. The expected benefits can be divided into the operational and financial synergy gains. The operational synergies include the possibility of higher productivity in case of a merger (e.g., reduction of costs due to the economies of scale, revenue growth due to the optimization of the distribution network, increased market power due to the elimination of competition), or more productive usage of the resources by obtaining access to the technologies of the target firm (Anand et al., 2005; Chen et al., 2010). Financial synergy can be represented by a higher optimal level of leverage, financial diversification of the business, as well as the tax optimization (Golubov et al., 2013). Transfer of the corporate governance practices also can be considered as a source of the synergy gains (Garzella and Fiorentino, 2017).

When it is spoken about the agency motives, it is assumed that managers might have completely different incentives for the M&A transaction than the business owners due to the phenomenon of the principal-agent problem. The presence of the agency motives here implies that managers may participate in the M&A deal against the interests of the shareholders (Chan et al., 2016). According to the free cash flow theory, suggested by Jensen (1987), managers may have the incentive to spend the excess cash flow on the unprofitable projects as they are willing to have more resources under their control instead of paying out this free cash flow to the shareholders. Besides, the corporation expansion allows managers to claim the higher remuneration package (Fong et al., 2010). Among other reasons are the intention to manipulate the share price or simply the managerial overconfidence (so-called hubris hypothesis) and willingness to manage bigger corporation (Malmendier and Tate, 2003; Malik et al., 2014).

Researchers mention that the companies from the emerging economies have different dominating reasons for engaging into the M&A activity than developed economies due to the differences in the institutional context, corporate governance level, economic development and efficiency of capital markets (Deng and Yang, 2015). Emerging market firms are more aggressive in their strategy of offsetting competitive disadvantages and gaining access to missing resources through international M&As, which are larger than available resources of emerging economies (Bertrand and Betschinger, 2012). Besides, emerging economies' companies may face the limitations of the domestic markets.

The effect on the shareholders' wealth can be both positive and negative, including the reason that the motives of the M&A deals are not always purely defined by the intentions of profit creation. The common evidence of the value destruction for the bidder firms in the M&A transactions are often explained by the agency motives of managers. The positive effects may be a consequence of the higher centralization when the firms obtain increased market power and strengthening the bargaining power with suppliers. Besides, successful M&A can enhance the efficiency and, therefore, positively affect the profit and the firm value.

2.2 Methods of evaluation of the M&A effectiveness

In general, the goal of the research on the M&A effectiveness is to measure the value creation effect that the business achieves through the deal. The subject of interest at this point can be the measure of the effect for the bidder firm, for the target firm, or for the new joint enterprise. Literature offers mainly 3 approaches to measure the M&A effectiveness: event studies, accounting studies and surveys of executives.

2.2.1.1 *Event Study*

According to the study of Golubov et al. (2013), the most popular methodology for measuring the value creation effect is event study. This methodology has a long history and has been used in various applications. The most common application is the estimation of the price reaction of the selected class of securities to the particular event.

The modern shape of the event study used in finance and accounting studies emerge from the two prominent works by Ball and Brown (1968) and Fama et al. (1969). However, the earlier papers applying the prototype event study methodology can be found, e. g. MacKinlay (1997) adduces the paper by Dolley (1933), where the nominal price changes at the time of the stock split were examined. Besides, he mentions several other papers developing the methodology up to the late 1960s (Myers

and Bakay, 1948; Barker, 1956, 1957, 1958; Ashley, 1962, as cited in MacKinlay, 1997).

The studies by Ball and Brown (1968) and Fama et al. (1969) were the turning point as they introduced the use of the “market model” for returns evaluation, developed from the capital asset pricing model (CAPM) by Sharpe (1964). Besides, they used the recently introduced data source Center for Research in Security Prices (CRSP) at the University of Chicago which became a standard data source for the capital market studies (Corrado, 2011).

From that time the methodology has been widely used in such disciplines as accounting, economics and finance to evaluate the stock returns reaction to the relevant events (Binder, 1998). The event can be specific to the particular firm (e.g. earning announcements, issue of the new debt or equity), or it can affect the stock prices marketwise (e.g. macroeconomic variables announcements, such as a change in interest rates). (Mitchell and Nettler, 1994)

The M&A deal announcement also can be considered as the significant event for the deal participants. As it has been mentioned, the event study is applied the most frequently when estimating the M&A impact. One of the pioneering works is performed by Eckbo (1983), where he studies the wealth effect for shareholders of bidder and target firms within the horizontal M&A deals.

Within the event study methodology, stock returns over the period surrounding the announcements of the M&A transactions are analyzed. This approach is based on the assumption, that M&A announcement conveys new information to the market that affects the investors’ expectations, and this information is correspondingly reflected in the stock prices. To evaluate the stock price change that is explained by the inflow of the new information, the event study methodology introduces the concept of the abnormal returns (AR), which is the measure of deviation from the expected rate of return. The expected rate of return is defined using the historical market data.

Assuming the efficiency of the stock markets, the information on the future costs and benefits of the M&A deal should affect the investors’ expectations and, respectively, the stock prices shortly around the moment of the deal announcement. In this case, the value-creating deals will be accompanied by the positive abnormal returns, surrounding the deal announcement, and value-destroying deals will produce the negative abnormal returns respectively. The abnormal returns are defined for the certain period of time, usually, it is daily return. The final value effects are defined as Cumulative Abnormal Return (CAR) surrounding the announcement of the deal, which

is the sum of the daily abnormal returns. Usually, several days before and after the announcement are included.

The application of the event study approach implies a number of important assumptions, besides the market efficiency at least with respect to the publicly available information (McWilliams and Siegel, 1997; MacKinlay, 1997). To accurately reflect the value effect, the following conditions should be held:

- The deal announcement is not anticipated. To meet this condition, as the day of the announcement usually taken the day when the transaction was announced publicly for the first time (however, there still might be leakage of the insider information).
- The deal announcement is not coinciding with other significant announcements that may also affect the share price.

Significant portion of the literature that uses the event study methodology is performed for the short-term event windows. Similar event study method can be applied in order to estimate the long-term performance of the M&A deals, the minimum event window selected for the estimation in this case usually starts from the one-year period and can reach up to several years (Fama, 1998).

It is necessary to mention that this approach has several disadvantages. On the longer periods, it is problematic to isolate the effect from the M&A announcement, as there is a risk that the other relevant events influencing the share prices of the firm can happen during the chosen event window. Besides, most of the studies take as a preliminary assumption the efficiency of the financial markets, which implies that in the long run the market corrects inefficient expectations, so the measure of the long-term abnormal effect must be zero, as it is suggested by the used methodology (Martynova and Renneboog, 2008). For the estimation of the value effect, researches can apply CAR or, which happens more often, Buy and Hold Abnormal Returns (BHAR), which account for the compounding effect. However, Fama (1998) highlights, that bad-model problems are more severe when applying BHAR, which compounds (multiplies) an expected-return model's problems in explaining short-term returns.

Thus, the event study methodology is appropriate for the estimation of the short-term value of the decision to perform M&A deal, when for the estimation of the long-term effects other methods are more suitable. Barber and Lyon (1997) suggest that the long-term event studies yield misspecified test statistics and name three reasons for that. First, the new listing bias appears because of the presence of the new listing

firms in the benchmark portfolio, while sampled firms are tracked for a long post-event period. Second, the rebalancing bias arises because the compound returns of a benchmark portfolio (usually market index), are typically calculated assuming regular rebalancing, whereas the returns of sample firms are compounded without rebalancing. Third, the skewness bias arises because the distribution of long-run abnormal stock returns is positively skewed.

2.2.1.2 Accounting Study

An alternative way to measure the effectiveness of the M&A transaction is to evaluate the change in the firm's operating performance. One of the first studies was performed by Mueller (1980). The typical indicators of the operating performance are return on assets (ROA), return on sales (ROS), net profit and others (Bhaumik and Selarka, 2012). They should be captured after the deal and then compared to the prior performance, median or the control firm.

Accounting studies measure the actual performance of the firm, which is an advantage over the short-term event study which measures the investors' expectations. Besides, they allow to measure the M&A performance from various perspectives, using the different indicators (Thanos and Papadakis, 2012). The disadvantage of this approach yet again lies in the issue of the event isolation: one should take into consideration that operating measures are not affected by the fact of the M&A deal exclusively (Andrade et al., 2001). Besides, the strategic goal of the M&A deal may lie not solely in increasing profit over a certain period of time, which accounting studies fail to measure. Finally, the accounting studies are subject to the reliability of the financial statements, which can be a problem for emerging market studies (Hult et al., 2008).

2.2.1.3 Executives Survey

Less popular, than the two mentioned above, method is to measure the M&A performance with the help of the subjective performance measures, that are typically based on the evaluation made by the target respondent of the company during the dedicated survey. For instance, respondents can be requested to evaluate the key business indicators after the deal, such as the development of sales, market shares, operating margin, synergy realization, and overall satisfaction (Trichterborn et al., 2015). The advantage of the method is that it allows to nominally evaluate the immeasurable indicators.

Additionally to the methods mentioned above, Bruner (2002) suggests the clinical studies as another M&A effect measurement method. They focus on the small

sample of cases in greater details with providing field interviews and apply much more individual approach than standardized survey studies.

2.3 Summary of Findings

M&A is commonly considered to be the increasing firm value activity, and in general, it is a significant corporate event, so there exists a wide range of the studies devoted to the investigation of their effectiveness. The dominating portion of literature examines the developed markets, mainly because of the data availability, proceeding from the longer historical horizon and simply higher activity in this region. Besides, Rossi and Volpin (2004) report evidence that the volume of M&A activity is significantly greater in the countries with better accounting standards and stronger shareholder protection, which are the characteristics of the developed economies.

However, the emerging markets have been demonstrating the growing M&A activity (Shah and Arora, 2014; Lebedev et al., 2015), so the literature investigating the effectiveness of M&A deals with participants from the emerging markets appear more often. Usually, they are devoted to the evaluation of the M&A activity in the bigger developing countries with the high economic growth, such as India or China, or performed for the group of countries that can be analyzed together, such as BRICS or group of rapidly growing economies from South-Eastern Asia. According to the UNCTAD report, China is among the top 5 leaders in outward foreign direct investment over the last decade (Unctad.org, 2017).

Generally, studies conclude that the M&A transactions increase the value of the target firm, while the impact of the firm value is not that definite for acquirers. A substantial portion of the literature discovers that the value of the bidder firms decreases or not changes, which allows to acknowledge the phenomenon of the underperformance puzzle (Asquith, 1983; Agrawal and Jaffe, 2000; Antoniou et al., 2008). Moeller et al. (2005) examines the US acquisitions through the 1998-2001 period and reports, that acquiring firms' shareholders lose 12 cents per each dollar invested into the deal. They suggest that transactions were overvalued and without them, the wealth of the bidder firms' shareholders would increase. When we speak about the domestic M&A, the evidence is mixed for emerging markets as well. Bhabra and Huang (2013) show that Chinese listed acquirers for the period 1997-2007 experience positive and significant abnormal stock returns. Kinatader et al. (2017) study the bidder and target listed firms in BRICS countries for the period 2006-2015 and report that acquirers experience value destruction. Besides, they confirm, that shareholders of targeted companies receive positive abnormal returns.

Martynova and Renneboog (2008) in their meta-research compare the studies on M&A effectiveness and aggregate them across M&A waves over the century. It shows that overall shareholders of target firms experience positive wealth effects and the cumulative abnormal returns have been increasing over the takeover waves. The acquirers' cumulative abnormal returns have been generally insignificant.

The estimation of the M&A transactions outcomes with various measures of abnormal returns performance is usually not sufficient, and in order to comprehend the determinants, influencing the investors' reaction to the deal announcement, researchers use cross-sectional model specifications and control for the various deal- and firm-specific factors. Very often deal-specific factors and characteristics of the participating firms appear to have a significant effect on the investors' expectations and shareholders' value (Aybar and Ficici, 2009). As the proxy for the M&A effectiveness, there are used the measures discussed in the above section on the evaluation methodologies.

The unique characteristic of the recent M&A wave is a large number of the cross-border deals (Yaghoubi, 2016). Thus, investigation of the cross-border deals now comprises the substantial portion of the literature devoted to the M&A deals analysis. Studies compare the domestic and cross-border M&A transactions or make a research on the sample consisting only from the cross-border deals. Deng and Yang (2015) review the studies devoted to the emerging market firms initiating cross-border deals. They suggest, that the most common theoretical explanation of the companies' motivation to engage into M&A (they call it M&A logic) is resource dependence theory (Aldrich and Pfeffer, 1976). They summarize, why it also encourages companies to initiate cross-border deals. First, in the globalization era, the firms are more and more dependent on the overseas markets, where they have suppliers of raw materials and intermediate products, or downstream markets. Thus, cross-border M&A becomes one of the forms of expansion to the foreign markets (market seeking motive). Another motive to expand abroad is resource seeking, both in a form of natural resources and strategic assets.

Existing academic findings show that in cross-border deals target firms are likely to gain more than in domestic deals (Aybar and Ficici, 2009). Evidence for the acquiring firms is mixed (Shimizu et al., 2004). Some studies propose that acquirers experience the positive abnormal returns when they possess intangible asset advantages that can be exploited abroad (Morck et al., 1992; Chari et al., 2010). This suggests that the developed market firms should gain more when expanding abroad as they tend to have such assets. Nevertheless, this is not confirmed in the literature.

Bhagat et al. (2011) use a large dataset of 698 cross-border acquisitions made by firms from emerging markets in 1991-2008 and find that they experience positive and significant market response of 1.09% on the announcement day. Aybar and Thanakijsoombat analyze emerging market acquirers during 2000-2010 and similarly report value creation effects for them.

Gubbi et al. (2010) analyze a sample of 425 Indian firms between 2000 and 2007 and show, that acquiring firms' shareholders receive positive abnormal returns in foreign M&A transactions. Recent studies for Chinese firms also report a positive wealth effect for acquirers (Li et al., 2016; Tao et al., 2016).

Aybar and Ficici (2009) examine the cross-border acquisitions made by emerging-market multinationals and find that such deals do not create value for the acquirers, and even often lead to value destruction. Additionally, they find that size of the target, ownership structure of the target (private vs. public), and degree of diversification of the acquirer increase shareholders' wealth, while the high-tech nature of the acquirer and the pursuit of targets in related industries have negative effects.

Cross-border M&A transactions imply bigger challenges for the business due to the higher risk of problems while the integration after the merger. In general, the evidence on the performance of cross-border deals is contradicting and should be controlled by the other influencing factors (Moeller and Schlingemann, 2005). Below we list the most frequently applied factors and discuss their significance and expected influence on the M&A performance, that was confirmed in the existing literature. It is necessary to mention that the factor's significance and the direction of the influence may vary across the different studies, demonstrating that the factors may perform differently in the various markets. In the sub-section below, we report only the most frequent findings for the acquiring firms.

Factors, affecting the M&A effectiveness

Previous evidence has shown that the **target ownership status**, if it is publicly listed or private, is an important determinant for the M&A wealth effect. A considerable number of studies obtain the unambiguous result of higher abnormal returns received by the shareholders of the bidder firms buying private target in comparison to the public target acquisition (Moeller et al., 2004; Capron and Shen, 2007; Farinos et al., 2017). This phenomenon is explained by the need to increase the price of the public target due to the complexity of the ownership structure and respective necessity to satisfy the needs of the different shareholders (this phenomenon is called private target discount) (Fuller et al., 2002). Thus, the price of acquisition of the public firm is considered overestimated. Another explanation is suggested by Hansen and Lott (1996): when a

public firm buys a private target, the goal of the manager is to maximize the total value of the shareholder's portfolio, assuming they hold the shares of both firms and are indifferent, how the gain is divided. Hence, the negative returns of the acquirer can be offset by the positive returns of the target. If the target company is private, acquirers gain if the bid is value increasing.

The **mode of payment** is another crucial M&A performance determinant, i.e. the CAR for deals financed with cash are significantly higher than the stock-financed transactions (Fuller et al., 2002; Nicholson and Salaber, 2013). The common conclusion is that due to the agency problems, stock financing is signaling that the stock is overvalued (Myers and Majluf, 1984; Fishman, 1989). Nevertheless, the opposing evidence is present, for example, Dutta et al. (2013) find a positive and significant effect for the stock financed deals for the sample consisting of 1300 completed deals by Canadian acquirers between 1993 and 2002. They suggest that stock payment might be considered as a remedy for information asymmetry reduction and downsizing the corporate governance-related risk.

The evidence on the **deal size** influence is mixed. Some studies report that it is a significant negative factor for M&A performance, as the large deals are typically more complicated and take a substantial period of time (Aybar and Ficici, 2009). At the same time, some studies find evidence of a significant positive relation between acquirer return and the deal size (Moeller et al., 2005; Bhagat et al., 2011). The deal's size is usually corrected, for example for the combined market capitalization of the merging firms.

