

**UNIVERSITY OF VAASA**  
**SCHOOL OF ACCOUNTING AND FINANCE**

Juha Klemola

**THE IMPACT OF OWNERSHIP STRUCTURE ON POST ACQUISITION  
PERFORMANCE**

Evidence from the Russian banking sector

Master's thesis in  
Accounting and Finance

Master's Degree Programme in Finance

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**UNIVERSITY OF VAASA****School of Accounting and Finance****Author:**

Juha Klemola

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**Name of the Supervisor:**

Denis Davydov

**Degree:**

Master of Science in Economics and Business Administration

**Department:**

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**ABSTRACT**

The purpose of this thesis is to investigate the profitability of Russian banking M&A and the relationship between ownership structure and post acquisition performance. Previous studies on profitability of banking M&A have focused mostly on U.S. and Western Europe. This thesis contributes to previous research by focusing on relative under-researched Russian banking sector.

The sample of this study includes 20 M&A announcements from Russian banks between the years 2005 and 2013. Event study methodology is used to investigate the market reactions following M&A announcements. Abnormal returns are calculated for 21-day long event window, starting 10 days prior the acquisition announcement and ending 10 days after the announcement. After the abnormal returns have been calculated, OLS regressions are used to investigate the factors explaining M&A success. 3-day cumulative abnormal return of the bidding bank is the dependent variable in all regressions. In addition, regression models include different ownership structure variables and a set of control variables.

Results suggest that abnormal returns for bidding banks around M&A announcements are moderately positive but statistically insignificant. Owning a stake of the target prior acquisition has a positive impact on post acquisition performance. Additionally, private ownership and geographic scope of the deal have a positive impact on post acquisition performance. The impact of ownership concentration and state ownership on post acquisition performance are found to be statistically insignificant. Finally, bank specific variables explain part of the variation in cumulative abnormal returns.

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**KEYWORDS:** Mergers and acquisitions, Abnormal return, Ownership structure, Event study, Banking



## 1. INTRODUCTION

During the past few years the mergers and acquisitions (M&A) industry has been booming. Deal volumes and aggregate value of disclosed deals have reached new records quarter by quarter. In 2015 total value of M&A reached to 4,7 trillion dollars, topping the previous record of the year 2007. Following the record year of 2015 total value of global M&A remained high at 3,9 trillion dollars in 2016. Some of the key factors that have driven M&A in recent years are improving economy, low interest rates and cash-heavy balance sheets. Analysts believe that M&A activity will remain high, as companies continue to seek synergies and growth opportunities through mergers and acquisitions. (KPMG 2016.)

Several companies mention M&A as their main tool for growth and success. Economic theory provides different explanations on the question what drives M&A. Common reasons to conduct M&A are related to efficiency improving aims. M&A is done to create economics of scope, synergies and greater efficiency to asset management. Other explanations consist of attempts to gain more market power by acquiring competitors, and market discipline in the case of removing the incapable management of the target company. However, evidence also exists that mergers and acquisitions may be consequence of harmful empire building by managers. So it seems that merger and acquisitions may also be carried out from personal reasons, and not only by the aims to maximize shareholders wealth. (Andrade, Mitchell & Stafford 2001.)

This study investigates the profitability banking M&A in Russia and the relationship between ownership structure and post acquisition performance of acquiring firms. Research is aimed at Russian banking sector where ownership concentration is really common. In addition, Russian government is holding a majority stake in five of the largest banks in Russia. Besides to unique ownership structures and governments active role in financial markets, recent financial crisis in Russia has increased consolidation pressure in the Russian banking sector. Increasing interest rates and sanctions laid from the conflict with Ukraine have hurt Russian banks. The crisis have wounded especially weaker lenders and made them as potential targets for large and mid-sized banks. In addition to recent crisis in banking sector, Central Bank of Russia has recently implemented stricter financial standards and increased minimum capital requirements. Reforms have wounded especially smaller weakly government banks and led to situation, where number of operating banks is shrinking at a rapid pace. These recent developments in Russian banking sector make this research topical. Moreover, the

unique ownership structure of the Russian banks create interesting setting to study the impact of ownership concentration on post acquisition performance.

Numerous studies have analyzed the profitability and factors that drive M&A success or failure. Most of these studies focus on measuring daily returns around the announcement date. Majority of the previous studies conclude that abnormal returns around announcement date are zero or negative for acquirers and positive for targets (Spyrou & Siougle 2010; Campa & Hernando 2006). However, some studies find contradictory results indicating that both targets and acquirers earn positive and statistically significant abnormal returns (Cybo-Ottone & Muriga 2000). Previous studies on the profitability of banking M&A focus mostly on U.S. and Western Europe. Since majority of previous studies have focused on U.S. and Western Europe markets, M&A research in emerging markets is still limited. Russian banking sector has developed quickly after the banking crisis of 1998. Additionally, the differences in legal and institutional frameworks and relative low level of corporate governance in comparison to Western developed nations create interesting settings for this study. To my knowledge this is the first study that investigate the relationship between ownership structure and post-acquisition performance in Russian banking sector.

Even though previous literature on the factors driving M&A success is extensive, only a few of the previous studies analyze the relationship between ownership structure and post-acquisition performance. Yen & André (2007) study the relationship between ownership structure and long-term operating performance of acquiring firms. Yen & André (2007) argue that acquisitions may raise agency problems when different shareholder groups have divergent opinions on company's strategy. These problems may increase agency costs and lead to worse post acquisition performance. On the contrary, ownership concentration should lead to decreasing agency costs and therefore better post-acquisition performance. Yen & André (2007) study the relationship between ownership concentration and post-acquisition performance taking a long-term perspective by focusing on changes in operating cash flow returns after the acquisitions. Findings of the study suggest that the relationship between ownership concentration and changes in operating cash flows after acquisition is non-linear. Value increasing deals are associated with higher ownership concentration persistent with decreasing agency costs as the majority shareholders money invested in the acquiring firm increases. Researchers also find that separation of ownership and voting-rights is associated with greater value destruction, and that greater investor protection has a positive impact on abnormal returns.

Ben-Amar & André (2006) study the relationship between ownership structure and acquiring firm abnormal returns using a sample of 327 Canadian acquisitions. Family owners control large proportion of the Canadian public companies by the use of majority voting rights, while at the same time they are holding only small fraction of cash flow rights. This control is gained by the use of dual-class shares and stock pyramids. This kind of ownership structures are proposed to lead higher agency costs than those appointed by more dispersed voting rights. However, Ben-Amar & André (2006) did not find any evidence that the separation of ownership from control would lead to value destruction. They also find that acquiring firm announcement period abnormal returns are positive on average, and that these returns are higher for family owned firms. In light of these findings it is interesting to study the relationship between ownership concentration and post-acquisition performance in the Russian banking sector where ownership concentration is rather common.

This thesis contributes to previous literature by studying post-acquisition performance in relative under-research Russian banking sector. This research is topical due to recent developments in the Russian banking sector. Russian economy has transformed from centrally planned to capitalism after the fall of the Soviet Union. Nevertheless, state influence is still strong in the Russian banking sector and ownership concentration is at high levels. These features create unique settings for this study. Findings of this study should provide insightful evidence on the relationship between ownership structure and post-acquisition performance in the Russian banking sector. Findings of this study should also yield useful implications for the other emerging markets having similar ownership structures than those in Russia.

### **1.1. Purpose of the study**

The purpose of this study is to investigate profitability of Russian banking M&A and to analyze the relationship between ownership structure and post acquisition performance. More precisely, this thesis investigates whether ownership concentration lead to better post acquisition performance, does holding a stake of the target prior the acquisition increase post acquisition performance and what is the impact of state ownership on post acquisition performance.

Research is aimed at Russian banking sector, where ownership concentration and state participation to financial markets is very common. These features make Russian market ideal field for this study. Although global M&A activity has been at record levels in recent years, Russian M&A market has been struggling. Aggregate value of disclosed deals in 2015 was the lowest in more than a decade. Decrease in M&A activity was driven by the economic downturn, falling oil price and constrained access to finance. However, at the same time these features create pressure for future consolidation in Russian banking sector. Because of these recent developments it is relevant to study short-term profitability and value drivers behind past M&A deals in Russian banking sector.

## **1.2. Structure of the thesis**

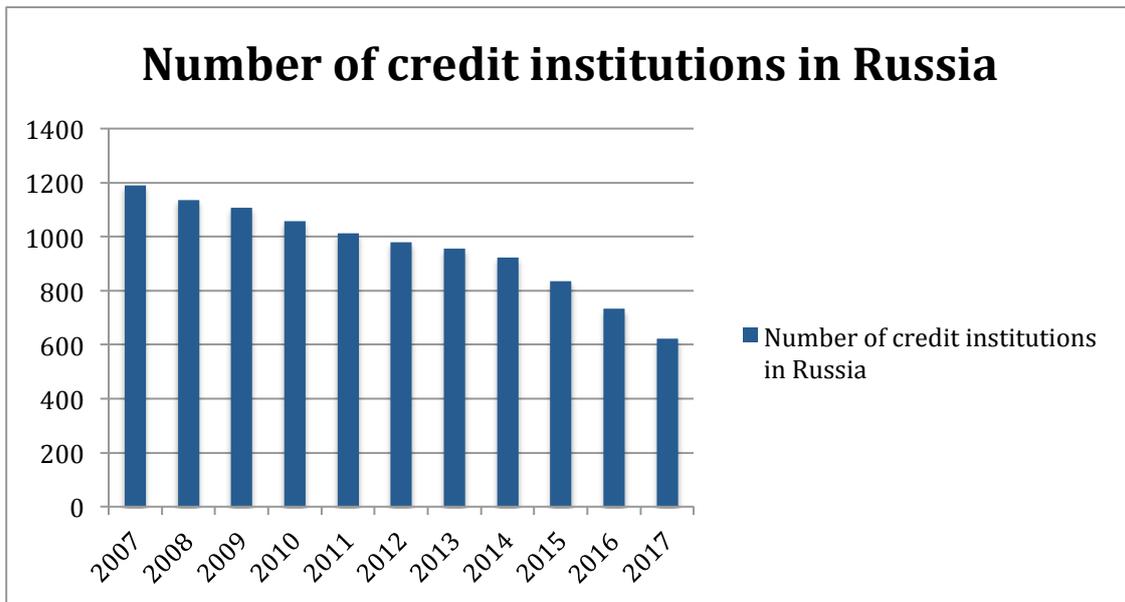
This thesis is structured as follows: Chapter one introduces the research topic and its relevance. The second chapter provides an overlook on the Russian banking sector. The third chapter reviews relevant previous research on the profitability of mergers and acquisitions. Fourth chapter discusses relevant theories related to mergers and acquisitions. Following that research hypotheses, data and methodology used in this study are introduced in the chapter five. Sixth chapter presents the empirical findings of the study. Finally chapter seven concludes and introduces possible ideas for further research.

## **2. INSTITUTIONAL SETTINGS OF THE RUSSIAN BANKING SECTOR**

Russian financial system started to develop after the collapse of Soviet Union. Privatization and legal liberalization were the main forces transforming Russian economy from centrally planned to market economy. This development was hit by the 1998 Ruble crisis, which led to devaluating of the ruble and governments default on domestic debt. Although the crisis led to increasing inflation, interest rates and closed down large number of Russian banks, it had also positive impact to the development of Russian financial markets. Several institutional reforms were put in place aftermath the crisis, which led to fast development of the Russian banking sector and capital markets.

The number of commercial banks has been traditionally relatively high in Russia. In 2000 there were more than 1300 commercial banks in Russia, large part of these banks were miniscule and had little or no exposure to interbank markets. Since 2000 the number of operating banks in Russia has decreased with an increasing pace. This trend has been driven by actions of Central bank of Russia (CBR). In order to create better infrastructure into financial markets, CBR has implemented stricter financial standards and increased minimum capital requirements. These actions have decreased the number of operating banks in Russia significantly, from 923 at the start of year 2014 to only 623 at the end of year 2016. (Central Bank of Russia 2017)

Most of the vanished banks were small, but over the last few years also few of the banks among the largest hundred have lost their licenses. In addition to increasing minimum capital requirements and stricter regulation, the number of commercial banks in Russia has decreased through revocation of banking licenses. When Elvira Nabiullina took over the job as governor of the CBR in 2013 she had two main goals, one was to lower the inflation, and the second was to clean up the banking sector. Nabiullina have made progress in both of she's targets. Under the command of Nabiullina CBR has revoked several banking licenses from banks that could not comply with new sticker standards. Tightening regulation may also create M&A opportunities into Russian banking sector, as banks that cannot comply with new regulations could become potential targets for bigger and better governed banks. However, although reforms imposed by CBR has significantly increased the health of the Russian banking sector they have not yet translated into increasing M&A activity in banking sector. (Central Bank of Russia 2017; Solanko 2017)



**Figure 1.** Number of credit institutions in Russia.

Figure 1 above illustrates how the number of credit institutions in Russia has decreased during the last ten years. The pace has picked up in recent years, due to the increasing regulation and recent banking license revocations. Although the number of commercial banks has been traditionally relatively high in Russia, banking sector has always been highly concentrated and dominated by state-owned banks. Mamonov & Vernikov (2017) argue that Russia stands out as special case among transition countries in terms of the role and importance of public banks. While the importance of public banks in Central and Eastern Europe (CEE) have almost gone extinct, those banks are still dominating the Russian market. Public banks held still approximately 60% market share in Russia, while market share of foreign banks is only close to 10%.

