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Master in Management Program

**THE INFLUENCE OF MERGERS AND ACQUISITIONS ON
BANK PROFITABILITY**

Master's Thesis by the 2nd year student

Concentration – International Business. Pashkov Mikhail.

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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

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АННОТАЦИЯ

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Описание цели, задач и основных результатов	<p>Целью исследования является оценка влияния сделок слияний и поглощений на прибыльность банковского бизнеса. В контексте цели текущего исследования были сформулированы задачи:</p> <p>охарактеризовать текущее состояние банковской индустрии в России; выявить ключевые ограничения существующей литературы по данной теме; проанализировать, какие основные факторы влияют на финансовые результаты банка после слияния или поглощения; разработать рекомендации для российских банков по улучшению своих финансовых результатов в контексте сделок по слияниям и поглощениям. В исследовании были рассмотрены такие подходы, как анализ финансовой отчетности, опросы менеджеров, анализ конкретных сделок (метод ситуационного анализа) и метод избыточной доходности, а также основные экономические теории, такие как теория синергии и теория стратегического сходства. В исследовании использовались вторичные данные из опубликованных аудированных годовых отчетов банков. Описательная статистика, регрессионный анализ и критерий Уилкоксона использовались для анализа данных с уровнем значимости 5%. Выборка включает в себя 103 сделки по слияниям и поглощениям банков в период с 2009 по 2015 год с окном анализа в два года. Исследование показало, что слияния и поглощения между банками в России приводят к статистически значимым позитивным влияниям на их финансовые показатели.</p>
Ключевые слова	Слияния, Поглощения, Банки, Анализ финансовой отчетности, Влияние сделок на финансовые результаты, Эффект синергии, Теория стратегического сходства

ABSTRACT

Master Student's Name	Pashkov Mikhail Dmitryevich
Master Thesis Title	The influence of mergers and acquisitions on bank profitability
Educational Program	Master in Management
Main field of study	International Business
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Academic Advisor's Name	Candidate of Economics, Tatiana A. Pustovalova
Description of the goal, tasks and main results	The goal of the study is the evaluation of the M&A deals impact on bank profitability. The study will be guided by the following objectives: to identify key characteristic of current banking sector in Russia; to identify key limitations of current existing literature on the topic; to analyze what are the main factors affecting post merger bank financial performance; to develop recommendations how Russian banks which fall into the M&A deals could improve their post merger performance results. In the study such approaches as case study, event study, surveys of managers, and analysis of financial statements were observed in the literature review, as well as basic economic theories, such as the synergy theory and the theory of strategic similarities. The study used secondary data from published audited annual reports of banks. Descriptive statistics, regression analysis and Wilcoxon sum rank tests were used to analyze data at 5% significance level. The sample includes 103 bank M&A deals from 2009 to 2015 with 2 years event window in Russia. The study discovered that the mergers and acquisitions lead to statistically significant positive influence bank financial performance in Russia.
Keywords	Mergers, Acquisitions, Banks, Analysis of financial statements, M&A's impact on financial performance, Synergy effect, The theory of strategic similarities

Table of contents

1. Introduction	6
2. Literature review.....	12
2.1 The overview of basic approaches for M&A impact evaluation	12
2.2 Cost and profit influence valuation through accounting data	15
2.3 The valuation of M&A influence using the Event studies.....	19
2.3.1 Residual Income Approach	19
2.4 The M&A influence valuation using the Case Studies	22
2.5 The M&A influence valuation using the Interview approach	24
2.6 The Concept of Strategic Similarities	25
2.7 The synergy theory	26
Summary	28
3. The methodology of the study	30
3.1 Theoretical framework.....	30
3.2 Hypothesis development.....	32
3.3 Methodology and data development.....	40
3.4 Data description	43
3.5 Industry average parameters	48
Summary	48
4. Empirical results	49
Summary	56
5. Discussions and conclusion	58
5.1 Discussion of empirical findings	58
5.2 Managerial implications	62
5.3 Limitations and further researches	64
The list of references	65
Appendix 1: the sample for the empirical part	71

1. Introduction

Banking industry in Russia had a huge period of rocketed grow in the modern history of Russia from 2000 to 2014 in terms of annual assets growth with compound annual growth rate around 30% (Central Bank 2017). Unfortunately, that record growth was interrupted by significant downturn in 2015 and 2016 mainly due to the shock effect of Russian economy caused by oil price downturn and imposition of sanctions from the Western countries as the response to Ukrainian problem of 2014 and Russian annexation of Crimea. One of the most important sanction was the prohibition of receiving financing from Western partners for many companies, essentially for many banks as well. In these crisis years the bank total assets significantly decreased by 3,5% to a little bit more than RUB 80tn in 2016, which was the first industry fall down since to 2000. The level of total deposits and loans narrowed as well, however borrowers could save their profits (in some cases even increased it) due to declining the loan loss reserves.