Sometimes researchers include the acquirer's **leverage** as the deal factor, often within the context of testing the free cash flow hypothesis by Jensen (1987). Following this logic, management with the free cash flow tends to invest in the unprofitable projects, so the higher indebtedness controls the manager's behavior. Thus, the level of leverage is expected to be positively associated with the abnormal returns. This result is confirmed by Kang (1993). Kumar and Panneerselvam (2009) obtain mixed results, where the influence of the leverage level is positive in case of acquisitions, but negative in case of mergers. There are several ways how to measure the firm's leverage, usually it is debt to total assets or debt to equity measured by the book value (Lang et al., 1991).

The next classical significant factor is the **industry relatedness** (Maquieira et al., 1998), which suggests, that if the merging companies are from the affiliated or exactly same industries, the process of the mutual integration must be less complicated than for the firms from the unrelated industries (Rumelt, 1982; Berger and Ofek, 1995;

Moeller and Schlingemann, 2005). Nevertheless, the evidence on the significance and direction of this determinant is mixed (Aybar and Ficici, 2009).

We would like to specifically mention the fact that in the emerging markets government often plays a special role in M&A activity. This is the most relevant point for the **government-controlled companies**, as for them cross-border M&A deals is an instrument for extending their power by acquiring natural resources abroad. Chen and Young (2010) note that in China the government is the major shareholder of the most companies engaging into cross-border M&A, and the government is likely to have different motives for M&A than minor shareholders, rather political than profit-making, which triggers a principal-principal conflict. The possible motive for that conflict is national pride when firms initiate cross-border deals in intention to grow power over a particular industry.

This factor is in general relevant for the post-transition economies. For example, in Russia the majority of the listed companies are state-owned, which implies the dominant position of the Russian government in corporate decision-making and divergence of interests between the majority (government) and minority shareholders. The characteristics of the deals in CEE countries and, specifically countries of this research, will be described in detail in the section below.

The aspects mentioned above comprise a fairly incomplete list of the factors that are relevant for the M&A effect for the bidder firm's investors. The problem of many of them is that they appear to be quite important, but difficult to measure. For example, the **level of corporate governance** is a crucial factor in the case of examination of emerging markets and cross-border deals. Companies from developing markets typically have a lower level of corporate governance which may complicate the deal and subsequent integration and make counterparties from developed countries reluctant to the merger. However, this factor is still quite subjective and difficult to measure, which complicates testing the respective hypothesis. As an example, Aybar and Ficici (2009) use Level II and Level III ADR issuance as a proxy for corporate governance.

2.4 Mergers and Acquisitions in Central and Eastern Europe

Generally, there is a lack of researches of the present topic for the developing economies due to the lower activity and respective shortage of the data available in comparison to the developed countries. However, the number of studies on M&A

effectiveness in emerging countries is increasing, mainly for the Chinese, Indian and other fast-developing Asian economies as the most rapidly growing among the emerging markets. The amount of studies that concentrate on the transitional economies, or CEE economies, is very low, which provides extensive research possibilities. In this section, we will summarize the most relevant researches devoted to the evaluation of the M&A effectiveness in this region.

According to Kazmierska-Jozwiak (2014), Central and Eastern Europe countries' share of the global M&A market is still negligible, however, this share is significant for the analyzed economies. Visic and Skrabic (2011) investigate which determinants affect the value of foreign M&A in transitional European economies and come to the conclusion, that the indicators of the economic growth (such as lagged GDP per capita, lagged GDP growth) have positive effect on the value, which suggests that with the process of the economic growth and attraction of the foreign investments the M&A activity will be developing more and more in these countries.

Zaremba and Plotnicki (2014) study the short and the long-term effects of the deals, where both parties are from CEE. They document positive and significant short-term post-announcement abnormal returns on both the acquiring and target companies and non-significant long-term abnormal returns. Sharma and Raat (2016) confirm the statistically significant increase of the stock price of the developed-market acquirer, when the target firm is located in Czech Republic, Poland, Hungary or Russia.

Initially, the present research was aimed to assess the M&A transactions effect on the acquiring firms that belong to the Central and Eastern Europe region using the event study methodology, which requires the company to be listed on the stock market at the period of the research. However, for the considered period the majority of CEE countries do not possess enough cases of M&A where the acquirer is a listed firm, due to still relatively low activity on the financial markets. Hence, only bidder firms from Poland and Russia were included in the initial sample, as there were enough cases for the robust statistical research.

The economy of Poland is the largest among the former Eastern Block members of the EU, and the Warsaw Stock Exchange (WSE) is the largest national financial instruments exchange in the CEE region. It has been having a reputation of the business-friendly country with sound macroeconomic policies.

Since 1990 Poland has followed the policy of economic liberalization. Polish economy was the leader in attracting Foreign Direct Investment (FDI) during the period between 1990 and 2012 among CEE countries (Pilarska and Kornecki, 2015). The

crucial role played the FDI inflow from the US while the earliest years of independency, which helped to stimulate the generation of revenues and employment. According to the findings of Uhlenbruck and De Castro (2000), the state-owned enterprises (SOEs), privatized by the foreign investors perform significantly better than those still owned by the government.

During the global financial crisis of 2008-2009 Poland was the only EU state that avoided the economic recession. This was the result of the loose fiscal policy combined with spending limitations.

Polish economy still has been facing several systematic challenges, such as rigid labor code, government bureaucracy and burdensome tax system for the entrepreneurs.

The Russian economy is the largest among the former Soviet countries. Since 1991 its economy has moved from the centrally planned system to the market-based system. In the 1990s most of the industry was privatized, however, the property rights protection is still quite weak with the possibilities for the government to interfere to the operations in the private sector.

Russia is one of the top producers of oil and natural gas and leading exporter of the steel and primary aluminum. Due to this, the economy is very dependent on the commodity prices' moves. During the decade of the growing oil prices in 1998-2008 Russian economy experienced the average GDP growth of 7%, however, the growth sharply fell after the global financial crisis and oil prices drop. In combination with the international sanctions and institutional weakness, the economy has fallen into a deep recession in 2015. Nevertheless, the growth was positive in 2017 with the rise of the global demand.

The two economies are comparable in amount of GDP per capita (\$29,300 in Poland and \$27,900 in Russia, 2017). Besides, both countries have switched from the centrally planned economy to a free market system at the beginning of the 1990s. However, their transition process was not similar, and these two countries often appear as the counterparties in the various transitional economies comparative studies, as the largest representatives of two groups: new EU members and Commonwealth of Independent States (CIS).

In particular, these countries had unequal privatization experience. The privatization itself provides the environment for the M&A activity that is considerably different from the experience of the Western economies. There are several reasons:

different managerial and motivational approaches of the state-owned firms, in general lower efficiency and high probability of the government interventions (Uhlenbruck and De Castro, 2000). However, within the group of transition economies, there is a large variation in privatization outcomes and subsequent economic performance. Djankov and Murrell (2002) conclude that CEE countries (new EU members) experience a positive impact of the privatization, while for the CIS countries the effect was statistically insignificant. According to Hanousek et al. (2009), the post-communist economies had in general positive privatization experience. However, the effect may be overestimated due to the selection bias, as better performing companies were privatized first. Russia is different in this perspective, as the performance effect to domestic owners has shown to be negative or insignificant.

Hoskisson et al. (2013) perform the cluster analysis of the emerging and newly emerged markets in two dimensions, “institutional development” and “infrastructure and factor market development” and discuss the implications to the outward direct investment (OFDI). They classify Russia and Poland into different clusters. Russia is the economy with “Low Institutional Development and High Infrastructure and Factor Development” (mid-range emerging economies, type 1). They suggest, that OFDI strategy is good for such economies, to make use of the better institutional environment than in their home country. However, the companies may find it difficult to operate in markets with better institutional development. Poland belongs to the cluster with “High Institutional Development and Low Infrastructure and Factor Development” (mid-range emerging economies, type 2). It is noted, that Poland restored the democratic institutions after the political revolution in 1989, which existed historically more so than among other CEE transition economies. At the same time, Poland’s institutional development has outperformed the infrastructure development. Type 2 economies may be able to move to developed markets more readily because there is a shorter institutional distance between companies from type 2 economies and developed markets.

The academic evidence of the M&A effects specifically in Russia or Poland is quite poor as the countries had little acquisition experience due to the different market system in the communist period.

There are several papers by the Polish authors that examine the M&A effect for the target firms in Poland, e.g. Lewandowski (2001), Machala (2007), Perepecko (2009) (as cited in Bielicki, 2016). In general, they conclude that the shareholders of the companies being sold experience the positive wealth effect.

Bertrand and Betschinger (2012) study the long-term impact of the M&A deals in Russia on the operating performance and note, that the study forms an interesting case, as Russian firms had little acquisition experience due to the different market system in the Soviet period. According to their results, M&A deals destroy value: both cross-border and domestic deals generally reduce the subsequent performance (as a performance measure the authors use ROA).

2.5 Hypotheses Development

In this section, we develop several hypotheses based on the previous evidence and theoretical background. The primary objective of the study is to investigate whether the M&A transactions initiated by the bidding firms from Poland and Russia create value. Additionally, we test the influence of the several firm- and transaction-specific factors on the wealth effect arising from the M&A deal announcement.

The main objective of the current research is to examine whether initiation of the M&A deals by Polish and Russian acquirers create short-term value. In the sections above, we have mentioned, that in general empirical evidence shows that the M&A deals do not create short-term value for the bidder firms.

Hypothesis 1a: *The cumulative abnormal returns (CAR) of the acquirers from Poland are not significant in the short-term period.*

Hypothesis 1b: *The cumulative abnormal returns (CAR) of the acquirers from Russia are not significant in the short-term period.*

It was previously discussed that firms initiate mergers and acquisitions in order to obtain access to the key strategic assets to achieve extensive growth. As we consider two countries in our study, the differences of which we have also described above, we argue that companies operating in Russian and Polish economies would pursue access to the different types of the strategic assets. One possible dimension in which to distinguish these economies is the industry specialization. The Russian economy is strongly associated with the oil-and-gas industry (World Bank, 2018). In Poland, the service sector is growing, however, manufacturing remains one of the key strength of the Polish economy. We have chosen the chemicals industry as a primary industry for the Polish economy, as one of the largest in terms of revenues (Pipc.org.pl, 2016).

In both cases, we want to test whether investors recognize and value resource-seeking motive of the acquiring company. Hence, similarly to the approach of Nicholson and Salaber (2011), we introduce binary variables indicating whether the target company belongs to the primary industry to test if the shareholders distinguish and positively react to the M&A deal announcement initiated by the company from the corresponding industry, or not.

Hypothesis 2a: Acquirers from Poland do not experience positive and significant abnormal returns when they target the company which main activity is related to the chemicals industry.

Hypothesis 2b: Acquirers from Russia do not experience positive and significant abnormal returns when they target the company which main activity is related to the oil-and-gas industry.

Another evidence of the resource pursuing motive is a tendency to expand abroad through engaging into the cross-border M&A deals. To understand, if it holds in our sample, we first need to understand the deals' breakdown in our sample. *Appendix 3. Target Countries Distribution* represents the distribution of the deals across the country of the target firm, separately for developed and developing economies. The country is considered developed if it is either a member of the Organization for Economic Cooperation and Development (OECD) and/or a member of the advanced economies list from the International Monetary Fund (IMF). According to this classification, Poland belongs to the group of the developed economies and Russia belongs to the developing economies.

In the present study, we decided to account only for the developed target evaluating the cross-border deals. We can observe, that if Russian acquirer targets the company from the developing country, in most of the cases it is the member of Commonwealth of Independent States (CIS). It is possible to assume, that most of the formal and informal institutions of these countries are similar to Russian, moreover, the Russian language more or less widely used, thus, the overall performance of such deal should resemble the domestic deal. In the case of Poland, most of the transactions were performed with the counterparties from the developed economies (specifically, from the European Union). As we expect the foreign deals to create value for the shareholders due to access to the additional resources, targets in developed economies are more likely to offer such competitive advantage.

The expected impact on the shareholders' wealth in case of targeting the developed economy firm is positive, as emerging markets receive access to the new competencies, technology, and knowledge essential to their strategy (Kumar, 2009). Emerging markets' studies typically focus on it and receive evidence of the positive influence on the merger performance (Bhagat et al., 2011; Gubbi et al., 2010).

In this study, we test both for Russian and Polish acquirers whether targeting the foreign developed company generate the positive wealth effect for the shareholders, or not.

Hypothesis 3a: Acquirers from Poland do not experience positive and significant abnormal returns when they target the developed foreign company.

Hypothesis 3b: Acquirers from Russia do not experience positive and significant abnormal returns when they target the developed foreign company.

3 Data and Methodology

3.1 Sample Description

We compose the initial sample following the usual procedure of the M&A event study (e.g., see Moeller and Schlingemann, 2005; Masulis et al., 2007). To be included into the sample, the announcement date of the M&A deal had to fall into the range from January 2006 to December 2016 and the acquirer has to be a publicly listed company from Russia or Poland. The additional requirements were that the amount of the deal must be greater than USD 10 million, the deal must be completed, and the acquirer and target should not be an investment firm. Only mergers or acquisitions of majority assets were included in the sample. The bidder firm had to control less than 50% of the target prior to the announcement and own more than 50% of the target's shares after the deal completion.

The information on the announcement date, acquirer's and target's nation, industry, and other deal-related information were retrieved from the Thompson Reuters M&A database.

The original sample consists of 321 deals, 114 made by the bidder firms from Poland and 207 by the bidder firms from Russia. Figure 3.1 shows the distribution of the deals for both countries across the 11-year period. The trend is consistent with the stylized fact that M&A activity is exposed to cyclicalities (Brakman et al., 2006). There is a sharp decline during 2009, the year of the Global Financial Crisis, with the subsequent correction, and the trend is gradually decaying during the last years of the period.

Next, the daily quotes of acquirers were retrieved from Google Finance database and Thompson Reuters Wealth Manager database. As a next step, we exclude some observations in an analogous way as Aybar and Ficici (2009). First, the companies that did not have enough observations for event study estimation were excluded. Second, we exclude the cases where deal announcements occurred on the same stock market and very close in terms of time, in order to ensure that there is no confounding effect during the event window.

The final sample consists of 203 deals, 79 announcements made by 57 Polish firms and 124 announcements made by 56 Russian firms. The information on

acquirers' names and stock exchange can be found in the Appendix 1. The whole sample includes 62 cross-border deals and 141 domestic deals.

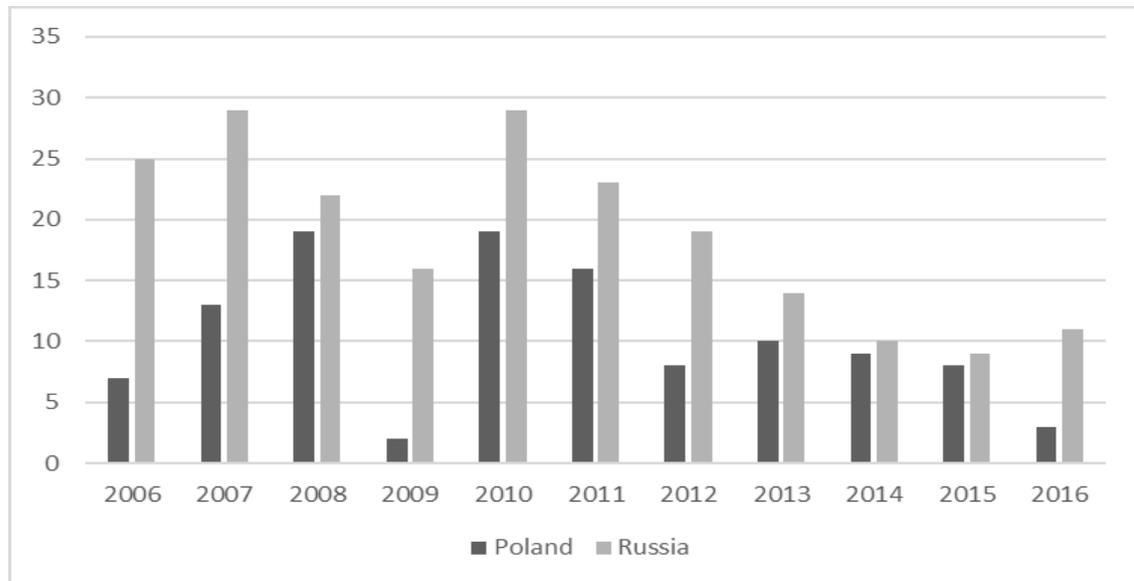


Figure 3.1: M&A deals distribution by year

Source: Thomson Reuters database; author's computations.