Banking sector concentration is clearly seen when looking at total assets. According to CBR 2017 top five banks held more than 55% of the total assets in Russian banking industry, while top 20 account close to 80% as the end of the year 2017. All of the five largest banks in Russia are either fully or partially owned by government. Moreover, large state-owned corporations are among the largest depositors in Russian banking system. These facts illustrate that government's influence in Russian banking sector is still strong and coming through different channels. High concentration and governments major role in banking sector may not be ideal for banking sector competition and efficiency. Previous research on banking efficiency in transition countries illustrate that

state-owned banks are less efficient than foreign and privately owned banks (Bonin, Hasan & Wactel 2005; Fries, Neven, Seabright & Taci 2006). Fungáčová & Poghosyan (2011) analyze the determinants of interest rate margins in Russian banking sector between the years 1999 – 2007, and find that even though large state-owned banks are dominating the Russian banking sector the average net interest margins charged by state-controlled and privately held banks do not differ drastically. So it seems that state-controlled Russian banks are not fully exploiting their market power as they are setting the interest rates.

**Table 1.** General information on the Russian banking sector.

Table presents an overview on the main financial characteristics and recent developments of the Russian banking sector. Data is obtained from the reports of Central bank of Russia.

General information on the Russian banking sector	2013	2014	2015	2016	2017
Banking sector total assets, (billion rubles)	49509,6	57423,1	77653,0	82999,7	80063,3
Change, %		15,98%	35,23%	6,89%	-3,54%
Banking sector total capital, (billion rubles)	6112,9	7064,3	7928,4	9008,6	9387,1
Change, %		15,56%	12,23%	13,62%	4,20%
Banking sector total loans to non-financial organizations and individuals, (billion rubles)	27708,5	32456,3	40865,5	43985,2	40938,6
Change, %		17,13%	25,91%	7,63%	-6,93%

Table 1 reports an overview on recent developments of the Russian banking sector. As we can see from the table, Russian banking sector has experienced rapid growth during the last five years. Banking sector total asset has by increased by 61,71 % from 2013 to 2017. Similar growth can be observed when looking at the capital side, as banking sector total capital has increased by 53,56 % during the same time span. In addition, bank total lending to non-financial households and individuals has increased by 47,45%.

Even though Russian banking sector has grown fast during the last decade, the banking sector is still dominated by large state-owned banks. Market share of foreign banks is still relatively low when compared to other CEE economies. Increasing regulation and tightening minimum capital requirements create challenges for the Russian banks. At

the same time these recent developments of the Russian banking sector create interesting settings to study the relationship between ownership structures and post acquisition performance in Russian banking sector.

### **3. PREVIOUS LITERATURE**

M&A profitability is one of the most studied areas in finance research. Most of the previous studies measuring M&A performance focus on measuring short-term wealth effects of M&A using daily stock prices around the announcement date. Along with the profitability of M&A transactions the value drivers behind these transactions are broadly studied. First studies on M&A profitability were conducted in U.S. markets. Later on studies have been made in Western European markets and recently some studies on M&A profitability have been conducted in emerging markets. This section provides extensive review on previous literature concerning short-term profitability of M&A. First I will focus on studies covering M&A profitability and factors behind M&A success across different industries. Since the focus of this study is on post acquisition performance in banking sector, previous studies on banking M&A will be reviewed on a separate section.

#### **3.1. M&A profitability across different industries**

Limmack (1991) analyze shareholder wealth effects of M&As in UK using data from 1977 to 1986. Previous studies of wealth effects focus mostly on bid announcement date. This study makes an exception and analyzes returns around bid announcement and outcome date. Limmack (1991) suggest that this kind of methodology will capture the wealth effects of acquisitions more completely. Event study methodology is used and abnormal returns are calculated around two different event days: announcement day and the outcome day. Study utilizes three different models to calculate the wealth effects following M&A: market model, adjusted beta model and index-relative model. Findings of the study indicate that target company's shareholders gain significantly from the bids in pre-merger period, and bidder company's shareholders do not lose. When the analysis is extended to post-merger period, bidder company's shareholders suffer losses. Limmack (1991) study also the net-wealth effects of takeovers, and conclude that takeovers do not cause net-wealth effects as gains obtained by target company's shareholders are at the expense of bidder company's shareholders.

Andrade et al. (2001) argue that the most statistically reliable evidence on M&A value creation comes from a short-window event studies. Using an extensive sample of 3688 completed mergers between the years 1973 and 1997 researchers show how abnormal returns are distributed between bidders and targets. Abnormal returns are on average

1,8% for the bidders and targets combined. Returns are quite similar across decades ranging from 1,4% to 2,6% for the combined entity. Differences in returns between decades are not statistically significant. Looking at the acquirer and target returns separately, it is clear that the target firm shareholders are major winners in M&A transactions, earning statistically significant 16% average abnormal return over the sample period. Evidence on value creation for bidder firm shareholders is ambiguous as they earn -0,7% statistically insignificant average abnormal return over the sample period. Andrade et al. (2001) also show that all-equity financed bids lead to lower returns than all-cash financed bids and reports clustering of takeover activity by industry during the fourth and the fifth takeover wave. This clustering is driven by different shocks such as deregulation, changes in oil prices and financial innovation.

Goergen & Renneboog (2004) analyze short-term wealth effects of large intra-European takeover bids over the period of 1993–2000. Since most of the previous studies were performed in US market, Goergen & Renneboog (2004) suggest that European wide study would result in interesting results. After a careful sample selection final sample include 228 merger or acquisition announcements. Event study methodology is used to study short-term wealth effects of acquisitions. In order to capture possible effects of rumors and inside trading, event window starts six months before the bid announcement date. Researchers find 9% announcement effect for target firms. Positive announcement effects is found also for bidders, but with a way smaller magnitude of 0,7%. Goergen & Renneboog (2004) argue that the status of takeover bid has a huge impact on the abnormal returns. Hostile takeovers yield in 12,6% announcement effect for target firms compared to 8% announcement effect of mergers and friendly takeovers. The method of payment is find to have an impact on value creation, as all-cash offers results in substantially higher abnormal returns than all-equity or combined offers.

Kiyamaz & Baker (2008) examine short-term announcement effects of the largest domestic M&A deals in U.S. from 1989 to 2003 using standard event study methodology. Overall their results are similar than in previous studies suggesting that abnormal returns are negative and significant for bidders, but significantly positive for targets. However, not all the industries are same as abnormal returns varies from significantly positive to significantly negative across different industries. In addition to short-term wealth effects Kiyamaz & Baker (2008) investigate the determinants of short-term returns and the motives behind M&A transactions. Findings of the study suggest that synergy was the main motive for large U.S. M&A between the years 1989 and 2003. Some support is also found for managerial hubris hypothesis. When analyzing the

determinants of abnormal returns, authors find that financial slack and P/E of the bidder are negatively related to abnormal returns. On the contrary positive relation exist between industry PE, operating in a heavily regulated industry and the form of payment.

Arik & Kutan (2015) study the wealth effects of 1648 M&A announcements in 20 emerging markets from 1997 to 2013. Consistent with previous literature from developed markets, scholars find positive announcement effect for targets over different event windows. However, abnormal returns are smaller in developing markets when compared to returns on developed markets. Arik & Kutan (2015) also study the factors driving abnormal returns and conclude that cash financed deals results in significantly higher returns than deals financed with equity or deals financed with both cash and equity. Relative size of acquirer in respect to target has also positive impact on abnormal returns. In conflict with previous research, a negative relation was found from the target firm being in heavily regulated industry. Finally authors conclude that abnormal returns have been higher after the financial crisis. Most of the findings of Arik & Kutan (2015) are in line with the previous studies from the developed markets. Even so, some of the findings are opposite to previous literature suggesting that there is room for further research concerning wealth effects following acquisitions in emerging markets.

Numerous studies find that share price reactions for target firm shareholders are not only limited to announcement day but also start to build up prior the acquisition. Schwert (1996) find that share price reactions for target firms starts to build up 42 days prior the public announcement of the acquisition and accounts approximately 57% of the total premium paid by acquirer. This price run-up implies that the market is anticipating takeover bids. Price run-up is cost for the bidder and may be caused by rumors, information leakages or inside trading. Brigida & Madura (2012) investigate sources of stock price run-up prior acquisitions in U.S. between the years 1995 and 2007 arguing that anticipation of acquisition announcements drives informed trading, which in turn can lead to high run-up of target price before the announcement. Findings of the study suggest that target stock price run-up depends on several bidder and target characteristics, which lead to private information leakages. Price run-up is higher when the bidder is not a private equity firm, is friendly, is foreign, or borrows to finance its acquisition. Price run-up depends also on target characteristics and is higher when target is smaller, have listed stock options and operates in technology sector. Brigida & Madura (2012) finds also that price run-up has decreased significantly after the Sarbanes-Oxley Act was put in practice. This finding suggests that insider reporting

requirements and generally heightened regulatory environment has decreased price run-ups.

There are few previous studies investigating whether controlling shareholders create or destroy value in the context of acquisitions. Ben-Amar & André (2006) study the relationship between ownership structure and acquiring firm performance using a sample of 327 Canadian acquisitions. Family owners control large proportion of the Canadian public companies by the use of majority voting rights, while at the same time they are holding only small fraction of cash flow rights. This control is gained by the use of dual-class shares and stock pyramids. These kinds of ownership structures are proposed to lead higher agency costs than those appointed by more dispersed ownership structures. However, Ben-Amar & André (2006) did not find any evidence that separation of ownership and control would lead to value destruction. Authors also find that acquiring firm announcement period abnormal returns are positive on average and that these returns are higher for family owned firms.

Ownership concentration is more common in emerging markets than in developed markets. This concentration is often achieved by family or state-ownership and by the use stock pyramids, cross-shareholdings, and dual class shares (La Porta, Silanes, Shleifer & Vishny 1999). In light of these findings Bhaumik & Selarka (2013) investigate whether ownership concentration improve M&A outcomes in emerging markets. Authors argue that most M&A fail because of agency conflicts, and that ownership concentration should reduce agency conflicts leading to better post acquisition performance. Analysis is done in Indian market where ownership concentration is common among families and business groups. Using a firm level data from 1995 to 2004 scholars find that post acquisition performance of acquiring firm is positively correlated with the degree of ownership concentration among its directors. Findings of the study indicate also that ownership concentration among foreign promoters enchanted post acquisition performance from 2001 to 2004. Bhaumik & Selarka (2013) note that although ownership concentration may reduce agency conflicts between managers and owners, it may increase agency conflicts between majority and minority shareholders. Minority expropriation may occur especially in emerging markets where in general standards for corporate governance are lower than in developed markets.

Du & Boateng (2014) examine how state ownership and institutional factors affect value creation in M&A using a sample of 468 cross-border M&A announcements by

Chinese listed firms. They find bidder gains ranging from 0.47% to 1.52% over the 10-day event window. Findings indicate that state ownership has positive and significant impact on announcement period abnormal returns, suggesting that government has major impact on M&A value creation in China. Du & Boateng (2014) argue that state ownership signals that Chinese government is committed to developing these companies. Furthermore, Chinese firms with state ownership benefits from political ties with the government and preferential access to resources. On the contrary Bertrand & Betschinger (2012) argue that state lead acquisitions can lead to worse post acquisition performance due to lower internal efficiency and conflicts between political aims and profit objectives. Bertrand and Betschinger (2012) study the long-run operating performance of acquiring firms and find that state ownership has a negative impact on post-acquisition profitability. In light of these findings, it is interesting to study the relationship between state ownership and acquirer returns in Russia.

In addition to ownership structure corporate governance has an impact on stock prices and acquirer returns. Level of corporate governance varies around the world, and in general standards for corporate governance are higher in Western countries than in Eastern Europe and Asia. Gompers, Ishii & Metrick (2003) investigate the relation between corporate governance and equity prices. They construct “Governance Index” to measure the balance of power between managers and shareholders. Using this index authors build different portfolios to measure the effect of corporate governance on firm value and long-run stock performance. Authors find that antitakeover provisions (ATPs) have a negative impact on stock prices and long-run stock performance. Masulis, Wang & Xie (2007) further continued Gompers et al. (2003) work and studied the relationship between corporate governance and acquirer returns. Researchers find, that acquirers with more ATPs earn significantly lower announcement period abnormal returns. Masulis et al. (2007) results support the hypothesis that managers at firms applying more antitakeover provisions are less subject to the power of the market for corporate control, and therefore are more likely to commit shareholder value destructing empire-building acquisitions. Kim & Lu (2013) study how corporate governance reforms undertaken by 26 developed and emerging countries over the years 1991 and 2007 have affected on M&A decisions. Corporate governance reforms have an impact on investor protection, thus an increase or decrease in corporate governance has an effect on the gap of investor protection between bidder and target countries. Changes in this gap are found to have an effect acquirer’s tendency to pick better performing firms in countries that have lower level of corporate governance. Kim and Lu (2013) findings show the

importance of corporate governance reforms and imply that the level of investor protection has an effect to capital flows between developed and developing countries.

### **3.2. Profitability of banking M&A**

Literature investigating the effects and motives of banking M&A is extensive. Bank consolidation has been ongoing since 1980s, and is expected to continue further, as banks are re-structuring to respond in changing regulation, technological innovations and crisis that shake up our financial system. The number of operating banks has decreased significantly over the past two decades and typical bank is now larger, more diversified and operates in more markets than ever before. This consolidation wave has produced bulk of literature studying the wealth effects, motives and how does re-structuring affect on banks risk levels. Most of the studies measuring the wealth effects of banking M&A employ the traditional event-study methodology. This approach is typically two staged, at first the excess returns of these transactions are calculated, and following that excess returns are regressed to a set of control variables.

First studies on the profitability of banking M&A were conducted in U.S. during 1980s and 1990s. Findings of these studies are on line with previous studies measuring post acquisition performance across different industries, indicating that on average target firm shareholders earn positive abnormal returns, bidder firm shareholders earn zero or negative returns and abnormal returns for combined firm shareholders are statistically insignificant (Houston & Ryngaert 1994; Hudgins & Seifert 1996). Later on scholars have been focusing on post acquisition performance in Europe as well. Cybo-Ottone & Murgia (2000) study the short-term wealth effects of M&A in European banking industry. Using a sample of 54 European M&A from 1988 to 1997 they find positive and significant abnormal returns for both bidders and targets over short event windows. Authors also show that country effects do not drive results, suggesting that stock market valuation and institutional frameworks are relative homogeneous across Europe. Cybo-Ottone & Murgia (2000) argue also that difference in their findings compared to previous research from U.S. arise from differences in market structures and regulation regimes between these two markets.