The Russian banking sector had a restrictive stance towards foreign entries until August 2012, when Russia became a member of the World Trade Organization (WTO). The provision of financial services has been one of the most disputed areas in the negotiation process and eventually, under the terms of the accession agreement, Russia had to lower the barriers to entry for foreign banks. Even though they allowed foreign insurers to set up branches and foreign banks to establish subsidiaries in Russia, the new regulations alone were not sufficient to attract global banks in the short and medium term. The conflict with Ukraine forced Russia to adopt retaliatory protectionist measures to reduce foreign involvement in the sector. In 2014, the government reintroduced a 50% quota on foreign capital in Russian banks.

The banking sector is very fragmented at the bottom, with numerous small lenders that often operate within a single city, acting as treasury accounts for local businesses. That creates opportunities for future consolidation in the sector, especially for large state-owned banks, which are likely to grow their retail and corporate market shares. Recent bank closures, illustrated in the table 1, have made savers more cautious and might result in a transfer of deposits to larger, safer state-owned banks, especially those deemed by the state to be systematically important institutions.

Table 1: recent bank closures

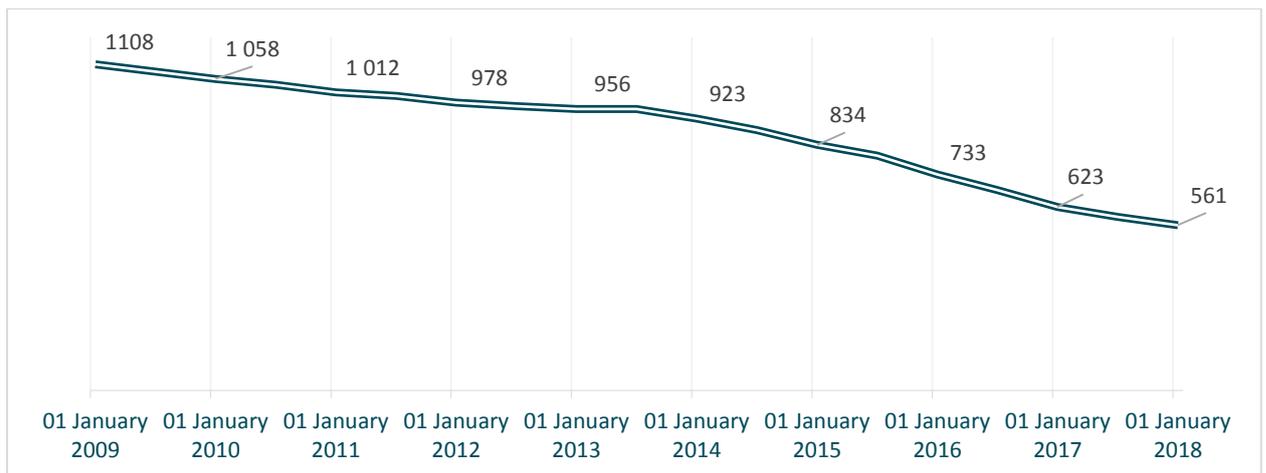
Reason	2012	2013	2014	2015	2016	2017	2018
Revoking a license	23	32	87	93	97	40	20
Liquidation	7	12	0	0	0	0	0
Total	30	44	87	93	97	40	20

Source: Author's compilation of secondary data (Banki.ru 2017)

The high share of state ownership in the sector, however, hampers the competitiveness and reduces the growth potential, according to the EIU (EIU 2016).

The Russian banking industry is heavily regulated by the government, which has a dominant position in the sector. In June 2011 there was a large bail-out of Russia's fifth largest bank – Bank Moskv – which indicated the weakness of the banking supervision. Even though improvements were made, problems with banking regulation and oversight remain. One obstacle to effective supervision is the existence of too many small banks, due to which banks continue to be poorly audited and remain non-transparent in their ownership structure and operations.