As a final step for the event study execution preparation, the data of daily market indices was retrieved from the Google Finance database. For the Polish acquirers, we use WIG, the main index of the Warsaw Stock Exchange, as all of the companies in the sample are listed on their national stock exchange. In case of Russian acquirers, three different indices were used: MICEX Index¹, FTSE ALL-Share Index and NASDAQ Composite, depending on whether the firm is listed on Moscow Interbank Currency Exchange, London Stock Exchange or Nasdaq Stock Market.

For the regression analysis, additional deals' and firms' characteristics, as well as firms' financial figures were retrieved from the Thomson Reuters database. Only the deals with all the necessary information available were left, which makes 194 cases.

3.2 The General Methodology

In this research, we employ the standard methodology used in studies of short-term shareholders' wealth and its determinants (e.g., see Gubbi et al., 2009; Bhagat et al., 2011). We employ a two-step procedure to test the hypotheses, where

¹ MOEX Russia Index since November 2017 (Moscow Exchange, 2017)

1. The wealth effect of the deal announcement is assessed with the event study methodology, i.e. calculation of the Cumulative Abnormal Returns (CAR).
2. The calculated CAR are regressed on the explanatory and control variables.

First, the effect of M&A deals on the firm value will be analyzed with the standard event study methodology. As it was discussed in the literature review, this method is widely used in the studies on the evaluation of the short-term effect of various events that are expected to exhibit considerable influence on the stock market. The short-term period of study is critical, as it is assumed that during the short event windows the model can capture the impact of the particular event, while other influential events, that are not in the center of the research, are separated. In addition, this method is popular, as it allows to conclude whether an event had a positive or negative influence on the shareholders' wealth.

Afterwards, several regression models are estimated using the OLS method, where short-term CAR serve as the dependent variable. We use the CAR measure as a proxy for the M&A effect for the several reasons. First, it has been widely used in finance studies of M&A (McWilliams and Siegel, 1997; Moeller & Schlingemann, 2005; Masulis et al., 2007). Second, this measure has been found to be positively correlated with the subsequent performance (Kale et al., 2002; Duso et al., 2010), Third, this measure is independent to the variations in accounting standards and quality of the accounting information. The control variables were chosen based on the previous findings, showing that these factors influence significantly on the M&A performance.

Event study allows to determine if there is an "abnormal" wealth effect associated with an unanticipated event (in our study Hypotheses 1a and 1b), while regression analysis is applied to verify if the cross-sectional variation across firm abnormal returns is consistent with the theory (Hypotheses 2a, 2b, 3a and 3b), and therefore, proves reliability of the empirical findings of the study (McWilliams and Siegel, 1997).

3.3 The Event Study Methodology

We follow the standard methodology to calculate cumulative abnormal returns that has been applied in most of the event study literature (e.g. see Jensen and Ruback, 1983; Andrade et al., 2001; Fuller et al., 2002; Moeller et al., 2005). This methodology is based on the approach first suggested by Brown and Warner (1985), who used daily abnormal returns to evaluate wealth effects.

The general assumption of the event study methodology is that the actual return of the share i at time t R_{it} is different from the normal return \bar{R}_{it} , and the difference is equal to the abnormal return e_{it} :

$$R_{it} = \bar{R}_{it} + e_{it} \quad (1)$$

where $R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}}$, P_{it} is the closing price of the share i on the day t .

There are several approaches to define the normal return in this model. The most simplistic one is to use the mean-adjusted returns model (Dyckman et al., 1984), which takes an average of the series of past returns (e.g. see Zhu and Malhotra, 2008). Market-adjusted model uses the market index as the normal return (Brown and Warner, 1985; Fuller et al., 2002; Bouwman et al., 2007). Principally, this is a modified market model with $\alpha = 0$ and $\beta = 1$. According to Brown and Warner (1985), the difference between a market model and market-adjusted model is negligible. In this study, we use the market model for the normal return estimation, as it was proposed in basic event study methodology by Fama et al. (1969) and now used in most of the studies (e.g., see Moeller et al., 2005; Masulis et al., 2007):

$$\bar{R}_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (2)$$

where R_{mt} is the return on the market index on the day t , $R_{mt} = \frac{I_{it} - I_{it-1}}{I_{it-1}}$, I_{it} is the market index on the day t ; α_i is mean return that is not explained by the market; β_i is the sensitivity of the company i to the market, $t \in (t_1; t_n)$ is the estimation period, ε_{it} is the statistical error. 150 days window was chosen as the estimation period for the normal return, [-160; -11], where $t = 0$ is the event day.

Then the abnormal returns are defined as measure that shows how the actual return R_{it} exceeds the normal return on the day t :

$$AR_{it} = R_{it} - (\hat{\alpha} + \hat{\beta} R_{mt}) \quad (3)$$

Parameters $\hat{\alpha}$ and $\hat{\beta}$ are estimated with the OLS on the market model.

Daily abnormal returns are calculated for each day t and company i . The full effect of the corporate event may not be captured in one single day, so for the estimation of the short-term performance of the acquirers we calculate the Cumulative Abnormal Returns (CAR), which is the sum of ARs on the event window, where $\tau \in (\tau_1; \tau_2)$:

$$CAR_i(\tau_1, \tau_2) = \sum_{\tau=\tau_1}^{\tau_2} AR_{i\tau} \quad (4)$$

M&A event studies typically observe the cumulative return for the period around the event, the short-term event window can take the value from 2 days to 6 months. However, on the longer event windows the announcement effect may be diluted due to the disturbances caused by the arrival of the additional information and reactions to the different events (McWilliams and Siegel, 1997).

Event studies for the developed economies use shorter event windows to capture the announcement effect, as the developed markets are considered to be more efficient. Developed economies have more transparent and effective regulations, so there are fewer possibilities for insider trading. Bekaert and Harvey (2002) recap the academic literature evidence for the larger inefficiency in emerging economies: 1) higher serial correlations; 2) company-specific news are less influential due to the information leakage prior to the public announcements (Bhattacharya et al. (2000) suggest the evidence in Mexico); and 3) high returns portfolio can be achieved by employing relatively simple investment strategy (Van der Hartet et al., 2003).

In the current research, to define the event windows, we first examine the behavior of the average abnormal returns (AAR) around the event, as it was done by Wu et al. (2016). AAR are calculated as follows:

$$AAR_{it} = \frac{\sum_i AR_{it}}{n} \quad (5)$$

Where n stands for the number of the observations (number of the deals). Two event windows were selected, 5 and 17-days: (-3; +1) and (-8; +8). Days prior to the event are normally included in CAR calculation due to the possible leakage of the information (Chakrabarti et al., 2009). The post-event period is included in the event window to estimate any delay in the reach of the information to the shareholders (Peterson, 1989).

The significance of the CAR is verified with the parametric t-test and non-parametric Wilcoxon rank sum test (as in papers by Rau and Vermaelen, 1998; Aybar and Fici, 2009; Gubbi et al., 2010; Bhagat et al., 2011). More detailed approach is described in Section 4.

We decided not to include the estimation of the long-term effects into the current research due to substantial limitation connected to this approach. We concentrate solely on the estimation of the short-term performance and factors affecting it, which will be described in the following sub-section.

3.4 Cross-sectional Model Specification

To investigate the factors affecting the M&A performance of Polish and Russian acquirers, several cross-sectional models were estimated with the CAR as the dependent variable, where CAR represent the short-term wealth effect from the M&A deal announcement. The models are estimated separately for Poland and Russia subsamples. The basic model includes only a set of control variables on the right-hand side.

The inclusion of this list of variables is theoretically and empirically motivated based on the existing academic evidence described in the 2.3, *Factors, affecting the M&A effectiveness*. We have made an effort to choose the most relevant factors, and, at the same time, to avoid the over-specification. We include quantitative factors, among which are companies' fundamentals obtained from the financial statements, and qualitative factors as dummy variables. The list of the control variables is described in Table 3.1. We include one additional variable for the acquirers from Russia—state ownership, as there is a substantial number of the state-owned enterprises among the listed firms in Russia and they play a significant role in the economy. Besides, we include the set of the economic sector dummies to control for the average differences across the economic sectors in any observable or unobservable predictors, which should help to reduce the omitted variable bias (Riegg, 2008). To do so, we apply the Thomson Reuters Business Classification (TRBC) to our sample and assign the dummy values based on the division by the economic sector.

Variable name	Description
REL_SIZE_i	Relative size of the deal, calculated as the value of the transaction divided by total assets of the acquirer in last fiscal year before the announcement.
$LEVERAGE_i$	Level of acquirer's leverage, calculated as long-term debt divided by the total assets last fiscal year before the announcement.
ROA_i	Return on assets of the acquirer, calculated as net income divided by total assets last fiscal year before the announcement.
$GROWTH_RATE_i$	Growth rate of the acquirer, calculated as the growth rate of the revenue experienced during the last fiscal year before the announcement.
$CONTROL_i$	Level of control, calculated as the percentage of shares acquired by the bidder company.
$LISTED_i$	Listed target, dummy variable that equals to 1 if the target company is listed on the stock market at the moment of the announcement, 0 otherwise.
IND_REL_i	Industry sector relatedness, dummy variable that takes value 1 if the target's main industry sector is the same as acquirer's main industry sector based on the Thomson Reuters Business Classification, 0 otherwise.

Variable name	Description
$CASH_i$	Cash payment mode, dummy variable that equals to 1 in case the deal is cash-financed, 0 if the deal is stock-financed or payment mode is unknown.
$STATE_RUS_i$	State-owned company, dummy variable that equals to 1 if the acquirer is state-owned, 0 otherwise (relevant for Russian deals only).
$SECTOR_X_i$	Economic sector X, dummy variable that takes value 1 if the acquirer's economic sector is X, 0 otherwise (the list of economic sectors can be found in the Appendix 2).

Table 3.1: Definition of the Control Variables

First, the basic model was estimated both for Russian and Polish acquirers. To test the hypotheses 2 and 3 we evaluate models including the explanatory variables: $CHEMICALS_TAR_i$ (OIL_TAR_i) and $DEVELOPED_i$. The explanatory variables are defined in the Table 3.2.

Variable name	Description
OIL_TAR_i	Oil-and-gas industry sector, dummy variable that equals to 1 if the target company main activity is in Oil-and-gas industry sector, 0 otherwise (relevant for Russian deals).
$CHEMICALS_TAR_i$	Chemicals industry sector, dummy variable that equals to 1 if the target company's main activity is in Chemicals, 0 otherwise (relevant for Polish deals).
$DEVELOPED_i$	Target from developed economy, dummy variable that equals to 1 if the acquirer targets the foreign company from the developed economy, 0 otherwise. The economy considered developed if it is either a member of the OECD and/or a member of the advanced economies list from the IMF.

Table 3.2: Definition of Independent Variables

Three model specifications were estimated. The specifications are presented below in the scalar form, so the variables are immediately identifiable (we include the set of economic sector dummies in a vector multiplication form to avoid excessive complexity):

Specification 1. Regression that includes only set of control variables:

$$\begin{aligned}
CAR_i = & \alpha + \beta_1 REL_SIZE_i + \beta_2 LEVERAGE_i + \beta_3 ROA_i \\
& + \beta_4 GROWTH_RATE_i + \beta_5 CONTROL_i + \beta_6 LISTED_i \\
& + \beta_7 IND_REL_i + \beta_8 CASH_i + \beta_9 STATE_RUS_i + \mathbf{SECTOR}_i \gamma' + \varepsilon_i \quad (6)
\end{aligned}$$

Specification 2. Regression that includes industry dummy variable, $CHEMICALS_TAR_i$ for Polish acquirers:

$$\begin{aligned}
CAR_i = & \alpha + \beta_0 CHEMICALS_TAR_i + \beta_1 REL_SIZE_i + \beta_2 LEVERAGE_i + \beta_3 ROA_i \\
& + \beta_4 GROWTH_RATE_i + \beta_5 CONTROL_i + \beta_6 LISTED_i \\
& + \beta_7 IND_REL_i + \beta_8 CASH_i + \beta_9 STATE_RUS_i + \mathbf{SECTOR}_i \gamma' + \varepsilon_i \quad (7a)
\end{aligned}$$

and OIL_TAR_i for Russian acquirers:

$$\begin{aligned}
CAR_i = & \alpha + \beta_0 OIL_TAR_i + \beta_1 REL_SIZE_i + \beta_2 LEVERAGE_i + \beta_3 ROA_i \\
& + \beta_4 GROWTH_RATE_i + \beta_5 CONTROL_i + \beta_6 LISTED_i \\
& + \beta_7 IND_REL_i + \beta_8 CASH_i + \beta_9 STATE_RUS_i + \mathbf{SECTOR}_i \gamma' + \varepsilon_i \quad (7b)
\end{aligned}$$

Specification 3. Regression that includes dummy variable, indicating the cross-border deals with the target company from the developed economy ($DEVELOPED_i$):

$$\begin{aligned}
CAR_i = & \alpha + \beta_0 DEVELOPED_i + \beta_1 REL_SIZE_i + \beta_2 LEVERAGE_i + \beta_3 ROA_i \\
& + \beta_4 GROWTH_RATE_i + \beta_5 CONTROL_i + \beta_6 LISTED_i \\
& + \beta_7 IND_REL_i + \beta_8 CASH_i + \beta_9 STATE_RUS_i + \mathbf{SECTOR}_i \gamma' + \varepsilon_i \quad (8)
\end{aligned}$$

In each of the specifications, $\mathbf{SECTOR}_i \gamma'$ corresponds to the matrix of the economic sector dummy variables, and ε_i are statistical errors. To avoid perfect multicollinearity, we exclude the sector dummy for Consumer goods and services from the models for the Polish sample, and Energy sector for the Russian sample. We have chosen these sectors, as they both include a relatively big number of the deals and can be considered as ‘typical’ in each subsample (so the coefficients of the economic sector dummy variables could be interpreted as the difference from the typical sector). Table 3.3 Table 3.3: List of the economic sector dummy variables provides with the full list of the economic sector variables.

Variable Name	Economic sector
$SECTOR_1_i$	Basic Materials
$SECTOR_2_i$	Consumer Goods & Services
$SECTOR_3_i$	Energy
$SECTOR_4_i$	Healthcare
$SECTOR_5_i$	Industrials
$SECTOR_6_i$	Technology
$SECTOR_7_i$	Telecommunications Services
$SECTOR_8_i$	Utilities

Table 3.3: List of the economic sector dummy variables

Each of the specifications was estimated on the set of Cumulative Abnormal Returns for the 5-days event window and 17-days event window, separately for the subsamples of Polish acquirers and Russian acquirers. Thereby, for each of the three

specifications, four models were estimated, 12 in total. The model index numbers are presented in Table 3.4.

We estimate the models with the OLS regression and account for the standard errors using the Hubert-White sandwich estimator. With this method, the standard errors take into account minor problems related to normality, heteroskedasticity and large residuals (Chen et al., 2000 as cited in Gubbi et al., 2010).

<i>Specification</i>	1		2		3	
<i>Dependent variable</i>	<i>Acquirer's nation</i>					
	Poland	Russia	Poland	Russia	Poland	Russia
CAR(-3;+1)	(1)	(2)	(5)	(6)	(9)	(10)
CAR(-8;+8)	(3)	(4)	(7)	(8)	(11)	(12)

Table 3.4: Models' index numbers

4 Empirical Results and Discussion

4.1 Testing the presence of shareholders' value effect

We start with the analysis of the whole sample without separation based on the acquirer's domestic country. To illustrate the behavior of the abnormal returns around the event (which is M&A deal announcement), the average abnormal returns (AAR) for each day of the event window were plotted (see Figure 4.1). It is clearly observable, that on average shareholders experience positive abnormal returns on the day of the event, however, positive effect has been offset by the subsequent downside movements of the abnormal returns. Over the period, following the event, the abnormal returns become more even and are getting close to zero.

To evaluate both the instant announcement effect and the extended impact, two event windows were chosen based on the visual analysis, 5 and 17 days: $[-3; +1]$ and $[-8; +8]$.