Beitel, Schiereck & Wahrenburg (2004) examine 98 large European banking M&As from 1985 to 2000 to identify the factors driving abnormal returns. They analyze 13 different variables that have been found to cause excess returns in previous studies.

Using multivariate cross-sectional regressions and comparative statistics with mean difference tests, scholars find that many of these factors affect stock returns. Findings of the study suggest that the stock market reaction to M&A announcements can be at least partially estimated. Overall Beitel et al. (2004) find positive abnormal returns for targets and combined firm shareholders. More precisely, findings of the study indicate that bidding banks are more successful when they acquire smaller and faster growing targets that have relatively low efficiency measures, and when they engage in fewer M&A transactions.

Campa & Hernando (2006) study a European sample of 244 M&As from financial industry between the years 1998 and 2002. In addition to short-term wealth effects of these transactions, they focus on pre- and post merger profits and efficiency. Results from the event study are in line with the previous literature, as they find positive and significant short-term returns for target firm shareholders around the announcement day, while returns for bidding firm shareholders are slightly negative. Most of the excess returns is realized during a short window around the announcement. One year after the announcement average excess returns for both bidders and targets are statistically insignificant. Campa & Hernando (2006) find also that the efficiency of target banks measured by return on equity improves significantly after the M&A transactions, and that domestic transactions yield relatively better returns for acquirers than cross-border transactions. Another interesting study is the research by Ekkayokkya, Holmes & Paudyal (2009) who study whether the move towards, and eventual adoption, of euro have an impact on bidding banks shareholders announcement period abnormal returns. Researchers study abnormal returns from 1990 to 2004 and compare abnormal returns in three different sub-periods: pre-euro, run-up to the euro and post euro eras. Findings of the study show that bidder gains have decreased after the introduction of the euro. This implies that financial integration has increased competition for corporate control, which has decreased bidders gains from acquisitions. Results also show that diversifying deals are value enhancing during all three sub-periods, while focused deals have lead to statistically significant losses after the introduction of the euro. This suggests that the level of market integration is still sector dependent.

More recently Nnadi & Tanna (2013) analyze wealth effects of 62 European banking mega-mergers from 1997 to 2007. Mega-mergers are classified as deals valued over 1 billion dollars. Researchers focus on differences in announcement period abnormal returns between domestic and cross-border deals. Instead of using cumulative abnormal returns (CARs) as a measure of wealth creation, authors employ standardized

cumulative abnormal returns (SCARs) in their analysis. The purpose of standardizing is to make sure that every abnormal return has the same variance, and to ensure that results are not driven by single events. Findings of the study indicate that domestic transactions results in higher announcement period abnormal returns than cross-border acquisitions. This is consistent with previous research by (Cybo-Ottone & Murgia 2000; Beital et al, 2004; Campa & Hernando 2004). Yet, the abnormal returns for acquirers are significantly negative in cross-border deals, while abnormal returns in domestic deals are positive but statistically insignificant. Thus, the results of Nnadi & Tanna (2013) suggest that banking M&A do not create value for acquiring firm shareholders.

Banking consolidation has been very active in Europe during the last few decades. This consolidation has created chunk of literature presented above (Cybo-Ottone & Murgia 2000; Beital et al, 2004; Campa & Hernando 2004; Nnadi & Tanna 2013). However, the financial crisis between the years 2007 and 2009 creates interesting setting to study, if M&A returns are somehow different during the crisis. Beltratti & Paladino (2013) address this this issue by studying a sample of 131 completed and 8 terminated deals from the European financial industry in 2007 – 2010. Researchers argue that crisis may create opportunity for healthy banks to increase their market share and profitability, by acquiring weaker banks at distressed prices. This study makes an exception to previous studies, by studying abnormal returns in two different event windows. Returns are calculated around the announcement and completion date of the acquisition. This is motivated by the fact that during the crisis due diligence process carried out by the acquirers may reveal valuable information on target banks assets. Therefore, the completion of due diligence process removes uncertainty and should reveal value relevant information. Findings of Beltratti & Paladino (2013 suggest that abnormal returns for acquirers are zero on average after the announcements, but positive after the deal completion. Bank characteristics seem to explain abnormal returns, as returns are higher for more profitable and efficient banks and for banks with less leverage. In contrast to previous studies idiosyncratic volatility does not explaining post acquisition returns. The impact of method of is exact opposite during the crisis than in normal times, as cash payments result in lower abnormal returns than equity payments. Overall authors suggest that M&A is indeed different during crisis. Investors assign significant uncertainty for the competition of M&A transactions during crisis, and reward successful deals with delayed abnormal returns.

Recent research by Kyriazopoulos & Drymbetas (2015) study whether domestic M&A still create value. Although cross-border acquisitions became increasingly popular in

mid 90's, the ratio of domestic M&As to cross-boarder M&As has steadily been around five to one. Thus, researchers argue that studying a fresh sample of domestic transactions would result in useful findings. Using an extensive sample of 118 domestic M&As from 1996 to 2010 Kyriazopoulos & Drymbetas (2015) find that domestic acquisitions still create value for target bank shareholders. Consistent with previous literature abnormal returns around announcement date for bidding banks shareholder are close to zero and statistically insignificant. Authors focus explicitly on the profitability of both involved parties, and state that prior profitability explains short-term excess returns for both acquirers and targets. Findings of the study suggest also that, information leakages prior acquisitions are minimal and that excess returns vanish shortly after the acquisition.

Since abnormal returns have been slightly different in Europe and U.S., researchers have tried to identify the country specific factors that drive M&A returns. Hagedorff, Collins & Keasey (2008) compare shareholder wealth effects of large bank M&A between Europe and U.S. Authors argue that differences in announcement period excess returns between U.S. and Europe are mostly driven by the differences in investor protection between these two countries. This argument is confirmed by the findings of the study, which indicate that there is inverse relationship between the level of investor protection and bidding bank announcement period abnormal returns. Abnormal returns are higher when bidders acquire banks in relatively low investor protection regimes, which is mostly in Europe. Findings of the study indicate that markets assume that acquirers can create economic gains from targets in relatively low investor protection environment. On the contrary, in high investor protection environment where competition for corporate control is higher, it is difficult for bidders to realize any merger related gains. Hagedorff et al. (2008) justify their findings also by the fact, that bidding banks shareholders must be compensated for the increased risk of minority expropriation, which they face in low protection environment.

Although some previous European studies seem to find marginally positive abnormal returns for bidding bank shareholders, in general findings in European and U.S. studies do not differ drastically. Still, it seems that announcement period abnormal returns to bidding bank shareholders are slightly higher in Europe. Interestingly, wealth effects of bank M&As have been recently studied on emerging markets as well. Since research focus of this thesis is on emerging Russian markets, previous studies on M&A wealth effects from emerging markets are important for this thesis. Goddard, Molyneux & Zhou (2012) analyze 132 banking M&As in the emerging markets of Asia and Latin

America from 1998 to 2009. Study employs well-established event study methodology to measure the changes in shareholder wealth following acquisition announcements. After the abnormal returns are calculated, authors employ multivariate regression models in order to detect the determinants of shareholder value. Goddard et al. (2012) focus on both domestic and cross-border acquisition, and measures also the effect of government intervention to value creation. Results of the study report modest value creation following M&As in emerging markets. More precisely, target bank shareholders earn positive abnormal return, while bidding banks shareholders do not lose on average. Acquisitions initiated by governments results in higher abnormal returns for acquires than privately instigated acquisitions. Considering the deal specific characteristic, equity financed deals lead to higher abnormal returns than cash financed deals, and more experienced bidders seem to make better acquisitions. Acquiring banks shareholders benefit also from the acquisitions of targets that has been performing poorly prior the acquisition. Findings on the effect of government intervention to M&A returns are interesting for this thesis, since I am also measuring does government ownership have an effect on announcement period abnormal returns.

The European financial sector has experienced strong consolidation over the past two decades. Following this concentration in banking sector has increased greatly and banks have started to look in emerging markets for potential targets. This movement is motivated also by the removal of barriers for cross-border acquisitions, which has lead to opening of the new markets especially in CEE countries. From 1990 to 2005 M&A value in European banking industry was 794 billion USD. Around 4,1% of that was related to CEE countries. Cross-border M&A activity in CEE is expected to increase even further in the future. This movement has motivated scholars to study wealth effects of acquisitions that involve bidding bank from developed markets and target bank from emerging markets. (Fritsch, Gleisner & Holzhäuser 2007.)

Fritsch et al. (2007) were among the first to analyze value creation of M&As involving bidding bank from Western Europe or U.S. and target bank from CEE. Using a sample of 56 cross-border transactions from 1990 to 2005 scholars analyze abnormal returns following acquisition announcements. Findings of the study show that bidding banks do not earn abnormal returns following M&A announcements. However, authors find that acquiring targets from less developed countries lead to higher value creation. Hence, excess returns are mostly explained by country specific macroeconomic factors. Authors also find that factors explaining M&A success in developed markets, such as

profitability, efficiency or relative size of bidder to target does not explain M&A returns in CEE.

Although announcements effects of bank M&As have been widely studied in Western Europe and U.S., M&A wealth effects are still relatively under-researched in Eastern Europe. Kyriazopoulos (2016) state that, Eastern European banking industry posses many distinct features that are not present in Western European banking sector. These features include the transition from centrally planned economy to capitalism, the newly developed economic systems, the degree of competition for corporate control and different legal and institutional frameworks. Kyriazopoulos (2016) argue that, these features make Eastern European banking sector ideal place to study market reactions following acquisition announcements. Author aims to contribute to the previous literature by studying a market that has been recently opened and is still under structural changes. Study focuses explicitly on M&A transactions, where both acquirer and target are banks located in Eastern Europe. Final sample of the study consist of 69 M&A announcements from 1995 to 2015 and majority of these transactions are domestic. Results from the event study show that on average bidding banks do not earn statistically significant returns around acquisition dates, while abnormal returns for target banks are positive and statistically significant. These findings are on line with the previous literature from Western Europe. Kyriazopoulos (2016) also studied does method of payment have impact on value creation, and find that cash financed deals lead to higher abnormal returns than acquisitions financed with cash and stock. Finally similar than in study by Fritsch et al. (2007) standard factors explaining M&A success in developed markets has no explanatory power in Eastern Europe.

## **4. THEORY OF MERGERS & ACQUISITIONS AND OWNERSHIP STRUCTURE**

This chapter introduces relevant theories for this thesis. Although focus of this thesis is on short-term market reactions following M&A's, it is important to understand why do mergers tend to come in waves and what are the main reasons to conduct M&A. Since this thesis is measuring the effect of ownership structure on post acquisition performance, relevant theories concerning ownership structure and firm valuation will be covered as well. First I will present the determinants of mergers waves and show how the shareholder gains differ during and across merger waves. Second I will go through general theories on motives to conduct M&A. Lastly, this chapter describes main theories on ownership structure and firm valuation.

### **4.1. Merger waves**

It is an established fact that M&A tend to come in waves. Up to now, academic literature has identified and examined six takeover waves. Five of these waves occurred during the last century. The latest wave started in 2003 and came to an end in mid 2007, just before the global financial crisis. M&A waves are defined as periods of unusually high transaction value and activity. Clustering of takeover activity is typically high during the times of economic recovery and driven by external shocks, such as regulatory changes and technological developments. Takeover activity is usually cut down by steep decline in stock markets followed by recession. Although M&A waves exhibit similar common characteristics, each wave is rather different from previous. Previous literature uses different ways when grouping competing merger wave theories. I will follow the approach of Martynova & Renneboek (2008) who divide these theories into four groups: business environment shocks, corporate governance and agency problems, managerial hubris and market timing.

#### **4.1.1. Business environment shocks**

First group of merger wave theories believe that takeover clustering is driven by different external shocks that motivate companies to restructure their operations to meet the changes in business environment. Studies that examine takeover activity in industry level have been the most successful in explaining takeover clustering. An example of this is the study by Andrade et al. (2001) who provide evidence that during the fourth

and the fifth takeover waves merger activity strongly clusters by industry. Researchers also find that different shocks such as deregulation, oil price shocks and financial innovation explain substantial amount of takeover clustering in the 1980s. Results of Andrade & Stafford (2004) further support the theory of industry clustering, as they find strong evidence between industry shocks and within-industry takeovers. Furthermore Andrede & Stafford (2004) show that forces driving M&A have been different across the takeover waves. Industry-wide shocks were the leading drivers of M&A in the 1970s and 1980s, as they generated excess capacity and forced industries to rearrange their assets to respond in new market conditions. In the 1990s takeover activity was mostly determined by the factors allowing firms to grow and expand. Andrede & Stafford (2004) show that in the 1990s M&A was mostly motivated by industry expansion rather than restructuring. Maksimovic & Phillips (2001) study the intra-industry firm-level determinants of takeovers and find that during industry expansion less efficient targets are more likely to sell their assets to more efficient acquirers. This redistribution of assets is likely in industries that experience a surge in demand. These findings suggest that industry-wide shocks can explain large proportion of takeover clustering.

Technological development is another factor explaining takeover clustering. Jovanovic & Rousseau (2002) argue that technological change increases the gap in companies growth prospects measured by Tobin's Q. This dispersion in growth prospects leads to situation where high-Q firms are taking over low-Q firms in a wave like patterns. This finding is supported by the findings of Andrade et al. (2001) who report that in more than two-thirds of all mergers since 1973, acquirers Q was higher than targets Q. On the contrary, Rhodes-Kropf & Robinson (2008) finds that high-Q bidders do not usually acquire low-Q targets. Authors argue that in most acquisitions target and bidder have similar growth prospects. This finding is line with the synergy theory of mergers, indicating that M&A is done in order to improve efficiency and to eliminate overlapping operations.