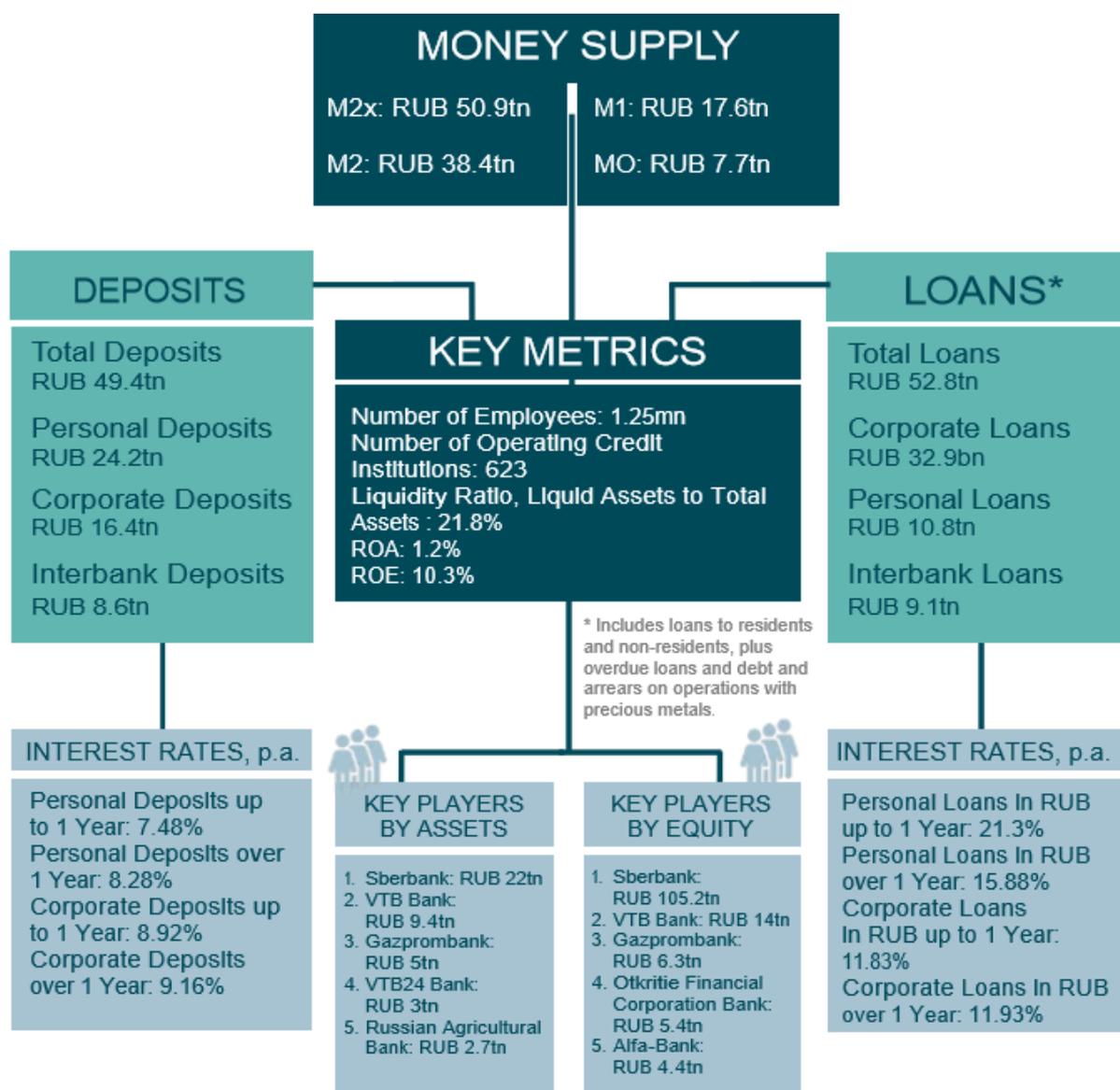
In 2000-2004 Russia had about 1400 banks (Central Bank 2018). However, this number began to decrease from that period of time, the most rapid decline has happened after 2013 when there was a significant shift in the Russian banking system (the head of Central Bank was changed). There are only 561 banks that exist in Russia today (Central Bank 2018), the purpose of a decreasing trend nowadays is the strict Central Bank policy connected with revoking licenses. The number of Russian banks dynamic is shown on the graph 1.



Graph 1: The dynamic of number of Russian banks

Source: Author's compilation of secondary data (Central Bank 2018)

Russian banking sector in order to be overviewed was described with key basic metrics by the end of 2016 utilizing the mind map tool, illustrated on the Graph 2.



Graph 2: the key Russian bank industry metrics

Source: A Euromoney Institutional Investor Company (A Euromoney Institutional Investor Company 2017)

During periods of economic downturn, most banks have limited long-term resources. To speed up the attraction of funds to accounts, to maintain and increase the volume of operations and continue to compete successfully in the market, banks are forced to make changes in their activities. Banking institutions take various measures to mitigate risks during a crisis, improve their financial position and restore client confidence. One of the most effective measures is mergers and acquisitions. The consolidation procedure allows banks to obtain a synergistic effect from the merger: increase the level of capitalization, significantly increase the client base and, accordingly, the geography of the presence, attract financial resources, and thus strengthen the market position, improve competitiveness and sustainability.

The decisive role in the consolidation of assets began to be provided by the economic policy of the Central Bank of Russia. The law "About Banks and Banking Activities" was amended, in which the Bank of Russia established high requirements for capital adequacy and minimum equity of the bank.

As a result of the implementation new standards, a wave of mass liquidation of small and medium-sized banks began, which turned into an object of sale. A number of banking organizations required additional capitalization, in the absence of own free funds of bank owners, the possible options were consolidation in the form of a merger or acquisition, or revocation of a license.

Under the pressure of regulatory measures on the part of the Central Bank, credit institutions with a low capital base are forced to join larger banks to strengthen the concentration of bank capital¹.

With the onset of the new large-scale crisis of 2014, the situation of Russian banks deteriorated significantly, which was due to the sharp devaluation of the ruble, the unfavorable external economic and foreign policy situation, deteriorating solvency and quality of loan portfolios. Foreign investors began to reduce their presence in Russia due to significant risks.

As a result of the impact of the crises, Santander Consumer Finance, Barclays, Straumborg, Societe Generale, WestLB, KBC Group, GE Money, DNB Group, DFE, ICICI Bank, Royal Bank of Scotland sold its Russian banking units (Banki.ru 2017).

Most of all, the situation was influenced by US and EU sanctions that hit the banking sector and cut off key Russian banks from long-term financing, and in some cases even from settlements in foreign currency.

As a result, medium and small credit institutions, which were lent to state banks, also suffered. The current situation entailed an intensification of the consolidation of banks in Russia.