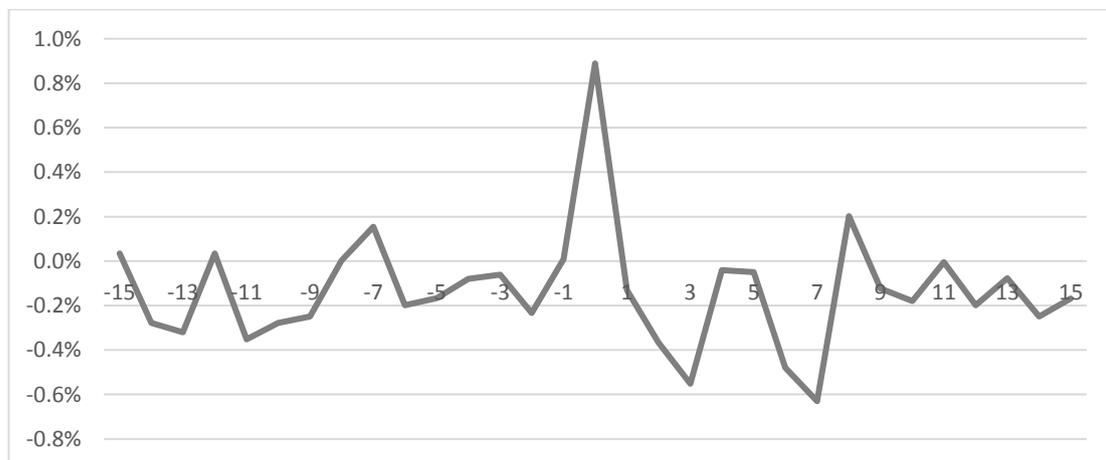


Figure 4.1 AAR on the $(-15; +15)$ event window, full sample

Source: author's computations.

Table 4.1 summarizes the descriptive statistics of the Cumulative Abnormal Returns for the considered event windows. To test if CAR are significantly different from 0, we conducted the t-test, as well as the Wilcoxon rank sum test to check the robustness of findings. According to them, the deal announcements produce a significant and negative effect on the longer event window—17 days, while on the 5-day event window the announcement effect is positive and insignificant.

Event Window	Min	Median	Max	Mean	Std. Dev.	t-test	Wilcoxon
CAR(-3;+1)	-0.304	-0.0005	0.636	0.005	0.085	0.795	10163
CAR(-8;+8)	-0.869	-0.006	0.449	-0.017	0.147	-1.684***	8726*

Note: *p<0.1; **p<0.05; ***p<0.01; sample includes all the deals made by Polish and Russian firms, considered in the study (n=203)

Table 4.1: Descriptive statistics of CAR

Source: author's computations.

4.2 Comparison of shareholders' value effect for Russian and Polish acquirers

As the sample includes deals with acquirers from two countries with the different economic and cultural background, we decided to evaluate them separately and compare the performance of the two subsamples, with acquirers from Poland and Russia respectively.

The descriptive statistics of the subsamples is presented in

Event Window	Min	Median	Max	Mean	St. Dev.	t-test	Wilcoxon
<i>Panel A (Acquirers from Poland, n=79)</i>							
CAR(-3;+1)	-0.184	0.009	0.344	0.022	0.079	2.512**	2036***
CAR(-8;+8)	-0.213	-0.005	0.332	0.001	0.107	0.143	1456
<i>Panel A (Acquirers from Russia, n=124)</i>							
CAR(-3;+1)	-0.304	-0.009	0.636	-0.006	0.087	-0.719	2977***
CAR(-8;+8)	-0.869	-0.011	0.449	-0.029	0.166	-3.321**	3079***

Note: *p<0.1; **p<0.05; ***p<0.01; t-test was used to calculate the statistical significance of the mean CAR, and Wilcoxon rank sum test was used for the median CAR

Table 4.2, as well as t-test and Wilcoxon rank sum test. It is necessary to confirm the findings with the non-parametric test as here the data contain the potentially relevant outliers. To test the Hypotheses 1a and 1b, we follow the approach of Gubbi et al. (2010) and regress the CAR values on 1 using the Hubert-White sandwich estimator and consider the significance of the constant term obtained. This method is expected to be more reliable than ordinary t-test, as mean is divided by robust errors rather than standard errors.

For the Polish acquirers, the null hypothesis can be rejected in case of 5-days event window: according to the one-sided t-test, mean CAR(-3;+1) is significantly greater than 0, the average yield is 2.2%. However, there is not enough evidence to reject the null hypothesis in case of CAR(-8;+8). Russian acquirers experience

significant negative wealth effect on the longer event window, mean CAR(-8;+8) is -2.9%.

Event Window	Min	Median	Max	Mean	St. Dev.	t-test	Wilcoxon
<i>Panel A (Acquirers from Poland, n=79)</i>							
CAR(-3;+1)	-0.184	0.009	0.344	0.022	0.079	2.512**	2036***
CAR(-8;+8)	-0.213	-0.005	0.332	0.001	0.107	0.143	1456
<i>Panel A (Acquirers from Russia, n=124)</i>							
CAR(-3;+1)	-0.304	-0.009	0.636	-0.006	0.087	-0.719	2977***
CAR(-8;+8)	-0.869	-0.011	0.449	-0.029	0.166	-3.321**	3079***

Note: *p<0.1; **p<0.05; ***p<0.01; t-test was used to calculate the statistical significance of the mean CAR, and Wilcoxon rank sum test was used for the median CAR

Table 4.2: Descriptive statistics of CAR

Source: author's computations.

Further, we test whether the subsamples are statistically different and if it is reasonable to analyze them separately. The Fisher's F-test was applied to verify the homogeneity of variances of the two subsamples. According to it, there is not enough evidence to reject the null hypothesis of equality of variances in the case of 5-days event window. In case of 17-days event window, the variances are statistically different.

Hence, for the comparison of means both Welch's unequal variances T-test and the non-parametric Wilcoxon rank sum test were used. They confirm that both mean and median CAR(-3;+1) of Polish firms are significantly greater than respective indicators of Russian firms. In case of CAR(-8;+8), there is no significant difference between cumulative abnormal returns' mean and median (for the results of the tests and graphical representation see *Appendix 4. Comparison of wealth effect*).

Figure 4.2 depicts the behavior of AAR separately for the two countries. The abnormal returns follow the similar pattern, become more volatile approximately 8 days prior and after the event, demonstrate positive jump on the event day, and subsequent correction. Visually the positive effect of the announcement seems more persistent for Poland, and the abnormal returns appear to be less volatile. The AAR of the Russian acquirers are more volatile, which illustrates the fact that on developing markets the newly incoming information is more slowly incorporated into the stock prices. Besides, on both plots we can observe the increasing volatility before the event day, which may indicate the presence of the information leakage.

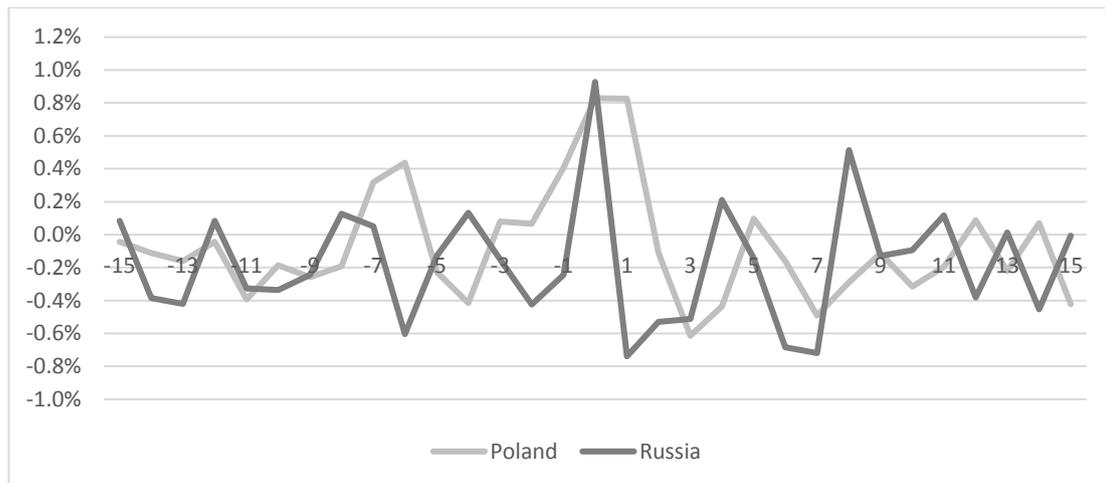


Figure 4.2: AAR on the (-15;+15) event window

Source: author's computations.

4.3 Regression Model Specifications Results

Appendix 5. Correlation Tables reports the descriptive statistics and correlations between all the variables that are used in different model specifications, separately for Polish and Russian acquirers. At the first glance, there is no threat of the multicollinearity in the models as all the correlation coefficients are less than 0.6. Besides, the variance inflation factors (VIFs) were computed for the variables appearing in regression models, none of them exceeds the value of 2, indicating that there is no serious multicollinearity issue.

Appendix 6. Regression Results exhibits the OLS models' estimation results with heteroscedasticity robust standard errors. Models (1)–(4) provide with the estimation results of the basic regression only with control variables. We also report the economic sector dummies coefficients in this model. We do not report them in the subsequent result tables not to overload the results' presentation. Besides, they do not vary principally across the specifications. Results of the models (5)–(8) include industry dummies as independent variables. Variable $CHEMICALS_TAR_i$ included in the regressions, estimated on the subsample with Polish acquirers, and variable OIL_TAR_i —with Russian acquirers. Models (9)–(12) shows the results with the independent variable $DEVELOPED_i$. Estimated models are statistically significant based on the robust F-test of the overall significance.

Acquirers from Poland

Models (1) and (2) account for the control variables used in all the specifications for subsample with the Polish bidder firms. Relative size of the deal has a positive impact on the wealth effect, and it is significant for 5-days event window at 1% level, meaning

that shareholders of Polish acquirers gain more in the short-term period when it comes to the large deals. In case of shorter event window, company's leverage negatively affects the wealth effect (coefficient is significant at the 5% level), as well as the acquisition of the target that is listed on the stock exchange (coefficient is significant at the 10% level). Besides, we can observe that there is a positive effect of the firm's ROA on the wealth effect, which becomes significant for the 17-days event window at 5% level. Industry relatedness also negatively affects the CAR, the coefficient is significant at 10% level for the 5-days event window and at 5% for the 17-days event window. Finally, there is significant at the 10% level and a negative coefficient of the dummy variable indicating the cash financing of the deal for the 17-days event window.

We cannot conclude that belonging to any economic sector has a strong influence on the reaction to the M&A announcement. However, the Telecommunication dummy positively affects the CAR(-8;+8), the coefficient is significant at the 5% level. The rest of the coefficients are not significant at the 10% level.

Results of the evaluations of the models (5) and (6) show that the targets of Polish acquirers that belong to the chemicals industry experience positive and insignificant wealth effect while the M&A deal announcement. Thereby, there is not enough evidence to reject the Hypothesis 2a. However, the direction of the prediction corresponds to our expectations.

Models (9) and (10) test the Hypothesis 3a that Polish acquirers do not experience positive wealth effect when they initiate the cross-border deal in the developed economy. We cannot reject the hypothesis, as the coefficient of the variable $DEVELOPED_i$ is insignificant and negative.

Acquirers from Russia

Basic model evaluation for the sample of transactions with acquirers from Russia is presented in *Appendix 6. Regression Results*, models (3) (shorter event window) and (4) (longer event window). Acquirer's leverage is negatively associated with the shareholder wealth, the coefficient is statistically significant at 1% level for the longer event window of CAR. The acquirers with the higher growth rate are associated with smaller wealth effect. The $GROWTH_RATE_i$ coefficient is negative and significant at the 10% level for the 5-days event windows and 1% level for the 17-days event window. The level of control also influences negatively on the shareholders' wealth, the $CONTROL_i$ coefficients are significant and negative at 5% level in both models. Targeting the listed company has a positive impact on the wealth effect. The $LISTED_i$ coefficient is positive and significant at 10% level in the model (3) and at 1% level in

the model (4). State ownership results into a negative effect on the shareholders' wealth, the $STATE_RUS_i$ coefficient is negative and significant at 10% level for CAR(-3;+1) and at 1% level and CAR(-8;+8).

Estimates of the sector-specific effects indicate, that the investors of companies from Energy sector might receive positive wealth effect as a result of M&A announcement, the coefficient is significant at the 10% level for the longer event window. The announcement from the acquirer in Industrials sector produces a negative effect on the CAR(-3;+1), the coefficient is significant at the 5% level.

The Hypothesis 2b is introduced as we expect the wealth of the Russian acquirers' shareholders to increase if the company buys the target from the oil-and-gas sector. We can observe the expected effect on the 17-days event window, the OIL_TAR_i coefficient in models (8) is positive and significant at 5%, meaning that we reject the Hypothesis 2b.

The $DEVELOPED_i$ coefficient is insignificant and negative (and very close to zero) in the model (11) and positive, but still insignificant in the model (12), so the Hypothesis 3b cannot be rejected.

4.4 Additional Analyses

Additional Control

To check the robustness of the findings, we decided to add additional variables to our specifications. First of all, it has turned, that 22 deals included in the sample were rumored deal according to the information indicated in the Thomson Reuters database. We decided to control for them to check if they seriously bias the results. The variable $RUMOR_i$ takes value 1 if the deal was marked as rumored in the Thomson Reuters, 0 otherwise.

Second, we control for the Global Financial Crisis of 2008-2009. The dummy variable $CRISIS_i$ takes value 1 if the deal was announced from mid-2008 till the mid-2009, 0 otherwise. The models are again estimated with the OLS method with robust errors estimates.

The results are provided in the *Appendix 7. Results with Crisis and Rumor Control*, where additionally controlled models are denoted as (1*)–(12*). The additional controls are never significant, and the results are consistent with the main models. The adjusted R-squared is slightly improved for the basic models (3) and (4). The results of our hypotheses are still valid with this model specification. Remarkable,

that all the economic sector control variables turned insignificant in these model specifications (except some that were significant on the 10% level only for one of the models in the particular specification).

It is necessary to mention, that both Russian and Polish economies were performing differently than the rest of the countries affected by the global financial crisis. As it was mentioned, the Polish economy did not experience the recession, and Russian economy was still growing in 2008, however, it has gone through the recession in 2009, and in 2015-2016 years. Thus, the insignificance of the $CRISIS_i$ dummy variable is expected.

Univariate Analysis

Following the approach of Aybar and Ficici (2009), we perform the univariate analysis for the purpose of the additional testing of the hypotheses across the two subsamples. As all the explanatory variables are dummy variables, we separated the vector of each dependent variable into two sub-vectors based on the explanatory variable of interest, calculated the mean CAR and compared them using the t-test. The results are presented in the Table 3.1.

<i>Acquirers from Poland</i>				<i>Acquirers from Russia</i>			
	Mean		t-stat		Mean		t-stat
<i>DEVELOPED</i>	<i>1</i>	<i>0</i>		<i>DEVELOPED</i>	<i>1</i>	<i>0</i>	
CAR(-3;+1)	3.59%	1.66%*	-0.69	CAR(-3;+1)	-2.42%**	-0.09%	1.76*
CAR(-8;+8)	0.28%	-0.10%	-0.12	CAR(-8;+8)	-6.83%**	-1.72%	1.430
<i>n</i>	<i>18</i>	<i>59</i>		<i>n</i>	<i>16</i>	<i>103</i>	
<i>CHEMICALS_TAR</i>	<i>1</i>	<i>0</i>		<i>OIL_TAR</i>	<i>1</i>	<i>0</i>	
CAR(-3;+1)	2.00%	2.12%	0.06	CAR(-3;+1)	1.16%	-0.63%	1.670
CAR(-8;+8)	3.87%	-0.47%	-1.00	CAR(-8;+8)	5.29%*	-3.6%**	-2.58**
<i>n</i>	<i>8</i>	<i>69</i>		<i>n</i>	<i>16</i>	<i>103</i>	

Note: *p<0.1; **p<0.05; ***p<0.01; the t-test is used to compare groups' means with zero; t-statistic is calculated to compare group means to each other

Table 4.3: Univariate analysis results

Source: author's computations.

The univariate analysis has confirmed our findings that investors of the Russian companies acquiring the targets in the oil-and-gas industry earn significantly more in case of 17-days event window. At the same time, there is an evidence that CAR(-3;+1) of acquirers buying the firms in developed markets are significantly less than those of the rest, which is not consistent with the results of the cross-sectional model estimation. Nevertheless, the effect is opposite that we expected, so the results of univariate analysis do not contradict our conclusion about the hypotheses.

Average Abnormal Returns and Cumulative Abnormal Returns

For the purpose of the more comprehensive illustration of the abnormal returns behavior, we have built the abnormal returns and cumulative abnormal returns (as the running total) trends for the 17-days event window (as it was done by, for example, Danbolt and Maciver, 2012): 8 days before and 8 days after the event. Figure 4.3 and Figure 4.4 represent the trends for bidder firms from Poland and Russia respectively.

The tables with the descriptive statistics of AR and CAR of Russian and Polish acquirers can be found in the Appendix 8. Significance of the mean values was tested using the approach mentioned in the Section 4, where for calculation of the T-statistics, mean is divided by the robust errors rather than the standard errors. The median significance is tested with the Wilcoxon rank sum test.