#### 4.1.2. Agency problems and corporate governance

Previous literature concludes that large proportion of M&A leads to value destruction instead of value creation. In light of this finding scholars have started to wonder whether managerial self-dealing has an effect to M&A decisions. Schleifer & Vishny (1991) studied the determinants of M&A in the '60s and the 80's and suggest that personal objectives of corporate managers played crucial role in formation of the third

merger wave. Majority of the takeover transactions in 1960s were diversifying rather than focusing. Schleifer & Vishny (1991) argue that diversifying takeovers in the 1960s increased the agency problems between managers and shareholders, as managers used acquisitions to protect their own position. Similarly, Amihud & Lev (1981) argue that risk-averse managers use diversifying acquisitions to smooth the earnings volatility. This activity can protect managers' own position, but it can be in conflict with the shareholders interest and create an agency cost problem.

Jensen (1986) study the agency cost of free cash flow in the context of takeovers. He finds that agency problems are likely to spawn a takeover wave when favorable market conditions results in excess cash flows in the hands of managers. Instead of distributing these excess funds for the shareholders, self-interest managers may go for "empire building", which refers to attempts to increase scope and size of managers organizational power and influence. Jensen (1986) also argues that managers tend to make bad acquisitions when they have excess cash and don't know how to spend it. This hypothesis is supported by empirical literature, which finds that firms with excess cash flows make value-decreasing acquisitions. For example Hartford (1999) show that cash-rich bidders make acquisitions that destroys value and that negative abnormal return decreases in the amount of free cash flow held by bidder. Hartford (1999) also investigated the characteristics of cash-rich bidders and find that they are more likely to conduct diversifying acquisitions than cash-poor bidders, and that cash-rich bidders tend to acquire targets of the interest of other bidders.

#### 4.1.3. Managerial hubris and herding

Among with the business environmental shocks and agency problems, managerial hubris and herding behavior has been linked to takeover clustering. When bidding firms' management is affected by hubris they are suffering from bounded rationality and end up paying too much for the targets. Roll (1986) suggest that managerial hubris is the main reason behind value destructing acquisitions, as overconfident managers overestimate the potential synergy gains from mergers and end up paying too much for the targets. According to Roll's (1986) hubris theory, if markets are efficient there are no gains from acquisitions, and takeovers occur simply because acquiring firm's managers are affected by hubris and make incorrect valuations. Research by Georgan & Renneboog (2004) further support Roll's (1986) hubris theory as they find that one third of large European takeover bids in the 1990s were affected by managerial hubris.

Roll's (1986) hubris hypothesis combined with herding behavior can partially explain takeover clustering. Herding behavior refers to situation where individuals mimic the actions of larger groups. Herding behavior can lead to merger waves, as the first successful transactions motivate other companies to carry out similar transactions. Herding usually leads to situation where acquisitions are mostly motivated by the actions of other companies rather than economic reasoning. Takeovers affected by herding suffer from managerial hubris, as managers overestimate the synergistic benefits and end up overpaying for targets. Therefore, combination of herding & hubris leads to situation where rational acquisitions are followed by irrational acquisitions (Martynova & Rennebook 2008). This assumption of hubris and herding is supported by the study of Hartford (2005) who find that takeovers occurring in the later stage of the takeover wave lead to lower abnormal returns than those at the beginning of the wave.

#### 4.1.4. Market timing

Market timing theories of merger waves build upon the assumption that merger waves are caused by market timing attempts by corporate managers. During the times of financial market boom, corporate managers may try to take advantage of temporally overvalued equity and used it to purchase less overvalued targets (Myers & Majluf 1984). Based upon this assumption Shleifer & Vishny (2003) propose a theory where acquisitions are driven by stock market valuation of merging firms. Opposite to Roll's (1986) hubris theory researchers assume that corporate managers are rational and financial markets are inefficient. Rational managers understand market inefficiencies, and take advantage of them by acquiring undervalued assets. According to Shleifer & Vishny (2003) merger waves occur because of temporary market inefficiencies. Booming stock markets tend to temporally overvalue equity, and the level of overvaluation varies greatly across companies. Rational managers of acquiring firms take advantage of this temporal dispersion and purchase less overvalued targets using their own overvalued equity.

The relationship between market valuation and mergers waves is investigated also in the study by Rhodes-Kropf & Viswanathan (2004). Authors argue that theory of overvalued bidders taking over less overvalued targets is incomplete, because targets should not accept overvalued equity. In spite of this expectation, authors show that when the markets are booming target firm managers accept overvalued bids, mainly because they overestimate the possible synergies from these transactions. This is explained by the fact that even rational managers make mistakes in extreme market conditions. Findings

of Rhodes-Kropf & Viswanathan (2004) suggest that misvaluation has a substantial impact of all mergers, and that period of stock market undervaluation and overvaluation drive merger waves. Dong, Hirshleifer, Richardson & Teoh (2006) complement these findings by providing additional evidence on misvaluation theories of takeovers. Using the residual-income-to market ratio authors find that bidders are on average more overvalued than targets, and that increase in bidder overvaluation increases the probability of takeover. These finding support the hypothesis suggesting that acquisitions are driven by stock markets. Dong et al. (2006) also show that Q-theory described in the business environment shocks chapter explains takeover clustering prior the 1990s, while evidence for overvaluation hypothesis is stronger in the 1990-2000 period.

## **4.2. M&A motives**

The purpose of this chapter is to introduce different theories explaining the motives behind takeover decisions. First I will introduce general motives for M&A decisions. Following that the motives and characteristics of banking M&A will be presented in a separate section. Of course every M&A transaction is unique and motivated by different reason. However, in general acquirer motives can be classified either as value-increasing or value-decreasing. Value-increasing motives for M&A include different synergistic theories, whereas typical value-decreasing motives for M&A are related to managerial hubris, agency conflicts and market timing Nguyen, Yung & Sun (2012) studied the motives behind 3520 U.S. domestic M&As between the years 1984 and 2004 and find that over 78% of these transactions are related to at least two different motives. Researchers argue that it is hard to establish a clear picture on M&A motives, as value-increasing and value-decreasing motives typically co-exist. However, authors find evidence that merger motivation include market timing, synergies, managerial hubris and responses to industry shocks.

### **4.2.1. Value-increasing theories**

Synergies are probably the most quoted reason for M&As. The idea behind synergies is that two firms combined are more valuable than two separate entities. Synergies should create value for the shareholders of both the acquiring firm and the target. When the merging firms are combined, cost savings can be achieved by cutting overlapping operations and by creating the economies of scale (Weitzel 2011). Nguyen et al. (2012)

argue that synergistic acquisitions are driven by several different motives. These motives include increase in market power, responses to industry shocks, operational synergies, financial synergies and economies of scale. Previous literature on the synergistic acquisitions finds some proof for these motives. Helay, Palupu & Ruback (1992) study whether corporate performance improves after acquisitions and find evidence for operational synergy hypothesis. In particular researchers find that, merged firms have compelling improvements on their operational cash flows compared to their non-merging peers. These improvements are mostly driven by improvements in asset productivity and are stronger for firms with overlapping business. Findings of Helay et al. (1992) support the hypothesis that M&A can indeed lead to efficiency improvements through operational synergies.

Considering the financial synergies motive Ghos & Jain (2000) find that financial leverage measured by the ratio of book value of total debt to book value of assets increases significantly following mergers. This increase in financial leverage is mostly driven by the increase in debt capacity, that merging firms can achieve by combining together. Researchers also show that increase in financial leverage around mergers is positively correlated with announcement period market-adjusted returns. Ghos & Jain (2000) argue that an increase in financial leverage can benefit shareholders of the merging firm in two ways. First benefit arises from the tax deductibility of interest payments. Because interest payments of corporate debt are tax deductible, shareholders can benefit from the increase in financial leverage. Shareholders of merging firm can also increase their wealth through the expropriation of wealth from bondholders by financing merger with debt. Previous literature from the tax-associated motivation for mergers is somewhat mixed as Hayn (1989) show that tax considerations motivate firms to acquire, but Auerbach & Reishus (1988) argue that even though firms can achieve tax benefits from acquisitions, these benefits are not driving factors for takeover decisions.

Market power theory offers alternative motive for wealth increasing M&A. According to market power theory, firms can benefit from increased market power by charging higher prices from customers and earn greater margins (Weitzel 2011). Kim & Singal (1993) study the effects of mergers in airline industry between the years 1985 and 1988 and find support for market power theory. Researchers show that merging firms were able to charge higher prices from their customers relative to their non-merging competitors. Increased prices led to higher profitability and had positive impact on shareholder wealth. These findings are strictly in line with market power theory,

suggesting that acquiring market power leads to higher profitability. On the other hand studies by Mueller (1985) and Eckbo (1992) show that attempts to increase market power through M&A does not pay. Yet again the evidence on the profitability of market position increasing M&A is mixed. While some studies find it to be profitable, other find that it may be even harmful. Despite the contradictory evidence on the profitability of market power increasing M&A, it still is one most popular motive for M&A.

Another motive for value-increasing M&A arises from the theory of corporate control. One of principals of management is that managers should run the company in a way that maximizes shareholder wealth. According to the theory of corporate control, if a firm is managed poorly and is underperforming relative to its peers there is always another firm that is willing to takeover poorly performing firm and replace its underperforming management. Replacement of an underperforming management should increase the performance of acquired firm and maximize shareholder wealth. According to corporate control theory hostile takeover are likely to happen in a poorly managed firms, as incumbent managers are likely to resist takeover attempts. Research by Jensen & Ruback (1983) finds some support for corporate control theory. Scholars argue that mergers do increase shareholder value and that this increase does not come from the creation of the market power. They also argue that increase in shareholder wealth is partly attributable for the new managers, which allow the firm to be more efficient and profitable in the future. (Weitzel 2011.)

#### 4.2.2. Value-decreasing theories

As described in the literature review majority of M&A transactions fails to create value for the acquiring firm. Even though M&A is a popular restructuring tool and usually done in order to increase operational efficiency and profitability, it is an established fact that majority of M&As fail. Failure rate of M&A has motivated scholars to put on value-decreasing theories, to better understand what drives takeover decisions. According to Weitzel (2011) value-decreasing theories can be split into two groups: The first group assumes that bidding firm management is suffering from bounded rationality, and thus makes mistakes that lead to losses as a result of informational constraints, despite having value-increasing intentions. The second group of theories assumes that managers are rational, but instead of maximizing the firm value they aim to maximize their own utility at the expense of shareholders. First group of theories include Roll's (1986) theory of managerial hubris and Jensen's (1986) theory of managerial discretion. The second group includes theory of managerial entrenchment by

Sceifler and Vishny (1986) and theory of empire building by Marris (1963). All of these theories are already introduced on the chapter 4.1 as driving forces for mergers waves, thus I will not present them again in this section.

### **4.3. Determinants of M&A in banking**

In this chapter I will cover the literature on the determinants and characteristics of banking M&A. As mentioned before consolidation in financial industry has been intense during the past few decades. Due to the consolidation number of operating banks has declined significantly. The number of credit institutions in EU-15 dropped from 12,000 at the end of year 1990 to only a bit over 7000 in 2004, with domestic M&A being the driving force for this decline (Asimakopoulus & Athanasoglou 2013). As a result of this consolidation typical financial service firm is now larger, more diversified and operates in more markets than ever before. Financial and technological innovations combined with the deregulation of financial markets have been the broad forces behind this movement. Consolidation of global financial service firms is expected to continue even further, as banks are re-structuring to respond in changing regulation, technological innovations and crisis that shake up our financial system. (DeYoung et al. 2009.)

Technological progress have had huge role in banking industry consolidation. Banks are major users of financial and informational technology and developments in these fields have altered banks production functions leading to changes in how banks operate. Berger (2003) investigates the effects of technological progress in banking industry and finds that improvements in “back-office” technologies and “front-office” processing have cut costs for the banks and enabled them to increase their lending capacity. Berger (2003) suggests that progress in technology facilitates consolidation in several ways. First new banking products created by technology development generate opportunities for efficiency improvements through the fast spread of these products by M&A. Second technology improvements help banks to identify potential targets where they can improve efficiency by implementing these new technologies. Third technological progress reduces risks and transaction cost associated with M&A. All in all, Berger (2003) finds that progress in technology facilitates consolidation by making it more efficient for banks to be larger, more geographically dispersed and to engage in M&A activity.

In addition to progress in technology, deregulation of financial markets have had huge impact on consolidation in banking industry. Deregulation of financial markets allowed banks to expand their operations into geographical areas and product markets, which were previously off-limits. This expansion was done mainly via M&A. The number of bank M&A started to slowly increase in the U.S. in early 1980s, and really took off in early 1990s. Deal volumes in European banking sector started to increase in the end 1990s, as the EU's directive of financial market integration was approved. (DeYoung et al. 2009.)

As described above deregulation and technological innovation have been the broad forces driving consolidation in the banking sector. These factors have enabled rapid expansion of the banking sector, and the main motive behind this expansion is the desire to sell more services. In addition to broad forces that drive consolidation in financial industry, determinants that increase the likelihood of being either a target or an acquirer have been studied as well. Several studies examine the profitability of banking M&A by focusing on the abnormal returns around the acquisition date. In addition to the abnormal returns of M&A transactions, it is important to understand the determinants underlying these transitions, as these factors may affect M&A profitability. Previous research on M&A determinants mostly focuses on bank-specific variables such as size, leverage, liquidity, profitability and growth. (Beccali & Frantz 2013.)