To sum up, the reasons why this topics is interesting could be described the next way:

- Relatively deep and wide process of new Central Bank policy influenced and pushed banks in the process of M&A deals through tighter control;

¹ The most significant transaction was in 2013 to integrate banking business was the transaction of the Financial Corporation Otkrytie, which absorbed Nomos-Bank with its subsidiaries Nomos-Regionbank and Nomos-Bank-Siberia, as well as a controlling stake in Khanty -Mansiysky Bank, and then acquisition of the bank" Petrocommerce"

- New financial reality which has been created since 2014 after the sanctions implementation and as a result restriction on external financing and internal new economic environments pushed banks into looking new opportunities first of all on local market, including M&A opportunities;
- The approaches which have not yet been checked still with fast growing banking sector despite shocking conditions.

Research **gap**, in my opinion, lies in the fact that there is the lack in M&A influence model in financial statement analysis approach that could include all factors, considering strategic similarities variable, that affect bank profitability in the context of Russian banking industry.

However, world-known studies use that approach to examine the dependencies between both M&A deal, local and cross-boarders M&As, and bank profitability. The world known practice shows that different approaches give different results and interpretation of these methods could give new practical implications for Russian bank managers as well as for organizers and appraisers of M&A deals. Today the needs of new approaches are extremely high according to the level of bank consolidation in Russia and further government policy of extermination little local banks and affiliation them to larger banking groups.

The main reason for that could lie in the comparative difficulty for data gathering and data interpretation. Moreover, usually scientific researchers have a tendency for comparison their result with results of other researchers, who examined similar problem, but in another geography, or with another sample, or study the other period. The most convenient and precise approach for that, according to literature review analysis, is the Event Studies method that examines the impact of the M&A deal from the position of the company's shareholders, calculating the accumulated excess cumulative yield.

Research field is lying in banking sphere in Russia, while research problem can be formulated as development and formulation of a methodology for managing and estimation merger and acquisition deals, including the profitability of a bank after the finishing integration with acquired bank.

In order to cover that gap the next provided **research questions** were formulated:

- What correlation exists between bank mergers and acquisitions and bank profitability in Russia?
- Does strategic similarities of banks influence the bank profitability changes due to M&A deals?

- Is there differences in profitability between bidder bank and target bank?

Utilizing the gap of the current research and formulated research questions, the **goal** of the current study was formulated as the evaluation of the M&A deals impact on bank profitability.

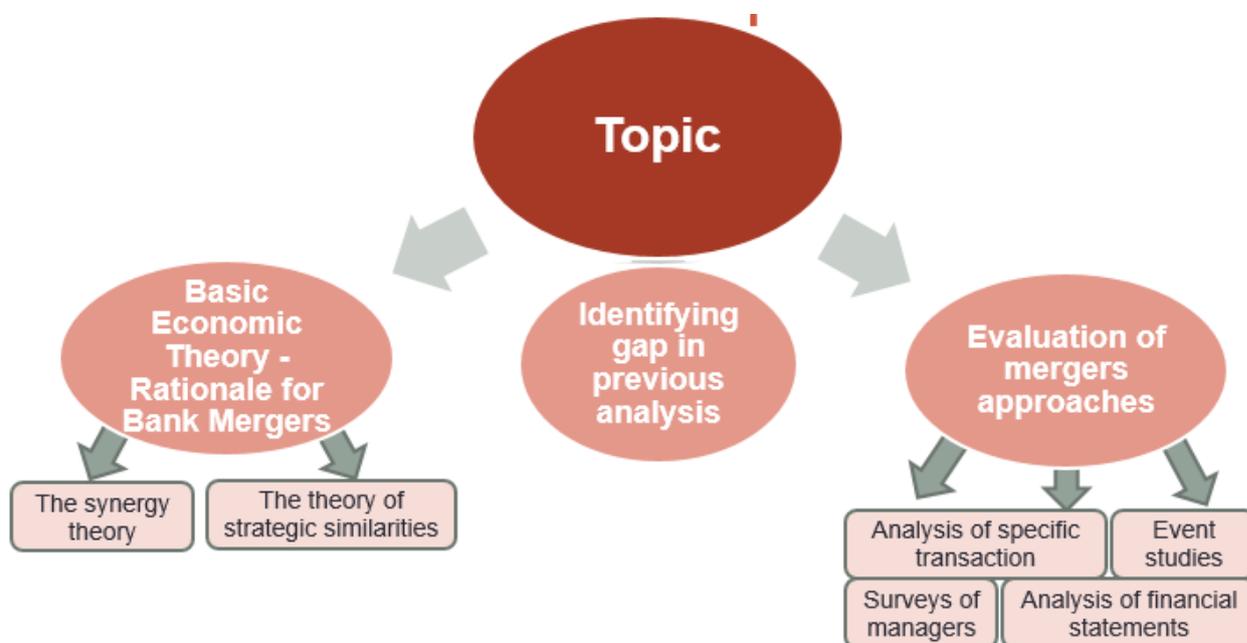
The next objectives were determined in order to achieve the goal of the current study:

- To identify key characteristic of current banking sector in Russia;
- To identify key limitations of current existing literature on the topic;
- To analyze what are the main factors affecting post merger bank financial performance;
- To develop recommendations how Russian banks which fall into the M&A deals could improve their post merger performance results.