If we look at the figures of the bidder firms from Poland, we can observe that on the day 0 the average abnormal returns are 0.8% and median abnormal returns are 0.6%, showing the slight positive skew, i.e. the investors more frequently gain on the day of the announcement. The minimum abnormal return is -8% and the maximum is 22.4%, reflecting quite a large variation, however, the standard deviation of the abnormal returns remains quite stable across the days in the event window. In general, the day 0 demonstrates the highest AR, as well as the day 1. Before the event day, the average AR are very close to zero, and after the event day we can observe slight negative correction.

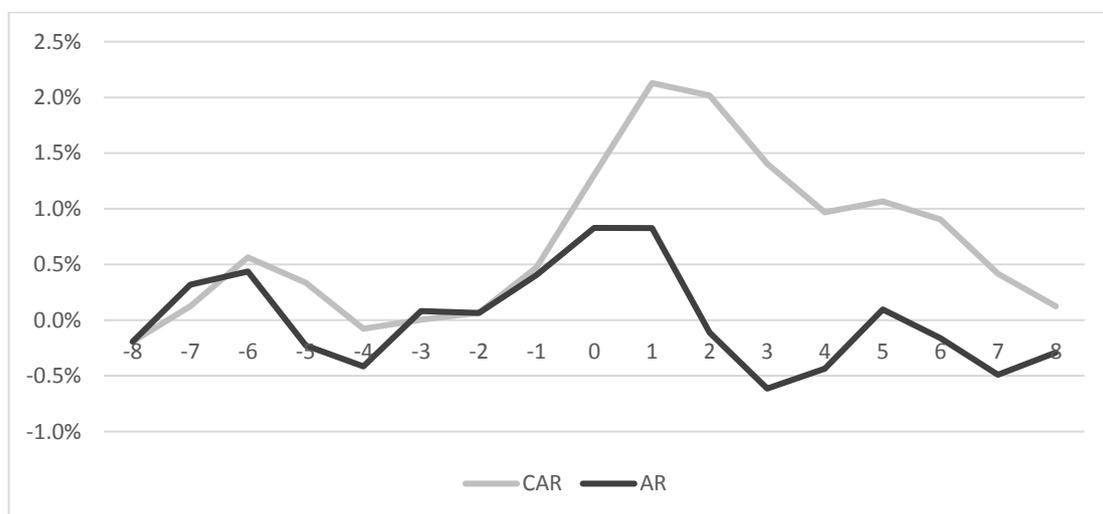


Figure 4.3: Trends of AR and CAR, acquirers from Poland

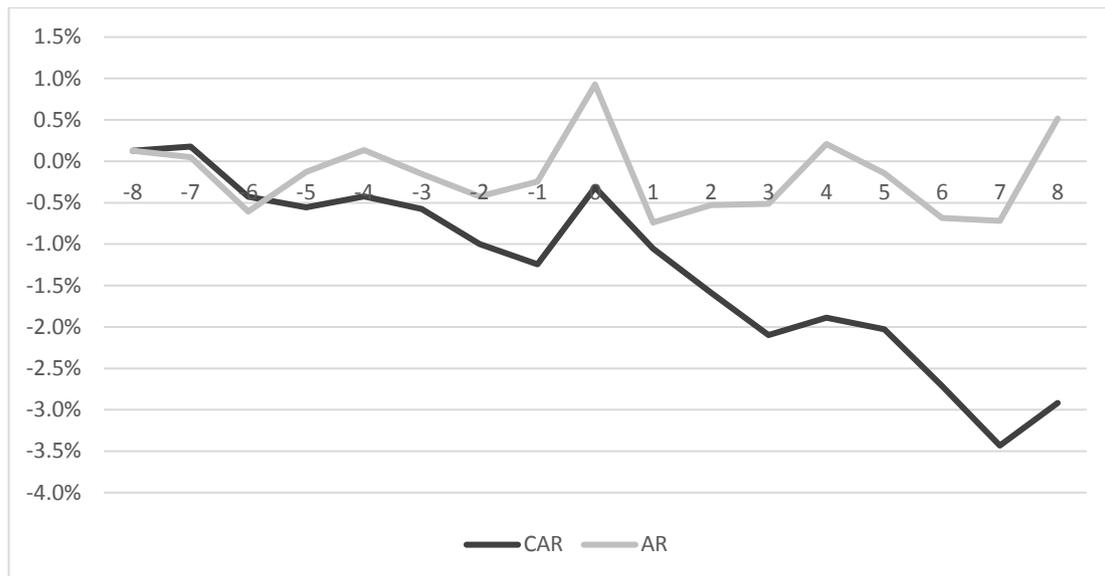


Figure 4.4: Trends of AR and CAR, acquirers from Russia

The exceptional result of 22.4% return on the event day was reached by the company *MSX Resources*, that acquired 70% share in *Mineral Resources Holding SARL*, Luxemburg-based exploration company operating in Mongolia, in August 2014 for USD 132 million (Thomson Reuters, 2014). The 5-days cumulative abnormal return was 16.2%, however, the 17-days CAR was -10%. *MSX Resources* was known as a construction and development company, that through the deal was going to start the business of extraction of copper and gold in Mongolia. However, in 2015 the Polish company had to file bankruptcy and accused the partner of fraud (Money.pl, 2015). In 2016 *MSX Resources* was delisted from the Warsaw Stock Exchange because the company was systematically failing to provide the financial statements.

The average CAR jumps intensively on the day 0, and remains positive till the day 8, confirming the positive short-term performance for the Polish acquiring firms. The average CAR(-8;+8) is very close to zero, but it varies considerably across the sample, from minimum CAR(-8;+8) -21.3% to the maximum CAR(-8;+8) 33.2%.

The deal with the lowest CAR(-8;+8) was initiated by *Arctic Paper SA*, Polish paper producer, which completed the tender offer to acquire a 54.22% interest in *Rottneros*, a Stockholm-based manufacturer of fiberboard, in November 2012. The amount of the transaction was USD 28.275 million. According to the announcement, the purpose of the transaction for *Arctic Paper* and *Rottneros* was to strengthen their position in the European pulp and fine paper industry and increase profitability through synergies (Arcticpaper.com, 2012). The company completed the deal only in the end of February 2013, which was considered as a “long process ending with less success than expected” (Technology.risiinfo.com, 2014).

The biggest CAR(-8;+8) in the sample of Polish acquirers was achieved by *Medicalgorithmics* SA, company engaged in the advanced medical equipment and technology industry. In March 2016 they acquired a 75% share in *Medi-Lynx Cardiac Monitoring LLC*, American provider of ambulatory health care services, for a total USD 34.1 million (Rylukowski, 2016). This deal is the evident illustration of the resource-seeking motive, as by making this deal *Medicalgorithmics* obtained access both to the US market and to the special knowledge in the field of cardiac diagnostic solutions that their new subsidiary possessed.

Investors of acquiring companies from Russia also receive the highest abnormal returns across the event window on the day 0, however, the median AR on that day are very close to 0, reflecting the positive skew. Besides, the AR(0) demonstrate quite high standard deviation, showing the various reaction to the deal announcements. The minimum AR of Russian acquirers on the day 0 was -8.4%, and the maximum reached 48.5%. The latter case was observed in September 2008, when *Polyus Gold Mining* completed its tender offer to acquire a 50.1% interest in *KazakhGold Group Ltd* (Kazakhstan), a gold mining company, in a stock swap transaction valued at USD 300 million (Interfax.ru, 2009). Although *Polyus Gold* was rumored to be planning to acquire a 50.1% interest in *KazakhGold*, the stock market reaction on the deal date was outstanding in comparison to the preceding days' abnormal returns. Despite the negative AR in the subsequent days, the CAR(-8;+8) of that deal reached 41.2%. This deal can also be viewed as the example of the resource-seeking motive, but here it goes solely about the access to the natural resources.

The CAR trend on the 17-days event window is negative with the slight spike on the day 0. The CAR(-8;+8) are significantly negative, as it was shown before. The minimum CAR(-8;+8) reaches -86.9%, the deal took place in August 2007, when telecommunications services company *VimpelCom* acquired *Korporatsiya Severnaya Korona*, Irkutsk region mobile operator, for USD \$232 million. The value of the deal was considered as fairly expensive—almost 7 times *VimpelCom*'s previous year revenue and more than 20 times EBITDA (Vedomosti.ru, 2007). The transaction was politically motivated for *VimpelCom*, as they were primarily going to cover their blank spot of the Far East region. By the time of the transaction, the level of penetration of cellular communication in the Irkutsk region had reached almost 100%. Apparently, for acquirer's investors the costs of the deal were too high in comparison to the potential benefit.

4.5 Comparison and Discussion

We decided to analyze the deals of Russian and Polish acquirers separately due to different institutional context and background of the two economies. Besides, this difference was confirmed statistically. The comparison of the results obtained from the two subsamples has shown that we can confirm the presence of the country effects.

First, the statistical analysis reports that the CAR of Polish acquirers are significantly greater than the CAR of the Russian acquirers for the [-3: +1] event window. Moreover, CAR of Polish acquirers are significantly positive, on average shareholders obtain 2.2% abnormal yield on the 5-days event window, while the abnormal yield of the shareholders of Russian bidder firms is not statistically different from zero on the same event window. We observe this effect visually as well: the plot of the average abnormal returns across acquirers from Poland show that the abnormal yield remains positive each day three days before the deal announcement and one day after the announcement, with the sharp positive spike on the event day. Same positive jump can be observed in case of acquirers from Russia as well, but it is offset by the negative dropdowns of the abnormal returns on the previous and subsequent days.

We conclude that announcements about mergers and acquisitions are evaluated positively by the investors of the Polish firms. This is in line with the results obtained by Zaremba and Plotnicky (2015), they received statistical evidence of the positive CAR across the CEE acquirers. Authors highlight, that this contradicts the common evidence from the developed markets studies. On the [-8; +8] event window, the positive effect becomes insignificant. The wealth effect on the 17-days event window for Russian acquirers is significantly negative, which is not very typical for the emerging economies according to the previous findings; the average abnormal yield for the investors is -2.9%.

Such remarkable difference between the subsamples is the subject for the discussion and it requires the additional investigation. In general, investors experience the negative wealth effect if the potential benefits associated with the transaction are outweighed by the expected costs, related to the acquisition. Merger or acquisition deal is a complex process and, as it has been discussed earlier, it can possibly affect the shareholders' wealth in multiple directions. The study of Bertrand and Betschinger (2011), that also investigates the M&A effect on the Russian market, suggests, that negative influence of the M&A deal is more likely to occur when the acquisition is performed solely for the purpose of the increase in market power or building an empire. The firm value is expected to decrease in the latter case as the purpose of the acquisition is the exploitation of the free cash flow available to the managers.

The institutional development plays a vital role in any economic activity. In Russia legal and institutional environment can be characterized as weak (Hoskisson et al., 2013); it is associated with less shareholder protection, as managers in such environment are more likely to take opportunistic decisions. Besides, immature markets bear big portion of the operational and investment risk due to institutional weakness, which is expressed in unproductive and corrupted legal system, lack of property rights protection, mostly restrictive regulations, and trade barriers (Brouthers, 2002). Porta et al. (1998) make the conclusion that countries with the limited political and economic freedom perform worse in terms of business opportunities. Thus, the negative short-term M&A performance of Russian bidders may be the results of the concerns regarding the institutional hazards.

When we evaluate the descriptive statistics of the CAR for both subsamples, we can observe the bigger variance in CAR of Russian acquirers, which is corresponding to the fact that on the developing markets the new information is incorporated slowly, and they are more volatile (which was also confirmed before by the visual analysis of the abnormal returns behavior). Maximum and minimum CAR are higher in absolute values for the Russian companies for both considered event windows.

The descriptive statistics suggest that for both event windows and both countries there are cases with positive and negative CAR, meaning that the M&A transaction announcement can both create and destruct the short-term value for the particular firm. Thus, the firm and deal characteristics might be relevant factors for the investors' reaction. To investigate that, we performed the regression analysis to examine the influence of the specific factors on the shareholders' short-term wealth.

The first conclusion from the obtained results is that not all the traditional factors from the developed markets studies are relevant for the current models, as a number of control variables' coefficients turned out to be insignificant. Another interesting phenomenon is that particular factors produce a different direction of the influence, which is possibly connected with the specific characteristics of the countries.

The relative size of the transaction has turned out to be the positive factor for both subsamples, although it is significant only in case of acquirers from Poland for the 5-days event window. This is consistent with the findings of Asquith et al. 1983; Moeller et al., 2004; Masulis et al., 2007; Bhagat et al., 2011. However, some studies for the developing countries report relative deal size as the insignificant factor (Aybar and Ficici, 2009), as we have for the Russian subsample. We can suggest that investors

of the Polish firms are more confident that each money unit spent on the acquisition will bring them additional gain, regardless of the transaction size.

Acquirer's leverage is a negative and significant factor for the shareholders of both Russian and Polish bidder firms. This evidence mostly contradicts the previous findings. Similar results were obtained by Lang et al. (1991), but they note, that this outcome is surprising. The proposed explanation is that the acquirers with the higher debt burden are expected to be more aggressive in financing their growth, which results in unstable earnings and higher interest expenses, and outweighs the potential benefits associated with the deal.

Only REL_SIZE_i and $LEVERAGE_i$ variables were similar for Russian and Polish acquirers in terms of the direction of the influence, the rest have shown generally divergent results.

We decided to include the ROA as the factor measuring the bidder firm's past performance. It produces a strong positive effect for the Polish bidder firms' shareholders. This is in line with the findings of Masulis et al. (2007). The influence of ROA on CAR of Russian acquirers is negative, however, it is insignificant. Remarkable, that in the previous findings there is also evidence of the negative influence of the acquirer's past performance, e.g. Gubbi et al. (2010).

Ownership status of the target firm similarly appeared to produce the opposite influence on the wealth effect of the Polish and Russian acquirers' shareholders. In case of the Polish acquirers, it is negative and significant for listed targets on the 5-days event window specification, which is consistent with the previous findings. The public company has more complex structure, and the greater price has to be paid to satisfy the demands of the diverse group of the shareholders. Additionally, the managerial opportunism is more likely to be expected in case of a listed firm acquisition. Surprisingly, Russian firms' shareholders experience positive and significant wealth effect associated with the listed company acquisition announcement.

Growth rate of the acquirer, measured as the revenue growth rate, performs as highly insignificant factor for the Polish acquirers' CAR and negative significant for the Russian acquirers' CAR. Same pattern exhibits the $CONTROL_i$ variable, measured as the share of the stake acquired. This suggests that investors of Russian bidder firms evaluate negatively the M&A transactions initiated by the firms, that are characterized by excessive growth. The negative effect of the level of control factors can be explained by the expectations of the opportunistic behavior from the acquirer (Hanvanich and

Cavusgil, 2001). We do not observe such expectations on the Polish market for the considered subsample.

Industry relatedness is a very insignificant factor for the subsample of Russian acquirers, and negative significant factor for the shareholders of the Polish bidders, which is again inconsistent with the existing literature findings.

We have failed to find the strong support of the significant influence of the deal cash financing on the shareholders' wealth of the Polish and Russian acquirers. The direction of the influence is the opposite across subsamples. While for the Russian bidder firms it is positive (as mostly confirmed in the literature), investors of Polish bidders receive negative wealth effect, which appears to be slightly significant for the 17-days event window.

State-ownership of the Russian acquirers produces a significant negative influence on the shareholders' wealth. This outcome is in line with the results of Bertrand and Betschinger (2012). They anticipated this result, as state-owned firms "per ce follow other objectives as profit maximization". Besides, state enterprises are widely considered as inflexible and less efficient.

We cannot make a conclusion about the outstanding influence of the fact of belonging to the particular economic sector. In case of the Polish acquirers, we can observe that telecommunication service produce positive effect on the CAR(-8;+8). In case of Russian firms, we can observe that firms from the Industrials economic sector performs slightly worse in terms of CAR(-3;+1), as well as the slightly significant positive influence of belonging to the Energy economic sector.

Nevertheless, we have received the partial evidence in favour of the resource-seeking hypothesis in case of Russian acquirers: the acquisition of the firm that belongs to the key industry (oil-and-gas) produces positive reaction by the investors. The effect of the acquisition of key industry target is also positive for the Polish market, but insignificant. The acquisition of the developed economy target does not produce the significant influence on the wealth effect, moreover, the univariate analysis of [-3; +1] event window has shown, that deals targeting the developed market firm produce the significantly negative abnormal returns. First, it should be taken into account, that the number of the cross-border deals with the participation of the developed economy target is quite low in the current research—less than 20 for both subsamples. Besides, the acquisition of the target company from the developed country must be associated with higher overall transaction costs, so it is possible to conclude, that investors do not consider the benefits from the transaction high enough to outweigh such costs. The

inclusion of the control variables for the crisis period and the rumored deal confirmed the robustness of the findings. Besides, with the inclusion of these controls the economic sector dummies became practically insignificant.