Size of a target or acquirer may affect M&A in numerous ways. It is obvious that larger banks are more expensive to acquire than smaller banks. Larger banks have also more resources, and these banks can use these resources to acquire smaller banks or to fight against hostile acquisitions. Previous findings of the association between bank size and probability of being acquired are a bit mixed. Moore (1997) finds that banks market share, capital asset ratios and profitability are negatively related to likelihood of being acquired. On the other hand Akhigbe, Madura & Whyte (2004) study a sample of 254 U.S. banking acquisitions from 1987 to 2001 and find that probability of being acquired is higher for large banks, banks that have lower return on assets and higher levels of capital.

Growth is another factor that may increase banks attractiveness as a target. Banks with high historical growth rates may appear as potential targets. On the other hand acquirers may seek targets with a low historical growth rates, as they think that they could accelerate targets growth and hence increase its market value. Pasiouras, Tanna & Gaganis (2011) study the determinants of commercial bank acquisitions in European

Union single market from 1997 to 2002 focusing on bank and market specific factors. Their findings indicate that banks with slow growth rates may end up acquired, as targets are found to be less profitable with lower growth prospects and acquires are found to be more profitable with higher growth prospects. Findings of Beccanelli et al. (2013) also show that historical growth is associated with likelihood of being acquired, as they find that banks with history of high growth are more likely to become acquired than banks with lower historical growth rates.

Liquidity is another important variable that may influence banks attractiveness as a target. The effect on liquidity can be either negative or positive depending on the acquiring bank motives. If a bank is failing to meet the liquidity obligations it may end up as a target, signaling that low liquidity increases the acquisition likelihood. On the contrary excess liquidity may indicate the lack of investment opportunities or poor allocation of assets, making these banks as an attractive targets for acquirers with liquidity constraints. Findings of Pasiouras et al. (2011) indicate inverse relationship between liquidity and likelihood of being target, as target banks are less profitable with lower liquidity and lower growth in total assets, while acquires are more profitable banks with higher growth prospects. Results of Beccanelli et al. (2013) further support the theory that low liquidity increases the likelihood of acquisition, as they find that acquires had lower capital strength and higher liquidity on year prior the M&A.

In addition to liquidity capital strength can also influence banks M&A decisions. Beccanelli et al. (2013) argue that capital strength measured as equity over total assets can be either positively or negatively related to banks attractiveness as a target. Most of the previous banking studies find negative relation between capital strength and probability of being target (Hannan & Pilloff 2009; Pasiouris et al. 2011). Beccanelli et al. (2013) provide arguments to support both the negative and positive relation between capital strength and probability of being acquired. First argument to support negative relation is that if capitalization is a proxy of managerial efficiency, acquirers are likely to takeover less capitalized banks as they provide greater turnaround potential. The second argument to support negative relation is that lower capitalized banks are cheaper to takeover and therefore more attractive targets. In contract, argument to support positive relation is that acquirers prefers highly capitalized banks if they face regulatory pressure to increase capitalization. By taking over highly capitalized banks acquires can meet up the regulatory obligations. The second argument supporting positive relation is that if highly capitalized banks are unable to diversify their assets these banks are more

worth to acquirers who can diversify their asset better, thus being highly capitalized can increase the likelihood of being acquired.

Loan activity is another bank-specific variable to consider when evaluating potential targets. Hannan & Rhoades (1987) note that banks with large loan portfolios are likely to have aggressive lending behavior and strong market penetration, thus they may seem like an attractive targets. On the contrary banks with relatively small loan portfolios may lack lending opportunities or suffer from conservative management. Larger more aggressive bank may therefore take them over and increase lending to increase returns. Loan activity is usually measured as loan-to-asset ratio. Previous studies find negative relation between loan activity and acquisition likelihood (Hannan & Rhoades (1987; Pasiouris et al. 2011).

Altogether, bank specific variables should be considered when evaluating determinants of M&A and the profitability banking M&A. I will also include bank specific variables in my regression analysis, in order to find the factors explaining M&A success in Russia

#### **4.4. Ownership structure and firm value**

Since this thesis is measuring the effect of ownership structure on post acquisition performance, it is useful to understand how does ownership structure affect firm value. Ownership structures and economic landscape varies a lot around the globe, and the dispersedly held corporations typically seen in UK and US are rather rare in Russia. On the contrary ownership concentration and state participation in financial markets are very common in Russia, especially in the banking sector. Previous studies on the relationship between ownership structure and firm value show that firm value may differ due to different ownership structures. In this chapter, I will present some previous studies on the issue.

The relation between ownership structure and performance has been a topic of debate since the seminal work by Berle & Means (1932). Scholars argue that dispersed ownership reduces the shareholders ability to monitor and control the management of the firm, highlighting the principal-agent problem. Similarly Shleifer & Vishny (1986) argue that ownership concentration improve corporate control by improving the shareholders' ability to monitor the management. Ownership concentration may thus reduce the agency problem between shareholders and the management. On the other

hand, large shareholders may have interests that are different from the interest of minority shareholders. Thus, they may end up exploiting minority shareholders to serve their own interest. In line with these findings, previous research has identified two well-defined agency problems that should be taken into account when analyzing the corporate control structures. These agency problems are defined as principal-agent problem and minority expropriation problem.

Jensen & Meckling (1976) were among the first to present the idea of minority expropriation and the classical principal agent problem. Minority expropriation problem occurs when controlling shareholder engages into non-wealth maximizing activity in order to receive personal benefits from the control of the corporation. Minority expropriation can be further intensified by the use of different corporate control methods, such as stock pyramids, cross-shareholdings, and dual class shares (La Porta et al. 1999). By the use of control methods, controlling shareholder may hold majority of the voting rights, while at the same time they are holding only a fraction of the cash flow rights. The separation of ownership from control can thus increase the possibility of minority expropriation and increase agency costs (Ben-Amar & André 2006).

Thomsen & Pedersen (2000) investigate the relation between ownership structure and firm performance using data on 435 largest European companies between the years 1990–1995. Ownership structures are classified based on the largest shareholder of the company. Scholars argue that the share and the identity of the largest shareholder is a fairly good measure of ownership structure for the European companies, since ownership concentration is rather common in Europe. Sample is further divided into five different ownership categories: institutional investor, bank, non-financial company, family/person and government. Scholars measure economic performance by asset returns and market-to-book ratios. Industry, capital structure and national effects are controlled by the use of dummy variables.

The main finding of the study by Thomsen & Pedersen (2000) is that ownership concentration has a positive effect on shareholder value. However, the effect levels of for the high ownership shares, since the ownership share has a positive and significant effect on market-to-book ratios, and the square of ownership share has a negative and significant effect. So the effect of ownership concentration is bell-shaped rather than linear. The effect of ownership concentration on company performance depends on ownership identity, as results are different for different types of ownership. Findings of Thomsen & Pedersen (2000) support also the hypothesis that the identity of a large

owner has significant implications for the company strategy and performance. Companies owned by financial institutions have higher market-to-book ratios than companies owned by government. In general the main goal of the financial institutions and institutional investor are to maximize the profits, whereas companies owned by governments and families may consider other aspects as well.

Bennett (2010) examine the effect of ownership structure on the market assessment of asset sales. The goal of the paper is to find out whether ownership structure affects firm performance. Bennett (2010) classifies his sample firms into three categories based on ownership structure: large inside shareholders, large outside shareholders and widely held firms. Performance is measured by markets reaction to asset sales announcements using well-established event study methodology. Furthermore, the cumulative abnormal returns are compared between these three ownership groups, and tested using dummy variable regressions.

The empirical results of Bennett's (2010) study indicate that ownership structure does have an effect on markets assessment on asset sales. Abnormal returns are significantly greater for firms with large outside shareholder when compared to widely held firms and firms with large inside shareholders for both buying and selling samples. The results of the Bennett's (2010) study show that agency problem found in previous literature is not only present in widely held firms, but also in firms with large inside ownership. Altogether findings of the study are in line with the previous studies on the relation between ownership structure and firm performance, indicating that large outside shareholder may have positive effect on firm performance.

Iannotta, Nocera & Sironi (2007) evaluate the impact of different ownership structures on bank performance and risk in the European banking industry. Sample of the study consist of 181 large banks from 15 European countries between the years 1999 and 2004. Iannotta et al. (2007) argue that a firm's ownership structure is defined along two main dimensions, ownership concentration and the nature of ownership. At first firms may differ, as their ownership structure is more or less concentrated. At second two firms may have the same degree of ownership concentration, but one is publicly owned and the other privately held. Scholars present three types of ownership structures that coexist within European banking industry: privately owned stock banks, mutual banks, and government-owned banks. Despite the ownership structure differs between these three groups, they are competing at the same market within same regulatory framework and institutional settings. Iannotta et al. (2007) argue that since these banks are

competing in same markets under same rules any structural differences in their performance may be regarded as inefficiency.

The results of Iannotta et al. (2007) show that bank risk and performance differ between different ownership structures. Authors find significant differences in risk and performance, after controlling for bank characteristics country and time effects. Summing up the results show that government-owned banks are less profitable and more risky than privately owned banks, although they are having lower costs. Profitability is highest among privately owned banks and this profitability comes from higher net returns on earning assets instead of better cost efficiency. Concerning the risks, public sector banks are having poorer loan quality and higher insolvency risk than privately owned banks and mutual banks. Findings on the effect of ownership concentration are a bit inconsistent. Iannotta et al. (2007) find that profitability is not significantly different between banks with concentrated ownership structure and banks with more dispersed ownership structure. However, higher ownership concentration is associated with better loan quality, lower insolvency risks and lower asset risk.

Most of the studies addressing the issue between ownership structure and performance focus on developed markets and non-financial firms. Ownership structures and institutional settings are vastly different in emerging markets, when compared to developed markets. Therefore, the results from studies on developed countries may not be generalized or applicable in emerging markets. Studies on ownership structures and bank performance from emerging markets are more relevant for this study also, since I am focusing on emerging Russian markets. Rahman & Reja (2015) study the impact of different ownership structures on bank performance in developing Malaysian markets during 2000 – 2011. Rahman & Reja (2015) test five categories of ownership including: insider, family, government, institutional and foreign ownership. Bank performance is measured by return on equity and return on assets. The impact of ownership structure on bank performance is further tested with multiple regressions with fixed effects.

The results of Rahman & Reja (2015) suggest that different types of bank ownership have an impact on bank performance. Findings of the government ownership on bank performance are in line with the results of Iannotta et al. (2007) as high level of government ownership decreases bank performance. Insider ownership is also significantly decreasing bank performance. This result is inconsistent with the hypothesis that insider ownership increases bank performance. However, Rahman & Reja (2015) argue that possibly existing shares held by the insiders are not sufficient

enough to align insider's motives with managers and shareholders, and to motivate them to work towards maximizing shareholder value. Rahman & Reja (2015) results for other ownership categories in the study are insignificant.

## 5. DATA AND METHODOLOGY

This chapter presents the research hypotheses, data and methodology used in this study. First subsection presents research hypotheses. Following that data used in this study is defined and described. Lastly, applied research methodologies are presented.

### 5.1. Research hypotheses

The purpose of this study is to investigate short-term profitability of the Russian banking M&A and the relationship between ownership structure and post acquisition performance. More precisely, this thesis investigates whether concentrated ownership lead to better post acquisition performance, does owning a minority stake of the target prior the acquisition increase post acquisition performance and what is the impact of state ownership on post acquisition performance. In order to answer to the research questions six hypotheses are formed.

Most of the previous research studying short-term profitability of M&A find that abnormal returns around announcement date are either zero or negative for acquiring firms (Campa & Hernando 2006; Beltratti & Paladino 2013). In light of these findings the first hypothesis is formed as follows:

*H1: Mergers and acquisitions cause negative abnormal returns for acquiring firm shareholders*

The second hypothesis is related on the impact of geographical scope of the transaction. Campa & Hernando (2006) study a European sample of 244 M&As from financial industry from 1998 to 2002 and find that domestic transactions yields relatively better returns for acquirers than cross-border transactions. The second hypothesis is motivated by these findings and is constructed as follows:

*H2: Domestic M&A transactions lead to better post acquisition performance than cross-border M&A transactions*

The third hypothesis answers to the question whether state ownership has a positive impact on post acquisition performance. Previous research by Du & Boateng (2014) finds that state ownership has a positive and significant impact on announcement period abnormal returns in China. Authors argue that Chinese firms with state ownership benefit from political ties with government and preferential access to resources. In light of these findings the third hypothesis is constructed as follows:

*H3: State ownership has a positive impact on post acquisition performance*

The fourth hypothesis is motivated by the findings of Yen & André (2007) and by the assumption that ownership concentration lead to decreasing agency costs and therefore better post acquisition performance. The fourth hypothesis is constructed as follows:

*H4: Ownership concentration leads to better post acquisition performance*

The fifth hypothesis builds upon the assumption that owning stake of the target prior the acquisition leads to inside information on target's business and future prospects. Thus, it will lead to better post acquisition performance. This hypothesis is also motivated by the previous findings on the positive relation between experience of the bidder and post acquisition performance (Goddard et al. 2012). The fifth is constructed as follows:

*H5: Owning a stake of the target prior acquisition increase post acquisition performance*

Lastly, the sixth hypothesis investigates whether abnormal returns are different during the financial crisis. Beltratti & Paladino (2013) find that during financial crisis investors assign much more uncertainty for the completion of M&A transactions, and reward successful deals with delayed abnormal returns. In light of these findings sixth hypothesis is constructed as follows:

*H6: Abnormal returns following acquisition announcements are lower during financial crisis*

## 5.2. Data

The first set of data used in this study consists of acquisition announcements of publicly traded Russian banks. This data is collected from the databases of the University of Vaasa, where the original data source is Thomson Reuters. This study focuses on M&A deals that occurred between the years 2005 and 2016. Few of the previous studies find that post acquisition performance may be different during financial crisis and market turmoil. During the sample period, there were two major crises in the Russian markets that might have affected stock returns of the sample firms. First of these events was the global financial crisis of 2008. The second of these events is the recent financial crisis in Russia that started with the collapse of Ruble in the second half of 2014. In order to see whether the abnormal returns have been different during crisis, the effect of financial crisis on abnormal returns following acquisition announcements is analyzed. My original idea was to analyze the effects of the recent financial crisis in Russia, which started in 2014, but after matching the data with sample criteria below, there were no single event left to analyze between the years 2014 and 2016. In the end the final sample period is 2005 – 2013, and the financial crisis period is defined as 2008 – 2010. Final sample is set to match the following criteria:

- (i) The announcement date of the deals is between 01.01.2005 and 31.12.2016
- (ii) Both the acquirer and the target are banks or credit institutions having the SIC code of 6000
- (iii) M&A deals have been completed and not pending or withdraw
- (iv) The acquiring bank is Russian and publicly traded
- (v) Bidding bank acquired at least 10% of target banks equity
- (vi) Multiple transactions by the same bidder within 30-day rolling window are excluded. This is done in order to avoid possible bias that overlapping events could cause.