2. Literature review

2.1 The overview of basic approaches for M&A impact evaluation

In order to structure the theoretical background, the mind map was created and illustrated on the graph 3 below.



Graph 3: Mind map of theoretical background

Source: Author's compilation

A merger is the combination of at least two organizations, for the most part by offering the investors of one-organization shares of the acquired company in the return for shares of another company. The rationale for bank merger lies - is that two merged organizations are significantly more valuable comparing with the case of evaluating them separately since two companies incline shareholder's value more than individually. That is why Moctar and Xiaofang (2014) define merger as the combination of two or more organizations into one larger organization. Coase (1937) in his book "The Nature of the Firm," clarifies that companies exist since they are able to reduce transaction costs that appear during the process of exchange and production, thus grabbing the effectiveness, which individuals cannot capture. In many cases, organizations will fall into M&A process in order to create new organization to become a more effective in terms of cost/revenue organization.

Hence, the essential purposes for bank merger relate to

- 1) Economies of scale;
- 2) Geography expansion;

- 3) Capital size incline;
- 4) Extra product offerings;
- 5) Incline of market power.

Pilloff insists that cost decreases can happen by excluding excess labor force, shutting bank back-offices with overlaps and uniting bank offices operational functions. Cost reduction of the non-interest expenses can bring up to 30% cost reduction after M&A, which include some operational overlaps. Income enlargement can also happen, however with originate from overlapping banking services as well as from market expansion and attracting new clients. The idea of such collaborations infers that M&A benefit investors in the case when organization's post-merger capitalization (sum of shares multiplied the price) inclines by the value of the synergy effect (Pilloff, 1996).

As Larionova (2005) notes in the book *Reorganization of commercial banks*, the market of bank M&A as a specific commodity arises from the inability of individual banks to continue their business or the needs of individual banks to achieve certain qualitative and quantitative characteristics, for example, a higher level of capitalization, image, profitability, liquidity, acquisition of a market share or any other parameters ... mergers and acquisitions, privatization in the banking sector call for a valuation of the bank.

Bruner (2002) in his article “DoesM&APay?” and also Fedorova E.A. and Rybalkin P. I. (2016) identified four ways to evaluate M&A transactions which were described in the table 2 below:

Table 2: Four way to evaluate M&A deals, their overview, limitations and examples of use

Method	Characteristic	Possible limitations	Example of work
Analysis of financial statements	In this method, the purpose is to calculate and analyze the financial performance of the company before and after the transaction and compare it with the performance of similar companies from the same industry that did not participate in the transactions for the period under study. As financial indicators, the return on assets, equity, as well as the return on equity, etc	Data uses could be incomplete, specially distorted in the personal interests of the owners or not comparable for different companies (for example, companies in different countries may publish reports in accordance with different standards)	Berger and Humphrey (1992)
			De Young (1993)
			Aminu Diyo Sheidu (2015)
			Dr. Jagongo (2017)
			Srinivasan (1992) and Srinivasan and Wall (1992)
			Daniya Adeiza Abdulazeez (2016)
			Barber and Lyon (1996)
			Girma, S., Thompson, S., Wright, P. W. (2011)

Surveys of managers	In this method, a survey of managers of large companies that have made transactions in the past is conducted. The respondents are asked to answer a number of questions. The answers are summarized and analyzed.	Very low percentage of penetration of the interview in the industry in terms of participation and accordingly their results are not always correctly generalized; Based data contains subjective opinions	M. Hitt, D. Vaidyanath, V. Pisano (2004)
			J.T. Leverty, Y. Qian (2010)
			Joash and Njangiru (2015)
Analysis of specific transactions	Each work deals with the transaction separately, while analyzing in detail the organizational and financial structure of the company before and after the merger. In this method, as well as in the previous one, surveys of shareholders, management and employees could be used	Too little sample to conclude about the hole industry, however can be used in countries with monopolized market	R. Bruner (2004)
			Linder and Crane (1992)
			Kemal (2011)
Event Studies	The method examines the effectiveness of the transaction from the position of the company's shareholders, calculating the accumulated excess cumulative yield (CAR). This yield is calculated as the difference between the daily average market return of the index and the daily normal return. The daily results obtained are summarized. This technique is used on different "windows" of observation	Not all companies are traded on the stock exchange market, however could be overcome with markets where public banks cover the most significant part of the market ; contains an assumption about the effective functioning of the stock market; the method is vulnerable to other events affecting the value of shares	A. Wong, Kui Yin Cheung (2009)
			H. Sharur (2005)
			Z.I. Khusainov (2008)
			I.V. Ivashkovskaya, S.A. Shamraeva, E.E. Grigoriadi (2009)
			Degenhard (2007)
			Bild and Runsten (2010)
			Fedorova E.A. and Rybalkin P. I. (2016)
			MacKinlay (1997)
			Das A., Kapil S (2012)
Fama, Fisher, Jensen, Roll (1969)			
Kimberly M., Phyllis K (2014)			

Source: Author's compilation based on literature review

2.2 Cost and profit influence valuation through accounting data

The huge number of researchers studied the influence of M&A deals on cost reduction utilizing accounting data. Most of the researchers, since the world economic specific and history, are based on data of banks (accounting data) located in USA or Europe. The most significant number of such studies appeared in the period of 70's-90's, in the years of thousands M&A between banks and industry consolidation in general. Modern researches are more focused on developing countries, which are located in Asia region and MEA regions (Middle East and Africa). However, in the core of their studies still lie theories, formulated by developed countries.