5 Conclusion

Although there has been an acceleration of the M&A activity in the Central and Eastern European region (Grantthornton.global, 2016), there is a little research on the M&A effects in this region. There are several reasons for that: lack of the data availability due to the short history of the capital market system in these countries, lower M&A activity because of the same reason, potential problems with the accounting data reliability. In our study we examine the M&A deals effects for the two largest economies in the CEE region—Russia and Poland.

The main question that scholars and practitioners are interested in when it comes to the M&A deals is whether they are indeed value-creative, or value-destructive? By the analysis of the 79 deals initiated by the Polish acquirers, we have found out, that the M&A transaction announcement creates positive short-term value for the shareholders, which is not consistent with the developed countries findings. Presumably, the possibilities to expand to the local and foreign markets are not fully exploited yet, and the previous success makes the investors perceive the potential deals more confidently. The local experts confirm, that in the present days the Polish market players have the courage to initiate the M&A transactions on the domestic market and overseas (Financialobserver.eu, 2016).

Analyzing the sample of Russian acquirers, consisting of the 124 deals, we have found out, that the M&A announcements produce the negative short-term wealth effect for Russian bidders' investors. In fact, this is the typical result of the M&A studies devoted to the M&A value effects for the acquirers, that is usually explained by the agency motives of the management. Nevertheless, we suggest, that another possible explanation is that in Russia the motives and drivers of the M&A activity and efficiency may be influenced by the institutional hazards. The investors expect the legal and other costs of the subsequent co-integration as too high in comparison to the potential benefits of the deal.

During the cross-sectional analysis we have found, that for the Polish and Russian firms there are different main determinants of the M&A effect. In case of the Polish firms, relative size of the deal, level of the acquirer's leverage, past performance of the acquirer and the industry sector relatedness with the target firm impact significantly the short-term value of the shareholders. In case of Russian acquirers, the investors take into account the leverage, revenue growth rate, percentage stake pursued

by the bidder, and the ownership status of the target firm (private or listed, state-owned or not).

We have received the limited evidence confirming the resource-seeking motive of the acquirers. The result is that investors of the Russian bidders indeed obtain positive short-term value when the target operates in the key industry (oil-and-gas). At the same time, acquisitions of the targets from the chemical industry by Polish firms do not produce the significant effect. Nevertheless, this inference should be treated with caution, as only 8 of 77 transactions in the Polish sample involve the targets of the chemicals industry. Thus, this requires additional investigation in the future research. The acquisition of the target in the developed economy also did not show the expected positive influence. This result may be associated with the high potential costs of the expanding abroad. Nevertheless, there is individual evidence of the successful and value creating cross-border deals, such as between Polish *Medicalgorithmics* and American *Medi-Lynx Cardiac Monitoring*.

The finding of the study should be considered as preliminary, given some of the research limitations. Firstly, we touch only some aspects of the M&A activity in the CEE region, as this topic is quite new and understudied. We identify only a few possible sources for the M&A value creation, and the future research may concentrate on other specific measures and control for the other important M&A determinants.

Secondly, we have decided to apply the event study methodology, which is widely considered to be a reliable procedure for the M&A value effect assessment, but also brings some restrictions. First, it requires to retain only the publicly listed firms, which produces the selection bias problem. Thus, we confirm, that the results might not be applicable to the private acquirers. Second, this methodology assigns the investors as the main stakeholders of the firm, and their short-term response as the true assessment of the M&A effect. Third, despite the fact, that short-term cumulative abnormal returns are considered as a good measure of the value effect of the M&A deals, they still assess only the short-term value, and the long-term consequences require the additional investigation. Thus, the present study examines how shareholders recognize and value the M&A activity and the underlying resource-seeking motives in the short-run. The future research may go beyond these limitations.

Finally, due to the short history of the M&A activity in the CEE region, our sample is quite limited, with a little number of the cross-border M&A deals with the developed market firms. Future research may verify whether these deals are value-creating, as well as extend the study on the other countries in the CEE region

when there will be enough cases for the solid research. As this study has shown, it should be very important to account for the diverse institutional setting.

To summarize, the thesis contributes to the existing research focusing on the M&A activity by the emerging markets in several ways. First, the existing literature lacks the comparative studies in the M&A activity of CEE firms. We show the differences between the two biggest economies in the region, find support for some existing evidence, as well as find partial inconsistency with the previous findings. Second, this study reveals the main determinants of the M&A initiated by the Polish and Russian firms. We elaborate the idea that emerging market firms may have different motives for pursuing the inorganic expansion through M&A. Third, our study has practical implications, as it shows, that capability of the M&A transactions to create value are strongly dependent on the institutional environment, which should be considered by investors and policy makers.

6 Bibliography

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Appendix 1. Sample Acquirers

Company Name	Listing Market
AB SA	Warsaw Stock Exchange
ABM Solid SA	Warsaw Stock Exchange
Agora SA	Warsaw Stock Exchange
Amica Wronki SA	Warsaw Stock Exchange
AmRest Holdings SE	Warsaw Stock Exchange
Aparator SA	Warsaw Stock Exchange
Arctic Paper SA	Warsaw Stock Exchange
Asseco Poland SA	Warsaw Stock Exchange
Bakalland SA	Warsaw Stock Exchange
Bioton SA	Warsaw Stock Exchange
Bomi SA	Warsaw Stock Exchange
Budimex SA	Warsaw Stock Exchange
Bumeh SA	Warsaw Stock Exchange
CCC SA	Warsaw Stock Exchange
Centrozap SA	Warsaw Stock Exchange
Cersanit SA	Warsaw Stock Exchange
Cyfrowy Polsat SA	Warsaw Stock Exchange
EKO Holding SA	Warsaw Stock Exchange
Elemental Holding SA	Warsaw Stock Exchange
ENEA SA	Warsaw Stock Exchange
Energomontaz Poludnie SA	Warsaw Stock Exchange
Famur SA	Warsaw Stock Exchange
Gielda Papierow Wartosciowych w Warszawie SA	Warsaw Stock Exchange
Global Cosmed SA	Warsaw Stock Exchange
Graal SA	Warsaw Stock Exchange
Hydrobudowa Polska SA	Warsaw Stock Exchange
Hyperion SA	Warsaw Stock Exchange
Integer.pl SA	Warsaw Stock Exchange
IZNS Ilawa SA	Warsaw Stock Exchange
IZO BLOK SA	Warsaw Stock Exchange
KGHM Polska Miedz SA	Warsaw Stock Exchange
LPP SA	Warsaw Stock Exchange
Medicalgorithmics SA	Warsaw Stock Exchange
Mercor SA	Warsaw Stock Exchange
Mondi Packaging Paper Swiece SA	Warsaw Stock Exchange
MSX Resources SA	Warsaw Stock Exchange
Netia SA	Warsaw Stock Exchange
Paged SA	Warsaw Stock Exchange
PBG SA	Warsaw Stock Exchange
Petrolinvest SA	Warsaw Stock Exchange
PGE Polska Grupa Energetyczna SA	Warsaw Stock Exchange
PKP Cargo SA	Warsaw Stock Exchange
Polska Grupa Farmaceutyczna SA	Warsaw Stock Exchange
Polska Grupa Odlewnicza SA	Warsaw Stock Exchange
Polski Koncern Naftowy ORLEN SA	Warsaw Stock Exchange
TAURON Polska Energia SA	Warsaw Stock Exchange
Teta SA	Warsaw Stock Exchange
TVN SA	Warsaw Stock Exchange
Vistula Group SA	Warsaw Stock Exchange
Vistula SA	Warsaw Stock Exchange
Wasko SA	Warsaw Stock Exchange
Work Service SA	Warsaw Stock Exchange
Zaklady Azotowe Pulawy SA	Warsaw Stock Exchange
Zaklady Azotowe w Tarnowie- Moscicach SA	Warsaw Stock Exchange
Zaklady Chemiczne POLICE SA	Warsaw Stock Exchange
Zastal SA	Warsaw Stock Exchange

Appendix Table 1: List of the acquirers from Poland

Source: Thomson Reuters database.

Company Name	Listing Market
Akron PAO	Moscow Interbank Currency Exchange (MICEX)
Aktsionernaia Finansovaia Korporatsiia Sistema PAO	Moscow Interbank Currency Exchange (MICEX)
Aptechnaia set' 36,6 PAO	Moscow Interbank Currency Exchange (MICEX)
Armada PAO	Moscow Interbank Currency Exchange (MICEX)
Bank VTB PAO	Moscow Interbank Currency Exchange (MICEX)
Bashinformsviaz' PAO	Moscow Interbank Currency Exchange (MICEX)
DIXY Group PAO	Moscow Interbank Currency Exchange (MICEX)
Farmstandart PAO	Moscow Interbank Currency Exchange (MICEX)
Federal'naia gidrogeneriruiushchaia kompaniia - RusGidro PAO	Moscow Interbank Currency Exchange (MICEX)
Golden Telecom Inc	NASDAQ Global Market
Gorno-Metallurgicheskaia Kompaniia Noril'skii Nikel' PAO	Moscow Interbank Currency Exchange (MICEX)
Gruppa LSR PAO	Moscow Interbank Currency Exchange (MICEX)
Cheliabinskii tsinkovyi zavod PAO	Moscow Interbank Currency Exchange (MICEX)
Inter RAO EES PAO	Moscow Interbank Currency Exchange (MICEX)
International Marketing & Sales Group PLC{IMSG}	London Stock Exchange
Irkutskoe PAO energetiki i elektrifikatsii	Moscow Interbank Currency Exchange (MICEX)
Krasnoiarskaia GES PAO	Moscow Interbank Currency Exchange (MICEX)
Lenenergo PAO	Moscow Interbank Currency Exchange (MICEX)
Mail ru Group OOO	London Stock Exchange
Mechel PAO	Moscow Interbank Currency Exchange (MICEX)
Mosenergo OAO	Moscow Interbank Currency Exchange (MICEX)
Moskovskaia Gorodskaia Telefonnaia Set' PAO	Moscow Interbank Currency Exchange (MICEX)
Mostotrest PAO	Moscow Interbank Currency Exchange (MICEX)
Neftianaia Kompaniia LUKOIL PAO	Moscow Interbank Currency Exchange (MICEX)
Neftianaia Kompaniia Rosneft' PAO	Moscow Interbank Currency Exchange (MICEX)
NOVATEK PAO	Moscow Interbank Currency Exchange (MICEX)
Novolipetskii Metallurgicheskii Kombinat PAO	Moscow Interbank Currency Exchange (MICEX)
OAO "Gazprom"	Moscow Interbank Currency Exchange (MICEX)
OAO "Gruppa Cherkizovo"	Moscow Interbank Currency Exchange (MICEX)
OAO "Komstar-Ob'yedinennye TeleSistemy"	London Stock Exchange
OAO "Mobil'nye TeleSistemy"	Moscow Interbank Currency Exchange (MICEX)
OAO "Novorossiyskiy Morskoy Torgovyi Port"	Moscow Interbank Currency Exchange (MICEX)
OAO "Rostelekom"	Moscow Interbank Currency Exchange (MICEX)
OAO "Sberbank Rossii"	Moscow Interbank Currency Exchange (MICEX)
OAO "TNK-BP Holding"	Moscow Interbank Currency Exchange (MICEX)
OAO "Vtoraya generiruyushchaya kompaniia optovogo rynka elektroenergii"	Moscow Interbank Currency Exchange (MICEX)
OAO Aktsionernaya Neftyanaya Kompaniia Bashneft	Moscow Interbank Currency Exchange (MICEX)
OAO Magnitogorskiy Metallurgicheskii Kombinat	Moscow Interbank Currency Exchange (MICEX)
OAO SeverStal	Moscow Interbank Currency Exchange (MICEX)
Ob''edinennaia aviastroitel'naia korporatsiia PAO	Moscow Interbank Currency Exchange (MICEX)
Polius Zoloto OAO	Moscow Interbank Currency Exchange (MICEX)
Polymetal International PLC	London Stock Exchange
Pyaterochka Holding NV	London Stock Exchange
QIWI PLC	NASDAQ Global Market
Rostelekom PAO	Moscow Interbank Currency Exchange (MICEX)
Sberbank Rossii OAO	Moscow Interbank Currency Exchange (MICEX)
Severstal' PAO	Moscow Interbank Currency Exchange (MICEX)
Trubnaia Metallurgicheskaia Kompaniia PAO	Moscow Interbank Currency Exchange (MICEX)
Uralkalii PAO	Moscow Interbank Currency Exchange (MICEX)
Vympel-Kommunikatsii PAO	NASDAQ Global Market
X5 Retail Group NV	London Stock Exchange
Yandex NV	NASDAQ Global Market

Appendix Table 2: List of the acquirers from Russia

Source: Thomson Reuters database.

Appendix 2. Economic Sector Distribution

<i>Panel A: Polish acquirers</i>		<i>Panel B: Russian acquirers</i>	
Economic sector / industry sector	# deals	Economic sector / industry sector	# deals
Consumer Goods & Services		Telecommunications Services	
Homebuilding / Construction Supplies	7	Telecommunications Services	33
Media / Publishing	6		33
Textiles / Apparel	4	Basic Materials	
Household Goods	3	Metal / Mining	22
Food / Tobacco	2	Construction / Engineering / Materials	5
Food / Drug Retailing	2	Chemicals	1
Hotels / Entertainment Services	2		28
Personal / Household Products / Services	1	Energy	
	27	Oil / Gas	20
Basic Materials		Energy Related Equipment / Services	1
Metal / Mining	7		21
Chemicals	6	Consumer Goods & Services	
Construction / Engineering / Materials	4	Retailers - Diversified	7
Paper / Forest Products	3	Media / Publishing	4
	20	Food / Drug Retailing	2
Industrials		Food / Tobacco	2
Machinery / Equipment / Components	4	Homebuilding / Construction Supplies	2
Commercial Services / Supplies	2		17
Rails / Roads Transportation	1	Utilities	
	7	Electric Utilities	10
Technology			10
Software / IT Services	6	Technology	
Computers / Office Equipment	1	Software / IT Services	4
	7		4
Healthcare		Industrials	
Pharmaceuticals	5	Marine Services	1
Healthcare Equipment / Supplies	1	Aerospace / Defense	1
	6		2
Telecommunications Services		Healthcare	
Telecommunications Services	4	Pharmaceuticals	2
	4		2
Utilities		Total	
Electric Utilities	3		117
	3		
Energy			
Oil / Gas	2		
Coal	1		
	3		
Total	77		

Appendix Table 3: Distribution of acquirers across economic sectors and industries according to the TRBC

Source: Thomson Reuters database; author's computations.

Appendix 3. Target Countries Distribution

	Poland	Russia	
<i>Domestic Deals</i>			
Poland	52		53
Russia		88	88
	<i>52</i>	<i>88</i>	<i>141</i>
<i>Developing Markets</i>			
Armenia		3	3
Belarus		3	3
Bulgaria		1	1
Cambodia		1	1
Cyprus	1	1	2
Georgia		1	1
China	1		1
Kazakhstan		2	2
Kyrgyzstan		1	1
Laos		1	1
Oman		1	1
Russia	2		2
Senegal	1		1
Serbia		1	1
Turkey	3	2	5
Ukraine		1	1
Uzbekistan		1	1
	<i>8</i>	<i>20</i>	<i>28</i>
<i>Developed Markets</i>			
Austria	1		1
Canada	2	2	4
Czechia	1		1
Finland		1	1
Germany	1	1	2
Greece		1	1
Hungary	2		2
Italy		2	2
Lithuania	2		2
Luxembourg	1		1
Netherlands	1	2	3
Singapore		1	1
Spain	3		3
Sweden	1		1
Switzerland	1		1
United Kingdom	1	2	3
United States	1	4	5
	<i>18</i>	<i>16</i>	<i>34</i>
	<i>78</i>	<i>124</i>	<i>203</i>

Appendix Table 4: Distribution of the M&A deals across target countries

Source: Thomson Reuters database; author's computations.

Appendix 4. Comparison of wealth effects

Event Window	F-test
CAR(-3;+1)	0.8165
CAR(-8;+8)	0.41082***

Note: ***p<0.01

Appendix Table 5: Results of Fisher's F-tests for homogeneity of variances for Russia (n=124) and Poland (n=79) subsamples

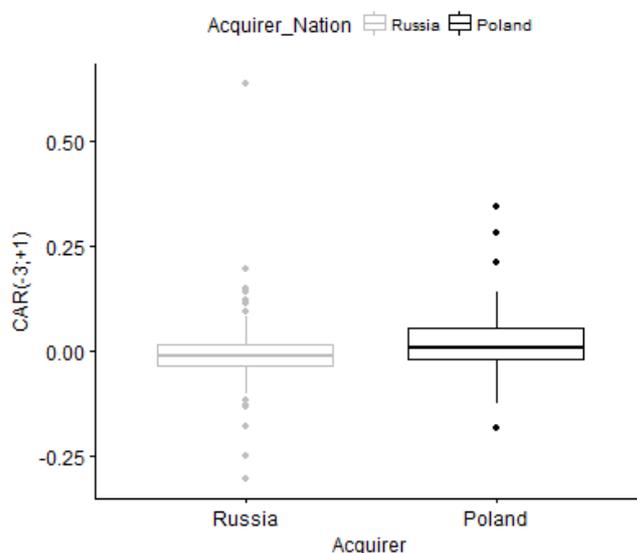
Source: author's computations.