Matching the data with sample criteria lead to final sample of 20 M&A transactions. 11 of these transactions were domestic and 9 cross-border. As mentioned before, there was no single M&A deal within the Russian banking sector that matched the sample criteria between the years 2014 and 2016. So, eventually this thesis focuses on M&A deals in Russian banking sector between the years 2005 and 2013. Because of the lack of data, the original idea of analyzing subsample for recent Russian financial crisis is abandon. Since there were no single M&A transaction matching the sample criteria, it is clear that the recent financial crisis in Russia and the recent actions of CBR has reduced takeover

activity in the Russian banking sector. Table 2 presents the distribution of deals by year. As it can be seen from the table the sample is scattered quite evenly across the years. However, following the financial crisis of 2008 – 2010 there were modest increase in takeover activity. This indicates that the takeover activity increased after the financial crisis.

**Table 2.** Distributions of M&A deals by year.

Year	M&As	%
2005	1	5%
2006	2	10%
2007	0	0%
2008	1	5%
2009	2	10%
2010	3	15%
2011	4	20%
2012	4	20%
2013	3	15%
2014	0	0%
2015	0	0%
2016	0	0%
Total	20	100%

After the announcement dates of M&As is identified next step is to obtain share prices of bidding banks surrounding the acquisition announcements. In addition, returns of the benchmark index are needed for the calculation of abnormal returns. There are two major indexes in Russian stock markets, namely MICEX Index and RTS Index. Both of these indexes are capitalization-weighted composite indices, based on the prices of most liquid Russian stocks. MICEX Index is denominated in rubbles and RTS Index is denominated in dollars. MICEX Index is chosen as a proxy for market returns. Historical prices for acquiring banks and for benchmark index are collected through Thomson Reuters Datastream.

In order to measure the impact of ownership structures on post acquisition performance, Information on shareholders of bidding banks is needed. This information is hand-

collected mainly from annual reports of bidding banks and from banks web pages. Key financials of bidding banks are retrieved from Bureau van Dijk's Orbis database.

### 5.3. Event study methodology

Most of the previous studies measuring shareholder wealth effects following M&A announcements use event study methodology. This approach is usually two-staged, first the abnormal returns following acquisition announcements are calculated and then these returns are regressed to a set of control variables. According to Andrade et al. (2001) and as mentioned before, the most statistically reliable evidence on M&A value creation comes from the short-window event studies. This study will follow the approach of previous studies and use well-established event study methodology to measure the shareholder wealth effects following M&A announcements.

Event studies are used to capture some specific events impact on company's market value. This event can be a macroeconomic event or a company specific news announcement, such as earnings announcement, dividend announcement or like in this thesis acquisition announcement. Fama, Fisher, Jensen & Roll (1969) were among the first to present event study methodology when they studied the impact of stock splits on stock prices. After that event studies have become widely used methodology in the field of economics, accounting and finance. According to MacKinlay (1997) event study is a powerful way to measure certain event's impact on company's value and returns. The usefulness of these studies relies on the efficient market hypothesis, assuming that the impact of some specific event will be reflected on the security prices immediately.

First step in event study analysis is to calculate the realized returns for acquiring banks and for the market index. Realized returns are needed to calculate abnormal returns. Realized returns can be calculated using absolute values or by using logarithmic values. Majority of the previous studies use logarithmic values for return calculations. Vaihekoski (2016) also suggest using the logarithmic returns, so logarithmic values are used in this thesis as well. Realized returns can be calculated using following formula:

$$(1) \quad R_{it} = \ln\left(\frac{P_{it}}{P_{i,t-1}}\right),$$

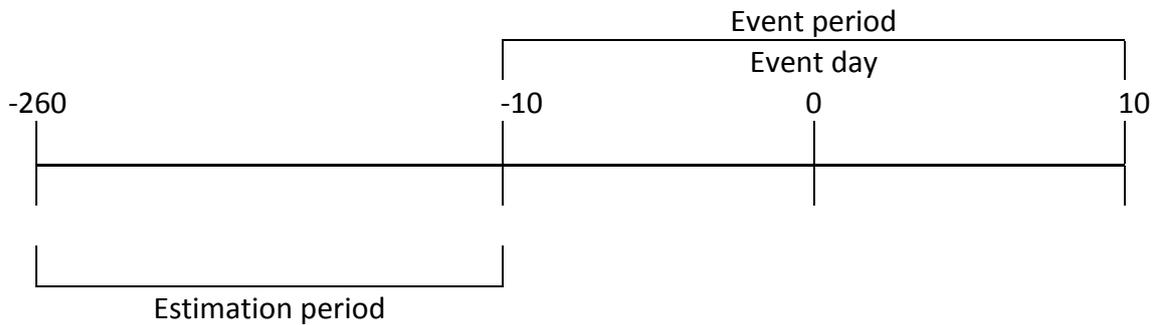
Where,  $R_{it}$  is the realized return for stock  $i$  in time  $t$ ,  $P_{it}$  is the price of the stock  $i$  in time  $t$ , and  $P_{i,t-1}$  is the price for stock  $i$  at time  $t - 1$ .

After the realized returns have been calculated next step is to obtain expected returns within event window. Setting up event window is a crucial part in event study, and it should be set in a way that it immediately captures the information content of the announcement. Along with the event window, estimation window is set to estimate the parameters  $\alpha$  and  $\beta$  for statistical analysis of abnormal returns. Normal length of the estimation window is 250 trading days (MacKinlay 1997). Following previous research estimation window is set to 250 trading days also for this study. Estimation window and event window cannot overlap, so the estimation period is set to end one-day prior event window. For this study event window is set as 21 days surrounding the acquisition announcement. This is done in order to investigate potential information leakages prior the acquisition announcement and to capture potential sluggish market reaction. (MacKinlay 1997).

Brown & Warner (1980) were among the first to present the idea of using market model in event studies when they studied the information content of earnings announcements. Market model has afterwards established as the most used and most reliable tool in event study analysis. Market model allows one to study return of any given asset compared to market portfolio. The model contains econometric parameters  $\alpha$  and  $\beta$ . These parameters are derived from historical prices of market portfolio and stock  $i$ . With the ordinary least square estimators  $\alpha$  and  $\beta$  expected return for stock  $i$  is a linear function, where  $\beta$  measures the sensitivity of stock  $i$  compared to market portfolios return. Market model is used also in this study in order to analyze investor's reaction to acquisition announcements of Russian banks. The equation for market model is following:

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

Where  $E(R_{it})$  is the expected return for stock  $i$  at time  $t$ ,  $R_{mt}$  is the return of the benchmark market portfolio at time  $t$ ,  $\varepsilon_{it}$  is the error term for security  $i$  at time  $t$  and  $\alpha_i$  and  $\beta_i$  are stock specific parameters that are estimated using ordinary least squares. These parameters are estimated from the historical prices starting 260 prior acquisitions and ending 10 days before the acquisition announcement. Timeline for event study is shown in figure 2 below.



**Figure 2.** Event study timeline.

After the expected returns are calculated, next step is to calculate the abnormal returns. The basic idea behind event studies is to investigate whether some event, which in this study is M&A, has impact on a company's market value. Abnormal return is the difference between actual return and expected return. Abnormal returns are calculated using following formula:

$$(3) \quad AR_{it} = R_{it} - E(R_{it})$$

Where  $AR_{it}$  is the abnormal returns for the stock  $i$  at time  $t$ ,  $R_{it}$  is the realized return for stock  $i$  at time  $t$  and  $E(R_{it})$  is the expected normal return calculated with equation (2).

As mentioned above the event window  $T$  is 21 days:  $T = [-10; +10]$  days, where  $t=0$  denotes the announcement day. Inside this event window several different periods such as  $(-1; +1)$ ,  $(-3; +3)$ , and  $(+1; +5)$  are studied as well. After the abnormal returns are calculated they are averaged using the following formula.

$$(4) \quad \overline{AR}_t = \frac{1}{N} \sum_{i=1}^n \cdot AR_{it}$$

Where  $N$  is the number of stocks analyzed and  $t$  is the point of time to analyze. (Beitel et al. 2004)

Next the abnormal returns are aggregated over the event window. Following Beitel et al. (2004) cumulative abnormal returns (CAR) for interval  $(t_1, t_2)$  are calculated using following formula:

$$(5) \quad CAR_{(t_1, t_2)} = \sum_{(t_1, t_2)} \overline{AR}_t = \sum_{(t_1, t_2)} \frac{1}{n} \cdot \sum_{i=1}^n AR_{it}$$

Where  $CAR_{t_1, t_2}$  is the cumulative average abnormal return for the period  $t_1 - t_2$ . Cumulative average abnormal returns show the total impact of M&A announcements on shareholders wealth.

Last step in event study analysis is to test, whether abnormal returns are statistically significant. Statistical significance of average abnormal returns (AARs) and cumulative abnormal returns (CAARs) are tested by t-statistics suggested by Dodd & Warner (1983). Statistical significance of CARs within the event window is also tested with J-statistic suggested by Vaihekoski (2016).

$$(6) \quad J_1 = \frac{\overline{CAR}_i(t_1, t_2)}{\sqrt{\sigma^2(t_1, t_2)}} \sim N(0, 1)$$

Where variance term  $\sigma^2$  is calculated as follows:

$$(7) \quad \begin{aligned} \sigma^2(t_1, t_2) &= \frac{1}{n} \sum_{i=1}^N (t_2 - t_1 + 1) \sigma^2(t_1, t_2) \\ &= (t_2 - t_1 + 1) \sigma^2(t_1, t_2) \end{aligned}$$

#### 5.4. Regression model

After the event study is conducted and the CARs for bidding banks have been calculated, next step is to identify the determinants of abnormal returns. Following Beitel et al. (2004) and Kyriazopoulos & Drymbetas (2015) regression analysis with array of explanatory variables is used to analyze the determinants of abnormal returns. The purpose of this study is to investigate the relationship between ownership structure and post acquisition performance. This relationship is tested by cross-sectional regressions. All regression performed are simple OLS regressions. The dependent variable in regression is CAR (-1; +1) of the bidders. Independent variables include

different ownership variables and a set of control variables. The multivariate regression model is as specified as follows:

$$(8) \text{ CAR } [-1; +1] = \beta_0 + \beta_1 \text{CONCEN50} + \beta_2 \text{CONCEN70} + \beta_3 \text{CONCEN90} + \beta_4 \text{STATE} + \beta_5 \text{INSIDE} + \beta_6 \text{DOMESTIC} + \beta_7 \text{CRISIS} + \beta_8 \text{SIZE} + \beta_9 \text{CAPITAL} + \beta_{10} \text{ROE} + \epsilon$$

Where, CAR is the cumulative abnormal return for bidding bank within the event window  $T=(-1; +1)$ ,  $\beta_0$  is the regressions constant,  $\beta_1 \text{CONCEN50}$  is a dummy variable for concentrated ownership at 50 % threshold,  $\beta_2 \text{CONCEN70}$  is a dummy variable for concentrated ownership at 70 % threshold,  $\beta_3 \text{CONCEN90}$  is a dummy variable for concentrated ownership at 90 % threshold,  $\beta_4 \text{STATE}$  is a dummy variable for state ownership,  $\beta_5 \text{INSIDE}$  is a dummy variable taking a of one if bidding bank held a stake in target prior acquisition,  $\beta_6 \text{DOMESTIC}$  is a dummy variable for domestic acquisitions,  $\beta_7 \text{CRISIS}$  is a dummy variable for financial crisis,  $\beta_8 \text{SIZE}$  is the logarithm of total assets,  $\beta_9 \text{CAPITAL}$  is the logarithm of capital ratio determined as equity to assets ratio,  $\beta_{10} \text{ROE}$  is the logarithm of return of equity ratio and  $\epsilon$  is the error term of regression.

All in all four different models are estimated. Every model uses a different ownership structure variable. Independent ownership structure variable in model 1 is  $\beta_1 \text{CONCEN50}$ , model 2 use  $\beta_2 \text{CONCEN70}$ , model 3 use  $\beta_3 \text{CONCEN90}$  and finally model 4 use  $\beta_4 \text{STATE}$ . As mentioned above, dependent variable in regression is 3-day CAR, which has established as a reliable indicator of performance for acquiring firm around acquisition announcement (Brunner 2002; Beitel 2004).

The impact of ownership concentration on post acquisition performance is measured using dummy variables with different cut-off points. When a large shareholder holds more than 50% of a company it not only dominates the company but also legally controls the firm (Yen & André 2007). Ownership concentration should reduce agency costs and therefore lead to better post acquisition performance. To examine the impact of this ownership structure on post acquisition performance, a dummy variable at 50 % threshold is set. Along with the ownership concentration at 50 % threshold, dummy variables at 70 % and 90 % threshold are set to capture the impact of more extreme levels of ownership concentration.

Most of the previous studies on the impact of state ownership on banks lending or performance use dummy variables that takes a value of one if government held a certain percentage of banks equity (Sapienza 2004; Ianotta et al. 2007). CBR defines a bank state owned if more than 50% of banks equity belongs to the government. Following recent literature and definition of state ownership by CBR a dummy with a 50 percent threshold is used. The impact of state ownership on post acquisition performance is tested with a dummy variable taking a value of one if a government owns more than 50% of the bidding banks equity.