As an example, Berger and Humphrey (1992) utilized panel data, consisted of 57 M&A deals happening in the period of 80's (1981-1989). Researchers utilized multiple regressions models in order to reason that bank efficiency in terms of cost and profit relationship, in general, does not improve after the M&A deal, while some M&A's enhanced financial performance, others did not. Berger and Humphre found just around a 5% average improvement in cost and profit relationship improvement, but that improvement was not statistically significant.

Their research also included the analysis of:

- return on asset ratios
- total costs to asset ratios

Berger and Humphrey examined that, on average, there were no value added effect for the merged company.

De Young (1993), who also examined the M&A deals, total counted 348 (approximately 31% of M&A deals included into the analysis were failed, 43% included banks affiliated within the same bank holding company), in the same period (since 1987 to 1988) explained aforementioned results utilizing the t-test and multiple regression as well. The researcher explained such effects by the foundation that while M&A deals inclined bank efficiency in terms of cost and profit relationship, two banks (the target company and the M&A initiator) underperformed on average, and financial improvements could not be achieved from the M&A deal. Efficiency was assessed in terms of total expenses to total assets. Cost efficiency was measured for 1 year before the M&A deal and the 4 years after.

However, it is vital to investigate the methods utilized in the previously mentioned examinations. The downside of cost ratios is not counting the input prices and output mix. Besides, the income impacts of mergers did not investigated and as aggregate income most likely transformed in the post-merger period, simple analysis of bank efficiency in terms of cost and

profit relationship gives an inadequate picture of post-merged bank's financial performance. Cost effectiveness examination, which implies income as constant, is not able to provide the full picture of influence of bank performance with some exceptions (unusual cases) when income statements truly stayed constant or changed insignificantly.

The professor of Bayero University, Abdulazeez (2016) is the example of researchers who tried to improve before mentioned model in his studying. The general target of that examination was to inspect the effect of mergers and acquisitions on the bank performance of chosen banks in Nigerian in the period from 2002 to 2008. His final sample included 24 mergers and acquisitions of 4 national banks. This paper utilized Returns on Asset (ROA) and Return on Equity (ROE) of the chosen banks as indicators of bank performance with convenience techniques (t-tests and descriptive statistics) based on secondary data, recovered from the yearly reports and records of the consolidated banks. Abdulazeez found that banks fell into M&A process had a positive effect on financial efficiency of both banks (the buyer and acquired company).

There are wide ranges of approaches to identify an organization's financial performance. This might lead to changes in vary of financial measurements such as ROA, ROI, value added and is a subjective measure of how an organization utilize available assets from getting relevant income.

Barber and Lyon (1996) offered to utilize CF (cash flow) measurement of financial performance as the alternative of measurements of accounting data such as return on book value of equity or assets, for researching the influence of M&A on bank financial performance. Moreover, authors of study suggested that operational marginality defined as cash flows/net sales can be utilized in order to identify the changes in financial performance. CF were determined as earnings before interest, taxes, depreciation and amortization.

An investigation by Girma et al (2011) showed that there was an incline from £300 to £400 on average in operational profit per one employee of the organizations fell into M&A process in three-four years after M&A deal, an outcome that is strong to the sort of utilized estimator. They researched that effect assist by breaking the M&A's impact into related and unrelated deals. These outcomes demonstrate that although two types of determined deal had the impact on financial performance, the result of this influence could vary from deal to deal. The point gauges are higher and the effect on money related execution is all the more quickly felt if a firm gains an objective in a similar industry division. In view of these looks into in this manner, we can gather that mergers and procurement would emphatically affect money related execution of an association

Professor Aminu Diyo Sheidu (2015) in 2015 studied the nature of relationship that existed between M&A and Net Profit Margins of the banks following M&A's. His hypothesis included the assumption that there is no positive relationship between bank mergers and Net Profit Margins. Sheidu tested his hypothesis using data extracted from the financial reports of the banks three years before mergers (2002 - 2004) and three years after mergers (2006 – 2008). The researcher has used the trend analysis and Chow tests, which were used to verify the stability of the parameters of the regression model, the presence of structural shifts in the sample. In fact, the test verifies the heterogeneity of the sample in the context of the regression model. T-tests were also performed on the Net Profit Margins. The pattern examination proposed the presence of positive connection between bank M&A and NPM. In any case, discoveries from Chow test and t-statistic both recommended that M&As don't improve bank NPM. Additionally, the outcomes demonstrated that the standalone banks out-performed the blended banks in this regard after mergers.