Event Window	t-test	Wilcoxon
CAR(-3;+1)	-2.4063**	3635***
CAR(-8;+8)	-1.5871	4596

Note: **p<0.05; ***p<0.01

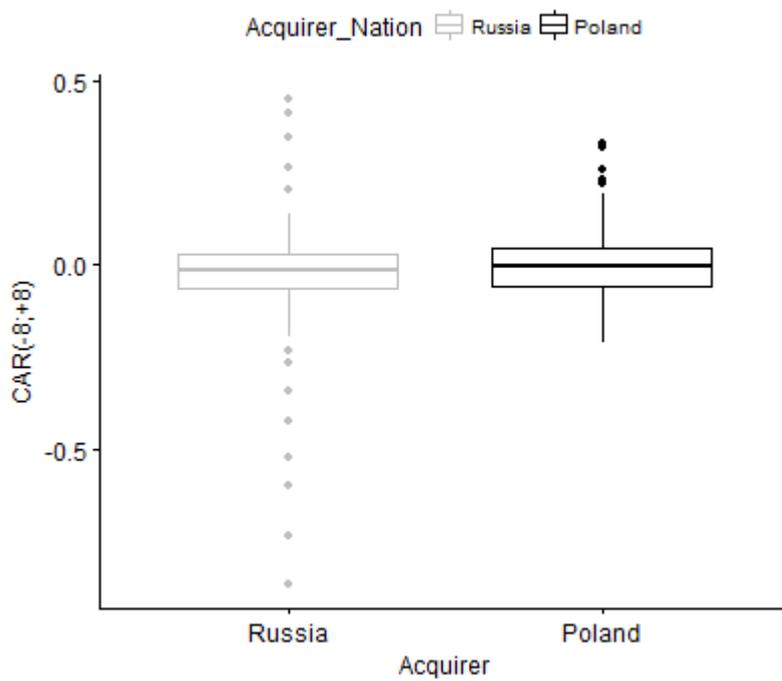
Appendix Table 6: Results of Welch's unequal variances T-test and Wilcoxon's rank sum test for Russia (n=124) and Poland (n=79) subsamples

Source: author's computations.



Appendix Figure 1: Box plot of CAR(-3;+1) separately for acquirers from Russia and Poland

Source: author's computations.



Appendix Figure 2: Box plot of CAR(-8;+8) separately for acquirers from Russia and Poland

Source: author's computations.

Appendix 5. Correlation Tables

Acquirers from Poland (n=77)

	Mean	St. Dev.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
(1) CAR(-3;+1)	0.021	0.079	1																		
(2) CAR(-8;+8)	-0.0001	0.108	0.68***	1																	
(3) DEVELOPED	0.234	0.426	0.1	0.01	1																
(4) CHEMICALS_TAR	0.104	0.307	0	0.12	0.01	1															
(5) REL_SIZE	0.311	0.452	0.50***	0.22	0.18	-0.06	1														
(6) LEVERAGE	0.165	0.135	-0.29*	-0.16	-0.16	-0.19	-0.18	1													
(7) ROA	0.083	0.103	0.09	0.23*	0.08	0.18	0	-0.11	1												
(8) GROWTH_RATE	0.334	0.567	-0.08	0.04	-0.03	0.04	-0.07	0	-0.12	1											
(9) CONTROL	0.796	0.227	0.09	0.17	-0.01	-0.12	0.15	-0.09	0.11	0.04	1										
(10) LISTED	0.208	0.408	-0.2	-0.17	-0.06	0.04	0	-0.06	-0.04	0.07	-0.14	1									
(11) IND_REL	0.688	0.466	-0.06	-0.09	0.17	0.23*	-0.08	-0.41***	0.29*	-0.16	-0.01	0	1								
(12) CASH	0.455	0.501	-0.01	-0.15	0.05	0.03	-0.02	-0.12	-0.05	-0.18	0.13	-0.15	-0.01	1							
(13) SECTOR_1	0.26	0.441	-0.13	0.06	0.02	0.57***	-0.15	-0.29*	0.03	0.18	-0.08	0.28*	0.08	-0.06	1						
(14) SECTOR_3	0.039	0.195	0.03	-0.04	0.05	-0.07	0.02	0.16	-0.14	0.03	0.04	0.23*	-0.15	-0.05	-0.12	1					
(15) SECTOR_4	0.078	0.27	0.18	0.13	0.18	-0.1	-0.02	-0.01	-0.02	0.06	-0.31**	-0.15	0.09	-0.07	-0.17	-0.06	1				
(16) SECTOR_5	0.104	0.307	0.14	0.06	0.01	-0.12	0.04	-0.01	0.08	-0.18	-0.13	-0.17	-0.05	0.03	-0.2	-0.07	-0.1	1			
(17) SECTOR_6	0.091	0.289	0.02	-0.12	0.15	-0.11	-0.11	-0.11	-0.01	0.14	0.08	-0.05	0.12	0.07	-0.19	-0.06	-0.09	-0.11	1		
(18) SECTOR_7	0.052	0.223	0.01	0.11	-0.13	-0.08	0.03	-0.13	-0.18	-0.17	0.15	-0.12	0.03	0.14	-0.14	-0.05	-0.07	-0.08	-0.07	1	
(19) SECTOR_8	0.039	0.195	-0.08	-0.05	-0.11	-0.07	-0.09	-0.11	-0.04	-0.1	0.08	0.06	-0.01	0.22	-0.12	-0.04	-0.06	-0.07	-0.06	-0.05	1

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix Table 7: Descriptive statistics and correlation coefficients

Source: author's computations.

Acquirers from Russia (n=117)

	Mean	St. Dev.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
(1) CAR(-3;+1)	-0.004	0.086	1																			
(2) CAR(-8;+8)	-0.024	0.157	0.61***	1																		
(3) DEVELOPED	0.134	0.343	-0.09	-0.11	1																	
(4) OIL_TAR	0.134	0.343	0.07	0.19*	0.06	1																
(5) REL_SIZE	0.156	0.453	0.14	0.12	0.05	-0.12	1															
(6) LEVERAGE	0.263	0.158	-0.13	-0.05	-0.21*	-0.09	0.01	1														
(7) ROA	0.091	0.087	-0.03	-0.09	0.22*	0.15	0.02	-0.39***	1													
(8) GROWTH_RATE	0.209	0.345	-0.14	-0.23*	0.22*	-0.1	-0.20*	-0.34***	0.19*	1												
(9) CONTROL	0.851	0.226	-0.21*	-0.22*	0.09	-0.23*	0.17	0.05	-0.1	-0.12	1											
(10) LISTED	0.134	0.343	0.25**	0.24**	0.06	0.21*	0.21*	-0.03	-0.01	-0.02	-0.16	1										
(11) IND_REL	0.689	0.465	0.07	-0.1	0.16	0.05	0.19*	-0.05	-0.01	-0.11	0.25**	0.05	1									
(12) CASH	0.378	0.487	-0.11	-0.08	0.1	-0.05	-0.08	-0.04	0.07	-0.02	0.20*	0	-0.04	1								
(13) STATE_RUS	0.529	0.501	-0.11	-0.02	0.08	0.27**	-0.05	-0.37***	0.16	-0.17	-0.13	0.17	-0.01	0.11	1							
(14) SECTOR_2	0.143	0.351	-0.08	-0.12	0.12	-0.16	0.24**	0.04	-0.24**	0.28**	0.23*	-0.09	0.07	-0.02	-0.43***	1						
(15) SECTOR_3	0.176	0.383	-0.04	0.03	-0.05	0.59***	-0.15	-0.17	0.13	-0.08	-0.14	-0.05	0.03	-0.09	0.44***	-0.19*	1					
(16) SECTOR_4	0.017	0.129	-0.05	-0.12	0.14	-0.05	0.03	-0.13	0.19*	0.05	0.09	-0.05	0.09	0.03	-0.14	-0.05	-0.06	1				
(17) SECTOR_5	0.017	0.129	-0.1	0.01	-0.05	-0.05	0.18*	0.12	-0.01	-0.04	0.03	0.14	0.09	0.17	0.12	-0.05	-0.06	-0.02	1			
(18) SECTOR_6	0.034	0.181	0.12	0.07	-0.07	-0.07	-0.01	-0.18*	0.05	-0.13	0.06	-0.07	0.02	0.05	-0.01	-0.08	-0.09	-0.02	-0.02	1		
(19) SECTOR_7	0.294	0.458	0.07	0.05	-0.25**	-0.15	-0.15	0.32***	-0.06	-0.06	-0.02	-0.09	-0.08	0.03	-0.43***	-0.26**	-0.30***	-0.08	-0.08	-0.12	1	
(20) SECTOR_8	0.084	0.279	0.05	0.12	-0.12	-0.12	0.01	-0.13	-0.18*	-0.01	-0.1	0.06	-0.06	-0.05	0.29**	-0.12	-0.14	-0.04	-0.04	-0.06	-0.20*	1

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix Table 8: Descriptive statistics and correlation coefficients

Source: author's computations.

Appendix 6. Regression Results

<i>Acquirers nation</i> Dependent variable Model #	POL		RUS	
	CAR(-3;+1) (1)	CAR(-8;+8) (2)	CAR(-3;+1) (3)	CAR(-8;+8) (4)
REL_SIZE	0.072*** (0.024)	0.045 (0.033)	0.024 (0.021)	0.037 (0.029)
LEVERAGE	-0.186** (0.077)	-0.092 (0.102)	-0.186 (0.138)	-0.310*** (0.092)
ROA	0.075 (0.066)	0.302*** (0.108)	-0.1 (0.128)	-0.205 (0.164)
GROWTH_RATE	-0.013 (0.013)	0.006 (0.023)	-0.062* (0.033)	-0.156*** (0.055)
CONTROL	0.017 (0.034)	0.078 (0.056)	-0.096** (0.038)	-0.127** (0.053)
LISTED	-0.036* (0.019)	-0.045 (0.037)	0.058* (0.034)	0.112*** (0.042)
IND_REL	-0.036* (0.020)	-0.053** (0.026)	0.01 (0.014)	-0.045 (0.031)
CASH	-0.01 (0.017)	-0.044* (0.026)	0.008 (0.013)	0.009 (0.034)
STATE_RUS			-0.093* (0.055)	-0.155*** (0.039)
SECTOR_1	0.001 (0.022)	0.053 (0.041)		
SECTOR_2			-0.055 (0.055)	-0.081 (0.068)
SECTOR_3	0.047 (0.029)	0.034 (0.066)	0.014 (0.019)	0.064* (0.036)
SECTOR_4	0.065 (0.047)	0.098 (0.059)	-0.085 (0.069)	-0.187 (0.120)
SECTOR_5	0.025 (0.031)	0.04 (0.032)	-0.053** (0.025)	0.06 (0.076)
SECTOR_6	0.027 (0.027)	0.003 (0.047)	0.016 (0.051)	-0.002 (0.035)
SECTOR_7	-0.008 (0.020)	0.099** (0.045)	-0.02 (0.039)	-0.023 (0.033)
SECTOR_8	-0.014 (0.022)	0.04 (0.033)	0.012 (0.030)	0.091 (0.060)
Constant	0.04 (0.043)	-0.056 (0.072)	0.187 (0.122)	0.306*** (0.071)
Observations	77	77	117	117
R ²	0.429	0.305	0.313	0.303
Adjusted R ²	0.289	0.134	0.203	0.192
F Statistic	2.4474*** (df = 15; 61)	2.0885** (df = 15; 61)	9.3061*** (df = 16; 100)	2.8271*** (df = 16; 100)

Note: *p<0.1; **p<0.05; ***p<0.01; results of the OLS regression; robust standard errors are given in parenthesis.

Appendix Table 9: OLS regression results of the Specification 1 (Basic model)

Source: author's computations.

<i>Dependent variable</i> <i>Model #</i>	POL		RUS	
	CAR(-3;+1) (5)	CAR(-8;+8) (6)	CAR(-3;+1) (7)	CAR(-8;+8) (8)
CHEMICALS_TAR	0.023 (0.035)	0.052 (0.065)		
OIL_TAR			0.003 (0.026)	0.081** (0.036)
REL_SIZE	0.071*** (0.024)	0.041 (0.032)	0.024 (0.021)	0.043 (0.028)
LEVERAGE	-0.190** (0.077)	-0.101 (0.096)	-0.186 (0.139)	-0.312*** (0.095)
ROA	0.064 (0.067)	0.279** (0.111)	-0.102 (0.123)	-0.24 (0.166)
GROWTH_RATE	-0.013 (0.013)	0.005 (0.022)	-0.061* (0.035)	-0.146** (0.056)
CONTROL	0.022 (0.035)	0.09 (0.057)	-0.096** (0.042)	-0.110** (0.054)
LISTED	-0.032* (0.019)	-0.038 (0.038)	0.057 (0.039)	0.091** (0.039)
IND_REL	-0.039* (0.021)	-0.060** (0.025)	0.01 (0.015)	-0.049 (0.031)
CASH	-0.011 (0.017)	-0.047* (0.027)	0.008 (0.013)	0.008 (0.034)
STATE_RUS			-0.093* (0.055)	-0.154*** (0.041)
SECTOR_1	-0.009 (0.029)	0.03 (0.052)		
SECTOR_2			-0.055 (0.054)	-0.087 (0.069)
SECTOR_3	0.043 (0.030)	0.026 (0.070)	0.012 (0.019)	0.022 (0.040)
SECTOR_4	0.067 (0.048)	0.102* (0.060)	-0.085 (0.070)	-0.185 (0.121)
SECTOR_5	0.026 (0.031)	0.042 (0.033)	-0.053** (0.025)	0.067 (0.084)
SECTOR_6	0.027 (0.027)	0.003 (0.047)	0.016 (0.052)	-0.0003 (0.035)
SECTOR_7	-0.009 (0.020)	0.096** (0.045)	-0.02 (0.039)	-0.025 (0.033)
SECTOR_8	-0.016 (0.022)	0.037 (0.035)	0.012 (0.030)	0.092 (0.059)
Constant	0.04 (0.042)	-0.055 (0.067)	0.186 (0.125)	0.295*** (0.075)
Observations	77	77	117	117
R ²	0.434	0.317	0.313	0.321
Adjusted R ²	0.283	0.135	0.195	0.204
F Statistic	2.4634*** (df = 16; 60)	1.9904*** (df = 16; 60)	9.1857*** (df = 17; 99)	1.9904*** (df = 17; 99)

Note: *p<0.1; **p<0.05; ***p<0.01; results of the OLS regression; robust standard errors are given in parenthesis.

Appendix Table 10: OLS regression results of the Specification 1 (Key industry dummy)

Source: author's computations.

<i>Acquirers nation</i> <i>Dependent variable</i> <i>Model #</i>	POL		RUS	
	CAR(-3;+1) (9)	CAR(-8;+8) (10)	CAR(-3;+1) (11)	CAR(-8;+8) (12)
DEVELOPED	-0.016 (0.020)	-0.012 (0.031)	-0.008 (0.021)	0.021 (0.039)
REL_SIZE	0.076*** (0.025)	0.047 (0.033)	0.024 (0.021)	0.037 (0.028)
LEVERAGE	-0.188** (0.078)	-0.093 (0.105)	-0.187 (0.139)	-0.309*** (0.093)
ROA	0.076 (0.065)	0.303*** (0.107)	-0.097 (0.126)	-0.215 (0.170)
GROWTH_RATE	-0.014 (0.013)	0.005 (0.024)	-0.060* (0.032)	-0.160*** (0.058)
CONTROL	0.017 (0.034)	0.079 (0.057)	-0.096** (0.038)	-0.128** (0.054)
LISTED	-0.037* (0.019)	-0.045 (0.037)	0.058* (0.034)	0.111*** (0.042)
IND_REL	-0.034 (0.021)	-0.051* (0.026)	0.011 (0.015)	-0.047 (0.032)
CASH	-0.009 (0.017)	-0.044 (0.026)	0.009 (0.013)	0.008 (0.035)
STATE_RUS			-0.093* (0.054)	-0.157*** (0.040)
SECTOR_1	0.003 (0.021)	0.054 (0.041)		
SECTOR_2			-0.055 (0.056)	-0.08 (0.069)
SECTOR_3	0.051 (0.033)	0.037 (0.070)	0.012 (0.021)	0.069* (0.037)
SECTOR_4	0.071 (0.047)	0.102* (0.059)	-0.084 (0.066)	-0.189 (0.128)
SECTOR_5	0.026 (0.031)	0.041 (0.033)	-0.056** (0.026)	0.068 (0.078)
SECTOR_6	0.032 (0.028)	0.006 (0.049)	0.013 (0.054)	0.003 (0.037)
SECTOR_7	-0.011 (0.022)	0.096** (0.046)	-0.021 (0.041)	-0.018 (0.035)
SECTOR_8	-0.017 (0.023)	0.038 (0.033)	0.01 (0.032)	0.097 (0.060)
Constant	0.039 (0.043)	-0.057 (0.072)	0.187 (0.122)	0.306*** (0.072)
Observations	77	77	117	117
R ²	0.436	0.306	0.314	0.305
Adjusted R ²	0.285	0.121	0.196	0.185
F Statistic	2.2756** (df = 16; 60)	1.988** (df = 16; 60)	8.5954*** (df = 17; 99)	2.7077*** (df = 17; 99)

Note: *p<0.1; **p<0.05; ***p<0.01; results of the OLS regression; robust standard errors are given in parenthesis.