The model also includes deal specific variables that attempt to capture the impact of these variables on post acquisition performance. Previous research finds that domestic M&A results in higher abnormal returns than cross-border transactions (Beitel et al. 2004; Campa & Hernando 2006; Nnadi & Tanna 2013). Following previous research the impact of geographic focus of the deal is measured with a dummy variable that takes a value of one if the M&A deal is domestic. One of the hypotheses of this thesis is that owning a stake of the target prior acquisition lead to better post acquisition performance. This relationship is tested with a dummy variable that takes a value of one if bidding bank owns a stake of the target prior acquisition. Previous literature on post acquisition performance finds also that abnormal returns may be different during and after the financial crisis, as Arik & Kutan (2015) conclude that abnormal returns are higher after financial crisis and Beltratti & Paladino (2013) find that during financial crisis investors assign much more uncertainty for the completion of M&A transactions, and reward successful deals with delayed abnormal returns. The impact of financial crisis on the abnormal returns is investigated with a dummy variable that takes a value of one if the acquisition was completed during financial crisis.

Lastly the model includes bank specific control variables. Following previous literature on M&A success in banking sector (see e.g. Beitel et al. 2004; Fritsch et al. 2007; Kyriazopoulos 2016), control variables for bank size, capitalization and profitability are included in the model.

## **5.5. Research limitations**

The use of Russian data is causing limitations in this research. Although the sample period is relatively long from 2005 to 2016 there is only 20 M&A transactions matching the sample criteria. Due to a low amount of data, empirical results should be treated

with caution. To increase the sample size, expanding the research to cover also other emerging markets was considered as well, but I decided to focus only on Russian markets due to the unique ownership structures and institutional settings of the Russian banking sector.

## 6. EMPIRICAL RESULTS

This chapter presents and discusses the empirical results of the study with regard to the research hypothesis. First the event study results for the whole sample and different subsamples are presented and discussed. Following that results of the cross-sectional regression analysis on the determinants of abnormal returns are presented.

### 6.1. Event study results

Table 3 below presents the daily average abnormal returns (AARs) and cumulative average abnormal returns (CAARs) for the entire sample of 20 Russian banking M&A. Results are shown for the 21-day event window. Findings of the event study indicate modest positive impact for bidding banks on average, as AARs are positive around the announcement date. In specific AAR is 0,72% on the announcement date and 1,07% one day after the announcement. However, these results are not statistically significant at any conventional level. When looking at the AARs during the 21-day event window negative and statistically significant returns are found in days (-10) and (-7). In specific AAR for day (-10) is -1,76% and in day (-7) AAR is -1,50%. These results are statistically significant at 10% level. These results suggest that there may have been information leakages prior the acquisition announcement, and investors may have shifted their funds from bidders to targets.

CAAR for the whole 21-day event window is negative, but not statistically significant. In specific CAAR for the 21-day event window is -1,81%. Three day CAAR for event window (-1, +1) is moderately positive at 2,31% suggesting that bidding banks earn positive abnormal returns around announcement date. However, these results are not statistically different from zero. When looking at CAARs for various event windows prior and after the after the announcement date, I did not find any statistical significant abnormal returns.

The lack of statistically significant abnormal returns is consistent with the previous findings of Beltratti & Paladino (2013) and Kyriazopoulos & Drymbetas (2015) who find non-significant abnormal returns for bidding banks. These results suggest that M&A fails to create value for bidding banks. In light of these findings hypothesis one that M&A cause negative abnormal returns for bidding bank's cannot be accepted, as abnormal returns are positive and statistically not different from zero.

**Table 3.** Event study results for the whole sample.

Table reports average abnormal returns (AAR) and cumulative average abnormal returns (CAAR) for bidding banks around the M&A announcement. N=20. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

<b>t</b>	<b>AAR</b>	<b>T-Stat for AAR</b>	<b>p-value</b>	<b>CAAR</b>	<b>T-stat for CAAR</b>	<b>p-value</b>
-10	-1,76%*	-1,88	0,06	-1,76%	-0,86	0,39
-9	1,61%	1,47	0,14	-0,15%	-0,07	0,94
-8	-0,19%	-0,46	0,65	-0,34%	-0,17	0,87
-7	-1,50%*	-1,70	0,09	-1,84%	-0,90	0,37
-6	0,00%	0,01	0,99	-1,84%	-0,90	0,37
-5	0,01%	0,04	0,97	-1,83%	-0,89	0,37
-4	-0,88%	-0,94	0,35	-2,71%	-1,32	0,19
-3	-0,57%	-0,71	0,48	-3,27%	-1,60	0,11
-2	0,80%	1,06	0,29	-2,47%	-1,21	0,23
-1	0,52%	0,30	0,77	-1,95%	-0,95	0,34
0	0,72%	1,00	0,32	-1,23%	-0,60	0,55
1	1,07%	0,93	0,35	-0,16%	-0,08	0,94
2	-0,23%	-1,01	0,31	-0,39%	-0,19	0,85
3	-0,79%	-0,90	0,37	-1,18%	-0,58	0,56
4	0,11%	0,30	0,77	-1,07%	-0,53	0,60
5	0,42%	0,63	0,53	-0,65%	-0,32	0,75
6	-0,16%	-0,47	0,64	-0,82%	-0,40	0,69
7	0,04%	0,09	0,93	-0,78%	-0,38	0,70
8	-1,03%	-1,05	0,29	-1,82%	-0,89	0,37
9	-0,40%	-1,65	0,10	-2,22%	-1,08	0,28
10	0,40%	1,08	0,28	-1,81%	-0,89	0,38

<b>[t<sub>1</sub>,t<sub>2</sub>]</b>	<b>[-10,-1]</b>	<b>[-5,-1]</b>	<b>[-3,+3]</b>	<b>[-1,+1]</b>	<b>[0,+1]</b>	<b>[+1,+5]</b>	<b>[+1,+10]</b>
<b>CAAR</b>	-1,95%	-0,11%	1,53%	2,31%	1,78%	0,58%	-0,58%
<b>J<sub>1</sub></b>	-0,64	-0,05	0,60	1,38	1,31	0,27	-0,19
<b>p-value</b>	0,52	0,96	0,55	0,17	0,19	0,79	0,85

Table 4 below presents the event study results for domestic and cross-border M&A transactions. The sample is split based on the geographic scope of the deal. On the left hand side of the table AARs and CAARs following domestic acquisitions are shown. AARs and CAARs following cross-border M&A transactions are shown on the right hand side of the table. Looking at the abnormal returns around the announcement date domestic M&A seem to lead to higher abnormal returns, as 3-day CAAR (-1, +1) is 3,14% following domestic M&A announcements, whereas 3-day CAAR following cross-border transactions is more moderate at 0,88%. However, both of these returns are

statistically insignificant. Similarly than for the whole sample, abnormal returns in days (-10) and (-7) are negative and statistically significant for domestic M&A transactions.

**Table 4.** Event study results for domestic and cross-border M&A.

Table reports average abnormal returns (AAR) and cumulative average abnormal returns (CAAR) for bidding banks following domestic and cross-border M&A. Domestic M&A N=11 cross-border M&A N=9. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

Domestic M&A				Cross-border M&A		
t	AAR	T-Stat for AAR	CAAR	AAR	T-Stat for AAR	CAAR
-10	-2,30%*	-1,669	-2,30%	-1,10%	-1,392	-1,10%
-9	2,12%	1,300	-0,18%	0,98%	1,100	-0,11%
-8	-0,09%	-0,405	-0,27%	-0,32%	-0,365	-0,43%
-7	-2,43%*	-1,797	-2,70%	-0,37%	-1,048	-0,80%
-6	0,44%	1,358	-2,26%	-0,53%	-0,813	-1,33%
-5	-0,37%	-1,021	-2,63%	0,48%	1,418	-0,85%
-4	0,16%	0,532	-2,47%	-2,14%	-1,089	-3,00%
-3	-1,20%	-1,056	-3,67%	0,20%	0,252	-2,80%
-2	1,17%	0,985	-2,50%	0,36%	0,901	-2,43%
-1	2,50%	1,226	0,00%	-1,90%	-0,767	-4,33%
0	0,58%	0,539	0,58%	0,88%	1,559	-3,45%
1	0,05%	0,253	0,64%	2,31%	0,938	-1,14%
2	-0,04%	-0,631	0,59%	-0,47%	-0,943	-1,60%
3	-1,96%	-1,563	-1,37%	0,65%	1,092	-0,95%
4	0,02%	0,039	-1,35%	0,22%	0,386	-0,74%
5	0,41%	0,391	-0,94%	0,43%	1,146	-0,30%
6	-0,50%	-1,540	-1,44%	0,25%	0,412	-0,06%
7	0,34%	0,694	-1,10%	-0,33%	-0,553	-0,39%
8	-1,95%*	-1,906	-3,05%	0,08%	0,050	-0,31%
9	-0,38%	-1,275	-3,43%	-0,42%	-1,222	-0,72%
10	0,50%	1,189	-2,94%	0,28%	0,478	-0,44%
[t1,t2]	CAAR	J <sub>1</sub>		[t1,t2]	CAAR	J <sub>1</sub>
[-10,-1]	0,00%	0,00		[-10,-1]	-4,33%	-0,936
[-5,-1]	2,26%	0,75		[-5,-1]	-3,00%	-0,916
[-3,+3]	1,10%	0,31		[-3,+3]	1,30%	0,255
[-1,+1]	3,14%	1,35		[-1,+1]	0,88%	0,604
[0,+1]	0,63%	0,33		[0,+1]	3,19%	1,542
[+1,+5]	-1,53%	-0,51		[+1,+5]	3,15%**	2,147
[+1,+10]	-3,52%	-0,83		[+1,+10]	3,01%	0,649

Looking at the post event window of (+1, +5) abnormal returns seems to be different for domestic and cross-border M&A. In specific CAAR (+1, +5) is -1,53% for domestic M&A and 3,15% for cross-border transactions. The latter bears statistical significance at 5% level, indicating that markets reward cross-border M&A transactions with delayed abnormal returns. Higher abnormal returns following cross-border M&A, indicates that in emerging Russian markets shareholders view entry to foreign banking markets as a

positive development. In general, CAARs seems to be positive within pre-event windows of (-10, +1) and (-5, +1), and negative within post-event windows of (+1, +5) and (+1, +10) for domestic M&A transactions. Abnormal returns following the cross-border transactions are opposite, as CAARs are negative during the same pre-event windows and positive during the same post-event windows. Nevertheless, the evidence for M&A value creation is a bit inconclusive for both domestic and cross-border M&A transactions, as CAARs for various pre- and post-event windows are statistically not different from zero with the exception of CAAR (+1, +5) for cross-border M&A.

Based on these findings hypothesis two that domestic M&A lead to higher abnormal returns cannot be accepted. Although, the abnormal returns following domestic M&A during the event window of (-1, +1) are higher than abnormal returns following cross-border M&A, these returns are not statistically different from zero. The results for value creation following domestic and cross-border M&A are mostly in line with the results of the entire sample, suggesting that bidding banks earn non-significant abnormal returns following M&A announcements.

Table 5 presents the event study results for state-owned and privately held banks. On the left hand side of the table AARs and CAARs following M&A by the state-owned banks are shown. AARs and CAARs following M&A transactions by privately owned banks are shown on the right hand side of the table. AAR at the announcement day is 1,08% for state-owned banks and -0,74% for privately owned banks. However, these returns are statistically insignificant. Similarly, than for the entire sample and AARs for days (-10) and (-7) are negative and statistically significant for state-owned banks.

Looking at the CAARs during the 3-day window around the M&A announcement, positive and statistically significant abnormal return of 6,45% is found for the subsample of privately owned banks. In contrast 3-day CAAR for state-owned banks is much moderate at 1,27% and statistically insignificant. In addition CAAR for the event window (-5, -1) is 7,44% and statistically significant at 10 percent level for the subsample of privately owned banks. Looking at the CAARs for the whole 21-day event window CAAR for the state-owned banks is -3,60%, whereas CAAR for the privately owned banks is 5,34%. However, CAARs for the 21-day event window are statistically insignificant. These results suggest that M&A by privately owned Russian banks creates value for shareholders of the bidding banks. However, the sample size for M&A for the privately owned banks is relatively small at four events. Because of the small sample size these results should be treated with caution.

Based on the evidence presented in table 5 hypothesis three that state ownership has a positive impact on post acquisition performance cannot be accepted. As a matter of fact, the situation seems to be the exact opposite, as abnormal returns are higher and statistically significant for private ownership subsample. Findings on the positive relation between private ownership and post acquisition performance are opposite with the findings of Du & Boateng (2014) who find that state ownership has a positive impact on the post acquisition performance in China. Findings of the non-significant

Altogether, my event study findings on the abnormal returns for the bidding banks are mostly in line with the previous research of Beltratti & Paladino (2013) and Kyriazopoulos & Drymbetas (2015), as bidding banks seems to earn non-significant abnormal returns. Bit surprisingly and opposite of hypothesis one abnormal returns around announcement date are mostly positive for bidding banks. However, without a few exceptions these returns are statistically insignificant. Most interesting findings of the event study are positive and statistically significant abnormal returns following cross-border M&A within the event window (+1, +5) and the positive and significant abnormal returns for privately owned banks within event windows (-5, -1) and (-1, +1).