Dr. Jagongo (2017) examined the impacts of mergers and acquisitions on bank performance in Kenya. This examination set to build up whether the numerous mergers and acquisitions that have occurred in Kenya's have affected exactly financial results of banks. The particular targets of the examination was to discover the impact on synergy, differential effectiveness, risk diversification and the overall industry of bank businesses in Kenya. Descriptive research was utilized to examine the impact of M&A on a particular bank performance. The examination was based on three theories:

- differential efficiency theory;
- financial synergy theory;
- hubris theory²³.

The number of banks included in the examination was nine national banks that have consolidated or gained in the period 2010 to May 2017 in Kenya. That sample included 3 mergers and 6 acquisitions. The examination was gathered utilizing surveys to gather primary data. The examination also utilized secondary data from reviewed annual reports of banks which included the second and third forms (income statements and cash flow statements) over the period. The used period was determined as 5 years before and after the merger or acquisition (-5; +5). The data was utilized to compute and dissect the ROA, ROE and C/I from the income statements and reports for the consolidated banks for the period under the examination.

² The theory of managerial hubris (Roll, 1986) suggests that managers may have good intentions in increasing their firm's value but, being over-confident; they over-estimate their abilities to create synergies. The Hubris theory constitutes a psychological based approach to explain M&As.

³ Roll, R. (1986), "The hubris hypothesis of corporate takeovers," *Journal of Business* 59,197-216

Information gathered was absolutely quantitative and it was examined by descriptive statistics. The clear factual instruments, for example, Statistical Package for Social Sciences (SPSS) and MS Excel was utilized to separate frequencies, rates, means and other. A various relapse investigation was led to demonstrate the quality of the connection between the factors.

The examination built up that operational synergy effect, differential effectiveness, risk diversification and market share development after mergers and acquisitions have affected the bank business in Kenya in terms of financial results. The factors clarified 98.2% of the regression model. A unit change in the operational synergy prompted a 0.755 incline in terms of financial results of the particular bank. A unit change in differential effectiveness prompted a 0.886 in terms of financial results of the particular bank, a unit change in risk diversification has led to a 0.885 incline in in terms of financial results of the particular banks while a unit change in market share improved financial results in 0.959 increase. The examination suggests that organizations before M&A should lead exhaustive hazard analysis and evaluate potential partners properly.

Content analysis was utilized to check the data in order to determine that is qualitative in nature or aspect of the data collected from the open ended questions. Moreover, the researcher used a multiple regression analysis described by the equation 1:

Equation 1: multiple regression model utilized by Dr. Jagongo

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$$

Where:

Y = financial performance determined in terms of ROE, ROA and C/I of particular banks in Kenya

β_0 - intercept coefficient

ϵ_i – error term (extraneous variables)

X1 – operating synergy on mergers and acquisitions

X2 – differential efficiency on mergers and acquisitions

X3 – risk diversification on mergers and acquisitions

X4 – market share on mergers and acquisitions

β_1 , β_2 , and β_3 = coefficients used for regression model

2.3 The valuation of M&A influence using the Event studies

Event Study is the most all around loved strategy and technique embraced by scientists. This methodology appeared in 1930s. A detailed description of this methodology which lies in the core of researchers studies in the previous century and still is up to date event studies has been provided by MacKinlay (1997). First of all, the normal returns for the particular organization are determined in relation to the market share and utilized in a regression model:

Equation 2: multiple regression model utilized by MacKinlay

$$R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it}$$

Where:

R_{it} is expected return on the company

R_{mt} is return on the market portfolio

α_i is intercept term

β_i is sensitivity of the return on the company to market returns

ϵ_{it} is zero mean disturbance term

Degenhard, (2007) considered 87 different articles on M&A performance written by top managers of companies located all over the world and worked in different industries and by researcher published their results in Financial Journal. Degenhard built up that around 50% used event study method in short time interval, while approximately 15% utilized event study method in long time interval.

2.3.1 Residual Income Approach

The foundation of Bild and Runsten (2010) that both approaches, the accounting returns approach and the event study approach, have restrictions that created difficulties in determination of the fundamental value of M&A transaction or deal. The researchers created other method that is similar to Economic Value Added approach. Bild and Runsten called this approach as the residual income approach, wherein they differentiated the true fundamental value of buyers before

the acquisition with the simple post - acquisition fundamental value. The true fundamental value before the M&A deal was defined as:

Equation 3: The true fundamental value before the M&A deal utilized by Bild and Runsten (2010)

$$V_{pre} = \frac{E_{-1}(DPS_0)}{(1+r_e)} + \frac{E_{-1}(BPS_0)}{(1+r_e)} + \frac{E_{-1}(EPS_1 - r_e \cdot BPS_0)}{(1+r_e)^2} + \frac{E_{-1}(EPS_2 - r_e \cdot BPS_1)}{(1+r_e)^3} + \frac{E_{-1}(EPS_3 - r_e \cdot BPS_2)}{(1+r_e)^3 r_e}$$

Where:

V_{pre} - Value of buyer before M&A;

$E_{-1}(DPS_{0,1,2})$ - Expectation of dividend per share in the year when M&A happened, one year following M&A deal and two years following the same deal;

$E_{-1}(BPS_{0,1,2})$ – Expectation of book value per share in the year when M&A happened, one year following M&A deal and two years following the same deal;

r_e – Cost of Equity.