Appendix Table 11: OLS regression results of the Specification 1 (Developed dummy)

Source: author's computations.

Appendix 7. Results with Crisis and Rumor Controls

<i>Acquirers nation</i> <i>Dependent variable</i> <i>Model #</i>	POL		RUS	
	CAR(-3;+1) (1*)	CAR(-8;+8) (2*)	CAR(-3;+1) (3*)	CAR(-8;+8) (4*)
REL_SIZE	0.076*** (0.023)	0.044 (0.034)	0.017 (0.026)	0.034 (0.031)
LEVERAGE	-0.183** (0.078)	-0.092 (0.104)	-0.191 (0.128)	-0.298*** (0.094)
ROA	0.074 (0.069)	0.303*** (0.110)	-0.091 (0.118)	-0.219 (0.164)
GROWTH_RATE	-0.006 (0.013)	0.004 (0.024)	-0.064* (0.032)	-0.156*** (0.055)
CONTROL	0.009 (0.037)	0.079 (0.057)	-0.101** (0.041)	-0.137** (0.054)
LISTED	-0.037* (0.019)	-0.044 (0.038)	0.044* (0.023)	0.091** (0.039)
IND_REL	-0.03 (0.021)	-0.054* (0.027)	0.012 (0.015)	-0.039 (0.027)
CASH	-0.006 (0.018)	-0.045 (0.027)	0.005 (0.013)	0.006 (0.034)
STATE_RUS			-0.086* (0.044)	-0.138*** (0.043)
RUMOR	0.023 (0.027)	-0.002 (0.060)	0.044 (0.035)	0.044 (0.028)
CRISIS	-0.044 (0.045)	0.008 (0.069)	0.021 (0.038)	0.06 (0.064)
SECTOR_1	-0.006 (0.024)	0.053 (0.043)		
SECTOR_2			-0.054 (0.053)	-0.073 (0.075)
SECTOR_3	0.046 (0.028)	0.034 (0.068)	0.002 (0.024)	0.053 (0.037)
SECTOR_4	0.06 (0.046)	0.099 (0.060)	-0.088 (0.064)	-0.193* (0.099)
SECTOR_5	0.024 (0.031)	0.04 (0.033)	-0.039 (0.031)	0.071 (0.080)
SECTOR_6	0.032 (0.029)	0.002 (0.046)	0.019 (0.045)	0.011 (0.039)
SECTOR_7	-0.003 (0.026)	0.097* (0.049)	-0.02 (0.036)	-0.022 (0.033)
SECTOR_8	-0.023 (0.028)	0.041 (0.040)	0.007 (0.031)	0.083 (0.056)
Constant	0.038 (0.043)	-0.056 (0.073)	0.184* (0.109)	0.291*** (0.072)
Observations	77	77	117	117
R ²	0.446	0.305	0.344	0.322
Adjusted R ²	0.287	0.104	0.224	0.198
F Statistic	2.4666*** (df = 17; 59)	1.8775** (df = 17; 59)	5.8207*** (df = 18; 98)	3.2342*** (df = 18; 98)

Note: *p<0.1; **p<0.05; ***p<0.01; results of the OLS regression; robust standard errors are given in parenthesis.

Appendix Table 12: OLS regression results of the Specification 1 (Basic model)

Source: author's computations.

<i>Acquirers nation</i> <i>Dependent variable</i> <i>Model #</i>	POL		RUS	
	CAR(-3;+1) (5*)	CAR(-8;+8) (6*)	CAR(-3;+1) (7*)	CAR(-8;+8) (8*)
CHEMICALS_TAR	0.021 (0.034)	0.052 (0.066)		
OIL_TAR			0.004 (0.026)	0.077** (0.032)
REL_SIZE	0.074*** (0.023)	0.04 (0.034)	0.018 (0.026)	0.038 (0.030)
LEVERAGE	-0.187** (0.078)	-0.102 (0.097)	-0.191 (0.127)	-0.305*** (0.095)
ROA	0.064 (0.070)	0.279** (0.112)	-0.093 (0.115)	-0.244 (0.165)
GROWTH_RATE	-0.007 (0.013)	0.003 (0.023)	-0.063* (0.034)	-0.147*** (0.055)
CONTROL	0.014 (0.037)	0.091 (0.057)	-0.100** (0.045)	-0.120** (0.052)
LISTED	-0.034* (0.019)	-0.037 (0.040)	0.042 (0.027)	0.072** (0.036)
IND_REL	-0.033 (0.022)	-0.061** (0.025)	0.011 (0.015)	-0.044 (0.026)
CASH	-0.007 (0.018)	-0.048* (0.028)	0.005 (0.013)	0.004 (0.034)
STATE_RUS			-0.086* (0.045)	-0.139*** (0.044)
RUMOR	0.023 (0.025)	-0.001 (0.054)	0.045 (0.034)	0.049* (0.027)
CRISIS	-0.042 (0.045)	0.013 (0.069)	0.02 (0.041)	0.049 (0.062)
SECTOR_1	-0.015 (0.032)	0.03 (0.057)		
SECTOR_2			-0.055 (0.052)	-0.081 (0.075)
SECTOR_3	0.043 (0.029)	0.026 (0.072)	-0.00004 (0.021)	0.012 (0.040)
SECTOR_4	0.062 (0.047)	0.103* (0.061)	-0.088 (0.065)	-0.191* (0.104)
SECTOR_5	0.025 (0.032)	0.042 (0.033)	-0.038 (0.030)	0.081 (0.088)
SECTOR_6	0.031 (0.029)	0.0003 (0.045)	0.019 (0.045)	0.01 (0.039)
SECTOR_7	-0.004 (0.026)	0.094* (0.048)	-0.02 (0.036)	-0.025 (0.033)
SECTOR_8	-0.024 (0.028)	0.037 (0.042)	0.007 (0.031)	0.084 (0.056)
Constant	0.039 (0.042)	-0.055 (0.069)	0.184 (0.111)	0.285*** (0.073)
Observations	77	77	117	117
R ²	0.45	0.317	0.344	0.338
Adjusted R ²	0.28	0.105	0.216	0.208
F Statistic	2.3776** (df = 18; 58)	1.8103** (df = 18; 58)	5.9442*** (df = 19; 97)	3.0327*** (df = 19; 97)

Note: *p<0.1; **p<0.05; ***p<0.01; results of the OLS regression; robust standard errors are given in parenthesis.

Appendix Table 13: OLS regression results of the Specification 2 (Key industry dummy)

Source: author's computations.

<i>Acquirers nation</i> <i>Dependent variable</i> <i>Model #</i>	POL		RUS	
	CAR(-3;+1) (9*)	CAR(-8;+8) (10*)	CAR(-3;+1) (11*)	CAR(-8;+8) (12*)
DEVELOPED	-0.016 (0.020)	-0.012 (0.032)	-0.01 (0.023)	0.015 (0.040)
REL_SIZE	0.079*** (0.024)	0.047 (0.034)	0.017 (0.026)	0.034 (0.030)
LEVERAGE	-0.185** (0.079)	-0.093 (0.107)	-0.191 (0.128)	-0.297*** (0.095)
ROA	0.074 (0.068)	0.303*** (0.110)	-0.087 (0.115)	-0.226 (0.170)
GROWTH_RATE	-0.007 (0.013)	0.004 (0.024)	-0.062* (0.031)	-0.158*** (0.058)
CONTROL	0.011 (0.037)	0.08 (0.058)	-0.101** (0.041)	-0.138** (0.055)
LISTED	-0.038** (0.019)	-0.045 (0.038)	0.044* (0.023)	0.091** (0.039)
IND_REL	-0.028 (0.022)	-0.052* (0.027)	0.013 (0.015)	-0.04 (0.028)
CASH	-0.005 (0.018)	-0.044 (0.027)	0.005 (0.013)	0.005 (0.035)
RUMOR	0.019 (0.028)	-0.005 (0.061)	0.045 (0.035)	0.043 (0.028)
STATE_RUS			-0.085* (0.044)	-0.139*** (0.044)
CRISIS	-0.045 (0.048)	0.007 (0.072)	0.022 (0.040)	0.059 (0.065)
SECTOR_1	-0.003 (0.023)	0.056 (0.043)		
SECTOR_2			-0.054 (0.053)	-0.073 (0.075)
SECTOR_3	0.051 (0.032)	0.037 (0.071)	-0.0002 (0.026)	0.057 (0.038)
SECTOR_4	0.066 (0.047)	0.103* (0.060)	-0.087 (0.061)	-0.195* (0.105)
SECTOR_5	0.025 (0.031)	0.041 (0.034)	-0.043 (0.031)	0.077 (0.083)
SECTOR_6	0.037 (0.030)	0.006 (0.049)	0.016 (0.047)	0.015 (0.040)
SECTOR_7	-0.005 (0.028)	0.096* (0.049)	-0.023 (0.039)	-0.018 (0.034)
SECTOR_8	-0.024 (0.028)	0.04 (0.040)	0.004 (0.034)	0.087 (0.057)
Constant	0.037 (0.043)	-0.056 (0.074)	0.184* (0.109)	0.291*** (0.073)
Observations	77	77	117	117
R ²	0.452	0.307	0.345	0.323
Adjusted R ²	0.282	0.091	0.217	0.191
F Statistic	2.4818*** (df = 18; 58)	1.7997** (df = 18; 58)	5.1988*** (df = 19; 97)	3.0438*** (df = 19; 97)

Note: *p<0.1; **p<0.05; ***p<0.01; results of the OLS regression; robust standard errors are given in parenthesis.

Appendix Table 14: OLS regression results of the Specification 3 (Developed dummy)

Source: author's computations.

Appendix 8. AR and CAR trends

Acquirers from Poland (n=79)

Panel A. Daily AR

	Min	Median	Max	Mean	St. Dev.
AR(-8)	-0.046	-0.003**	0.112	-0.002	0.024
AR(-7)	-0.052	-0.001	0.074	0.003	0.022
AR(-6)	-0.082	0.004*	0.093	0.004	0.026
AR(-5)	-0.071	-0.003	0.092	-0.002	0.021
AR(-4)	-0.085	-0.004*	0.051	-0.004*	0.021
AR(-3)	-0.12	0.001	0.066	0.001	0.024
AR(-2)	-0.074	-0.001	0.13	0.001	0.029
AR(-1)	-0.102	0.002*	0.076	0.004	0.025
AR(0)	-0.08	0.006**	0.224	0.008*	0.037
AR(1)	-0.078	0.001	0.284	0.008*	0.044
AR(2)	-0.083	-0.002	0.066	-0.001	0.025
AR(3)	-0.115	-0.004	0.041	-0.006*	0.028
AR(4)	-0.051	-0.004**	0.055	-0.004*	0.02
AR(5)	-0.063	0.0001	0.074	0.001	0.021
AR(6)	-0.054	0.0002	0.045	-0.002	0.018
AR(7)	-0.095	-0.004	0.043	-0.005*	0.024
AR(8)	-0.077	-0.002	0.05	-0.003	0.019

Panel B. Daily CAR (as running total)

	Min	Median	Max	Mean	St. Dev.
CAR(-8)	-0.046	-0.003**	0.112	-0.002	0.024
CAR(-7)	-0.056	-0.002	0.1	0.001	0.028
CAR(-6)	-0.076	0.001	0.147	0.006	0.037
CAR(-5)	-0.089	-0.005	0.139	0.003	0.039
CAR(-4)	-0.084	-0.008	0.144	-0.001	0.043
CAR(-3)	-0.149	-0.003	0.142	0.00003	0.05
CAR(-2)	-0.161	0.0004	0.173	0.001	0.055
CAR(-1)	-0.129	0.002	0.194	0.005	0.064
CAR(0)	-0.117	0.008	0.268	0.013	0.072
CAR(1)	-0.167	0.008	0.356	0.021**	0.094
CAR(2)	-0.187	0.011	0.343	0.02*	0.096
CAR(3)	-0.203	0.005	0.299	0.014	0.094
CAR(4)	-0.247	-0.005	0.292	0.01	0.098
CAR(5)	-0.241	0.0003	0.343	0.011	0.104
CAR(6)	-0.23	0.003	0.362	0.009	0.108
CAR(7)	-0.209	-0.002	0.349	0.004	0.106
CAR(8)	-0.213	-0.005	0.332	0.001	0.107

Note: *p<0.1; **p<0.05; ***p<0.01; t-test was used to calculate the statistical significance of the mean AR(CAR), and Wilcoxon rank sum test was used for the median AR (CAR)

Appendix Table 15: Descriptive statistics of AR and CAR during the event window, acquirers from Poland

Source: author's computations.

Acquirers from Russia (n=124)*Panel A. Daily AR*

	Min	Median	Max	Mean	St. Dev.
AR(-8)	-0.057	-0.001	0.117	0.001	0.023
AR(-7)	-0.162	-0.001	0.321	0.001	0.038
AR(-6)	-0.145	-0.002**	0.132	-0.006**	0.027
AR(-5)	-0.07	-0.001	0.089	-0.001	0.023
AR(-4)	-0.072	-0.002	0.467	0.001	0.047
AR(-3)	-0.122	-0.0004	0.107	-0.002	0.027
AR(-2)	-0.145	-0.003	0.076	-0.004*	0.025
AR(-1)	-0.054	-0.003*	0.094	-0.002	0.021
AR(0)	-0.084	0.001	0.485	0.009*	0.053
AR(1)	-0.267	-0.003**	0.128	-0.007**	0.037
AR(2)	-0.123	-0.002	0.074	-0.005**	0.026
AR(3)	-0.23	-0.003	0.091	-0.005*	0.034
AR(4)	-0.064	0.001	0.107	0.002	0.024
AR(5)	-0.07	-0.004**	0.174	-0.001	0.029
AR(6)	-0.16	-0.005***	0.05	-0.007**	0.027
AR(7)	-0.812	-0.001	0.096	-0.007	0.076
AR(8)	-0.073	0.0001	0.396	0.005	0.046

Panel B. Daily CAR (as running total)

	Min	Median	Max	Mean	St. Dev.
CAR(-8)	-0.057	-0.001	0.117	0.001	0.023
CAR(-7)	-0.18	-0.002	0.438	0.002	0.052
CAR(-6)	-0.241	-0.006*	0.293	-0.004*	0.051
CAR(-5)	-0.207	-0.007**	0.288	-0.006*	0.056
CAR(-4)	-0.261	-0.005	0.43	-0.004	0.076
CAR(-3)	-0.305	-0.003	0.365	-0.006	0.081
CAR(-2)	-0.378	-0.005	0.412	-0.01	0.094
CAR(-1)	-0.412	-0.009	0.416	-0.012	0.099
CAR(0)	-0.46	-0.006	0.545	-0.003	0.122
CAR(1)	-0.512	-0.013*	0.543	-0.011	0.129
CAR(2)	-0.529	-0.013*	0.566	-0.016	0.13
CAR(3)	-0.651	-0.015*	0.657	-0.021*	0.141
CAR(4)	-0.679	-0.009	0.631	-0.019	0.142
CAR(5)	-0.712	-0.011	0.6	-0.02	0.148
CAR(6)	-0.727	-0.01**	0.524	-0.027**	0.143
CAR(7)	-0.862	-0.01**	0.522	-0.034**	0.167
CAR(8)	-0.869	-0.011**	0.449	-0.029**	0.166

Note: *p<0.1; **p<0.05; ***p<0.01; t-test was used to calculate the statistical significance of the mean AR(CAR), and Wilcoxon rank sum test was used for the median AR (CAR)

Appendix Table 16: Descriptive statistics of AR and CAR during the event window, acquirers from Poland

Source: author's computations.