**Table 5.** Event study result for state-owned and privately held banks.

Table reports average abnormal returns (AAR) and cumulative average abnormal returns (CAAR) for bidding banks following M&A. State-owned N=16 privately held N=4. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

State-owned				Privately held		
t	AAR	T-Stat for AAR	CAAR	AAR	T-Stat for AAR	CAAR
-10	-2,22%*	-1,94	-2,22%	0,07%	0,60	0,07%
-9	1,63%	1,20	-0,59%	1,54%	1,66	1,62%
-8	-0,15%	-0,30	-0,74%	-0,36%	-0,67	1,26%
-7	-1,85%*	-1,70	-2,59%	-0,13%	-0,46	1,13%
-6	-0,07%	-0,15	-2,65%	0,29%	0,65	1,41%
-5	0,32%	1,45	-2,34%	-1,20%	-1,31	0,21%
-4	-1,29%	-1,14	-3,63%	0,77%	0,98	0,99%
-3	-0,88%	-0,91	-4,51%**	0,67%	0,68	1,65%
-2	1,03%	1,09	-3,48%	-0,08%	-0,28	1,58%
-1	-1,17%	-0,83	-4,65%**	7,28%	1,31	8,85%**
0	1,08%	1,30	-3,57%	-0,74%	-0,74	8,11%**
1	1,36%	0,96	-2,21%	-0,09%	-0,16	8,03%**
2	-0,33%	-1,17	-2,54%	0,16%***	2,84	8,19%**
3	-0,24%	-0,28	-2,78%	-2,99%	-1,19	5,20%
4	-0,07%	-0,19	-2,84%	0,80%	0,72	6,00%
5	0,48%	0,58	-2,36%	0,16%	0,67	6,17%
6	0,07%	0,19	-2,29%	-1,08%	-1,23	5,08%
7	-0,01%*	-0,03	-2,31%	0,24%	0,26	5,32%
8	-1,19%	-0,98	-3,49%	-0,43%	-0,54	4,89%
9	-0,62%**	-2,31	-4,11%*	0,48%*	1,87	5,38%
10	0,51%	1,15	-3,60%	-0,03%	-0,07	5,34%
[t1,t2]	CAAR	J <sub>1</sub>	[t1,t2]	CAAR	J <sub>1</sub>	
[-10,-1]	-4,65%	0,17	[-10,-1]	8,85%	1,48	
[-5,-1]	-1,99%	0,41	[-5,-1]	7,44%*	1,75	
[-3,+3]	0,85%	0,83	[-3,+3]	4,22%	0,84	
[-1,+1]	1,27%	0,49	[-1,+1]	6,45%*	1,96	
[0,+1]	2,44%	0,11	[0,+1]	-0,83%	-0,31	
[+1,+5]	1,21%	0,61	[+1,+5]	-1,95%	-0,46	
[+1,+10]	-0,04%	0,99	[+1,+10]	-2,77%	-0,46	

## 6.2. Regression results

Next step in empirical analysis is the multivariate regression analysis. Basic OLS regressions are performed to investigate the relationship between ownership structure and post acquisition performance. Factors explaining M&A success are studied by including array of explanatory variables. Dependent variable in all regression is 3-day

CAR around the announcement date (-1, +1). CAR is chosen as a dependent variable because it is direct measure of shareholder value and investors future prospects. In addition, it is widely used in prior empirical research, and has established as a reliable indicator of performance for acquiring firm around M&A announcement (Brunner 2002; Beitel 2004). Relatively short event window should capture the immediate information content of M&A announcement, and reduce the changes that the returns are affect by other overlapping events.

Independent variables include different ownership structure variables and a set of control variables. Regression model is specified by equation eight. Autocorrelation is controlled by Durbin-Watson statistic and Lagrange multiplier tests, which show that the models are not suffering on autocorrelation problems. All in all, four models are estimated. Separate models are estimated because ownership structure variables are defined with different thresholds of ownership concentration, and estimating the model with all variables at same time would cause multicollinearity problems. Regression results are shown in table 6.

Regression result on the relationship between state ownership and post acquisition performance are in line with my event study results, as coefficient for state ownership is statistically insignificant. Based on the combined results from the event study and regression model four, hypothesis four that state ownership has a positive impact on post acquisition performance cannot be accepted. Finding of insignificant relationship between state ownership and post acquisition performance, is different from the findings of Du & Boateng (2014) who find that state ownership has positive impact on post acquisition performance. In light of these findings Chinese and Russian markets seem to be different.

Coefficient for variable INSIDE is positive and statistically significant in all models expect model 1. This finding illustrates that prior ownership of the target bank has positive impact on post acquisition performance. In light of these findings hypothesis five that owning a stake of the target prior M&A announcement increase post acquisition performance is accepted. This finding is in line with the previous findings of Ben-Amar & André (2006).

**Table 6.** Regression results.

Table reports estimates of equation (8). The dependent variable in all regression is CAR (-1; +1) of the bidders. Model (1) is the regression for the relationship between ownership concentration at 50 percent level and cumulative abnormal return, model (2) for the 70 percent level, model (3) for the 90 percent level and model (4) for the state ownership. Concentrated 50 is a dummy variable for concentrated ownership at 50 % threshold, Concentrated 70 is a dummy variable for concentrated ownership at 70 % threshold, Concentrated 90 is a dummy variable for concentrated ownership at 90 % threshold, State\_owned is a dummy variable for state ownership, Inside is a dummy variable taking a of one if bidding bank held a stake in target prior acquisition, Domestic is a dummy variable for domestic acquisitions, Crisis is a dummy variable for financial crisis, Size is the logarithm of total assets of the bidding bank, Capital is the logarithm of the capital ratio of the bidding bank determined as equity to assets ratio, Roe is the logarithm of return of equity ratio of the bidding bank. T-statistics are on parentheses. \*\*\*, \*\* and \* denote statistical significance at 1%, 5% and 10%, respectively.

	Model 1	Model 2	Model 3	Model 4
Dependent variable:	CAR [-1,+1]			
Constant	-0,093 (-0,273)	-0,240 (-0,819)	-0,075 (-0,220)	-0,069 (-0,186)
Concentrated 50	0,026 0,439			
Concentrated 70		-0,072 (-1,754)		
Concentrated 90			-0,027 (-0,547)	
State_owned				0,044 (0,703)
Inside	0,060 (1,612)	0,127** (2,805)	0,076* (2,081)	0,072* (2,038)
Domestic	-0,026 (-0,924)	-0,012 (-0,444)	-0,035 (-1,149)	-0,029 (-1,047)
Crisis	0,027 (0,681)	0,086* (2,053)	0,041 (1,173)	0,017 (0,293)
Size	-0,028* (-1,986)	-0,023** (-2,218)	-0,030* (-1,922)	-0,036 (-1,109)
Capital	0,236** (2,375)	0,270** (2,969)	0,256** (2,474)	0,288* (1,796)
Roe	0,014 (1,618)	0,015* (1,906)	0,016* (1,851)	0,015 (1,721)
Number of observations	20	20	20	20
R-Squared	0,580	0,660	0,584	0,578
F-statistic	2,366*	3,331**	2,402*	2,353*

Coefficient for domestic M&A transactions is negative and insignificant in all models, indicating that domestic M&A does not lead to better post acquisition performance than cross-border M&A. This finding is consistent with my event study findings on the profitability of domestic M&A. But surprisingly coefficient for dummy variable CRISIS is positive in all models. However, it is statistically significant only in model two. This finding provides weak evidence that abnormal returns are higher during financial crisis. In light of these findings hypothesis six that abnormal returns are lower during financial crisis cannot be accepted. Indeed abnormal returns seem to be higher during financial crisis. However, since the relationship is statistically significant only in model one I cannot conclude that abnormal returns are different during financial crisis.

Size of the acquiring bank seems to have a negative impact on post acquisition performance. Negative and statistically significant coefficients are found in all models except model 4. Finding of negative relation between the size of bidding banks and post acquisition performance is in line with the findings of Kyriazopoulos & Drymbetas (2015) who also find small negative impact between the size of the acquirer and post acquisition performance. Negative relationship between size and post acquisition performance is also related to Roll's (1986) hubris theory, as management in large companies may be more prone to suffer from hubris and overestimate the possible synergies arising from M&A transactions.

Regression results show also that capital ratio and return of equity of acquiring bank have a positive impact on post acquisition performance. Coefficient for capital ratio is positive and statistically significant in all of the estimated models. This finding indicates that market values transactions of highly capitalized banks. Statistically significant impact of return of equity is detected in models two and three. Positive relationship between ROE and post acquisition performance indicates that profitable banks make better acquisitions.

All in all, my regression results show that ownership structure does not have an impact on post acquisition performance, and that prior ownership of the target is positively associated with post acquisition performance. Large banks tend to make worse acquisitions. In addition, bank capitalization and profitability are positively related to post acquisition performance.

## 7. CONCLUSION

The purpose of this study is to investigate profitability of banking M&A in Russia and the relationship between ownership structure and post acquisition performance. More precisely, this thesis investigates whether ownership concentration, state ownership and prior ownership of the target have impact on post acquisition performance. Empirical approach of this thesis is two-staged, at first abnormal returns following M&A announcements are calculated using event study methodology, following that these returns are tested with OLS regressions to identify the factors explaining M&A success.

Previous research on the M&A success focuses mainly on measuring daily returns around the announcement date. General conclusion of the previous research is that abnormal returns following acquisition announcements date are zero or negative for acquirers and positive for targets (Spyrou & Siougle 2010; Campa & Hernando 2006). In addition, most of the previous banking studies find that bidding banks earn insignificant abnormal returns following M&A announcements (Beltratti & Paladino 2013; Kyriazopoulos & Drymbetas 2015). Since majority of previous studies have focused on U.S. and Western Europe markets, M&A research in emerging markets is still limited. This study aims to fill the research gap by focusing on developing Russian banking markets. This research is topical due to recent developments in the Russian banking sector. Moreover, the unique ownership structure of the Russian banks create interesting setting to study the impact of ownership concentration on post acquisition performance

A sample of 20 Russian banking M&A between the years 2005 and 2013 are studied. Six hypotheses are formulated to answer the research questions on the value creation of Russian banking M&A. As stated before, these six hypotheses are tested with event study and OLS regressions. Event study results for the whole sample are in line with the previous banking studies, indicating that bidding banks earn statistically insignificant returns around the announcement date. This finding indicates that M&A fails to create value for bidding banks in Russia.

One object of this study is to investigate whether geographical scope of the M&A transaction has an impact on post acquisition performance. For that reason, sample is split based on the geographic scope of the transaction. Comparing the abnormal returns between domestic and cross-border M&A, the results show that cross-border M&A lead to positive and statistically significant abnormal returns within event window (+1, +5).

This finding indicates that in developing Russian banking markets investors see entry to foreign banking markets as a positive development. Interesting results emerge when comparing the event study results between state-owned and privately held banks. CAAR for privately held banks within the event window (-1, +1) is 6,45% and bears statistical significance at 5% level. CAAR for state-owned banks is statistically insignificant. These results show that private ownership has positive impact on post acquisition performance. However, sample size for privately owned banks is relatively small, and therefore these results should be treated with caution.

The results from the cross-sectional regression analysis show that ownership concentration does not have an impact on post acquisition performance in Russian banking sector. All the ownership concentration variables fail to explain any variation in CAR. Similarly, state ownership does not have any impact on post acquisition performance. Prior ownership of the target is the only ownership structure variable that is found to have a positive impact on post acquisition performance. Finally, bank specific control variables seem to explain part of the variation in CAR. Size of the acquiring bank has negative impact on post acquisition performance. In contrast, capitalization and profitability of acquiring bank have positive impact on post acquisition performance.

The use of Russian data is causing limitations to the research. Although the sample period is relatively long from 2005 to 2016 there are only 20 M&A transactions matching the sample criteria. Due to the low amount of data, empirical results should be treated with caution. In addition, free floats are usually relatively small in Russian stock markets. Due to the low float, impact of M&A announcements may be only partially reflected on the stock prices. Considering the relatively small amount of M&A by publicly traded banks in Russia, further research could focus on changes in accounting measures following M&A. For example, further research could study the effect of M&A on bank lending and operational cash flows.

In conclusion, I find that ownership structures explain only a small part of the post acquisition performance in Russian banking sector. Moreover, I find that cross-border transactions and acquisitions of privately held banks are associated with positive and statistically significant abnormal returns. Finally, bank specific variables explain part of the variation in cumulative abnormal returns.

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**APPENDIX 1.** Summary of transactions.

<b>Date Announced</b>	<b>Acquiror Name</b>	<b>Target Name</b>	<b>% of shares acquired</b>	<b>% of shares owned after transaction</b>
29/08/05	Sberbank Rossii	JSC BKI Infokredit	50,00	50,00
24/07/06	Sberbank Rossii	Texakabank JSC	80,00	80,00
27/12/06	Sberbank Rossii	Texakabank JSC	20,00	100,00
09/12/08	Bank VTB	AF Bank	51,00	51,00
10/12/09	Sberbank Rossii	BPS Bank	93,27	93,27
16/12/09	Bank VTB	AKB Rosbank	19,28	19,28
18/02/10	AKB Rosbank	Rusfinans Bank	100,00	100,00
05/07/10	Bank VTB	TransKreditBank	43,20	43,20
24/11/10	Bank VTB	AKB Bank Moskvyy	46,48	46,48
11/01/11	Bank Sankt-Petersburg	AKB Zarech'e	20,06	20,06
28/04/11	Bank VTB	TransKreditBank	29,39	72,89
31/08/11	Sberbank Rossii	VBI	100,00	100,00
20/10/11	URALSIB	KB BNP Pariba Vostok-Retail Io	100,00	100,00
23/12/11	Sberbank Rossii	SLB Commercial Bank AG	99,15	99,15
14/02/12	Bank VTB	TransCreditBank	12,76	77,79
04/05/12	Sberbank Rossii	KB BNP Pariba Vostok	70,00	70,00
08/06/12	Sberbank Rossii	Denizbank AS	99,85	99,85
16/05/13	Bank VTB	Bank Moskvyy Belgrad	100,00	100,00
23/12/13	URALSIB	Bashprombank	49,99	99,99
26/12/13	Bank Sankt-Petersburg	IKB YEVIROPEYSKIY	100,00	100,00