It needs to underline that:

- the first term in the formula is the expectations of dividend per share in the year of M&A deal;
- the second term in the formula is the expectations of book-value per share in the year of M&A deal;
- the third and fourth terms in the formula define the expectations of residual income in the first and second years after the M&A deal;
- the fifth term in the formula defines the expectations of terminal value.

The true fundamental value after the M&A deal was determined as:

Equation 4: The true fundamental value after the M&A deal utilized by Bild and Runsten (2010)

$$V_{post} = \frac{DPS_0}{(1+r_e)} + \frac{BPS_0}{(1+r_e)} + \frac{EPS_1 - r_e \cdot BPS_0}{(1+r_e)^2} + \frac{EPS_2 - r_e \cdot BPS_1}{(1+r_e)^3} + \frac{EPS_3 - r_e \cdot BPS_2}{(1+r_e)^3 r_e}$$

Where:

V_{post} - Value of buyer after the M&A deal;

$(DPS_{0,1,2})$ - Dividend per share in the year when M&A happened, one year following M&A deal and two years following the same deal;

$(BPS_{0,1,2})$ – Book value per share in the year when M&A happened, one year following M&A deal and two years following the same deal;

Re – Cost of Equity.

It needs to underline that:

- the first term in the formula defines dividend per share in the year of M&A deal;
- the second term in the formula defines book-value per share in the year of M&A deal;
- the third and fourth terms in the formula define the residual income in the first and second years after the M&A deal;
- the fifth term in the formula defines the terminal value.

The difference between true fundamental value before the M&A deal and after ($V_{post} - V_{pre}$) is the true fundamental value which was gathered or lost as the result of M&A deal.

There are several basic approaches to the evaluation of M&A, including valuation by methods of changing financial coefficients, real options, etc. However, event analysis is the most common methodology for researching mergers and acquisitions, according to Das A., Kapil S (2012) as well. According to authors, for the first time, the methodology of event analysis was proposed in the article Fama, Fisher, Jensen, Roll (1969). Thus, using the CAPM model, the reaction of stock quotes to certain events in the market is investigated in the form of the presence of statistically significant anomalous returns in the study of Kimberly M., Phyllis K (2014).

The popularity of this approach with respect to mergers and acquisitions is explained by a number of its advantages: the ability to measure the immediate reaction of the market to a specific event, ease of use, the possibility of aggregation, etc. However, the significant shortcomings of this methodology are the availability of information noise, non-implementation of the hypothesis of market efficiency.

This observation was also noted by Tsytsulina D (2013), as well as the lack of a unified approach to the regulations regarding the timing window. Thus, due to significant differences in the methodology of event analysis in different studies, the results of the work vary considerably

Fedorova E.A. and Rybalkin P. I. (2016) have used this approach as well in order to assess the effectiveness of M&A transactions in the Russian banking sector in the period 2006-2014 and

identify the factors that affect them. In the framework of achieving this goal, the following hypotheses were put forward in the study. Hypothesis 1: in the course of M&A transactions, the acquiring company reaches a positive accumulated excess return on a short-term "window" of observation. Hypothesis 2: the characteristics of the transaction (the size of the acquired stake, the country, diversification) have different effects on the value of the accumulated excess profitability of the buyer company, depending on the period in which the transaction was made (before, during, after the crisis).

Through their research, the main approaches were systematized and described to assess the effectiveness of mergers and acquisitions. Special attention is paid to the method of accumulated excess return. As a research methodology, the accumulated excess return method was used, which is based on the assumption that market quotes take into account all events occurring with the company. By calculating the profitability of the company's shares and comparing it with the normal profitability at that time, you can determine whether the deal is effective for shareholders or not. In the work, the indicator of normal profitability was calculated by the MICEX index, the excess yield was calculated for three periods: (-7; +7), (-4; +4), (-1; +1), where 0 is the official announcement date of the transaction. The empirical base includes 166 mergers and acquisitions in the Russian banking sector in the period 2006-2014.

Based on statistical analysis, the first hypothesis was confirmed. At the minimal "window" of observation (-1; +1), the negative value of excess accumulated profitability is less common than on longer "windows" (-7; +7) and (-4; +4). The second hypothesis was also confirmed. Before the crisis and during it, diversification transactions brought positive excess return on the "window" of observation (-7; +7). Prior to the crisis, the accumulated excess return on the "window" of observation (-4; +4) was positively influenced by transactions carried out within the banking sector. During the crisis, the same effect was provided by diversification deals. It was proved that in diversification transactions, positive accumulated excess return is less likely to be achieved than in capital concentration transactions in one industry.

2.4 The M&A influence valuation using the Case Studies

The case studies analysis for M&A can be described as the analysis of the specific transaction separately, while analyzing in detail the organizational and financial structure of the company before and after the merger. In this method, as well as in the next one, surveys of shareholders, management and employees can be used.

Linder and Crane (1992) have used the case study approach in order to estimate operational income of one bank merger in 1991 by comparison data of its performance one year before the M&A deal and in one year after the M&A deal, since they utilized -1 +1 event window. They studied the ability of the firm for cost cutting (in terms of cost cutting in financial statements and real statements). In order to achieve their goal they used public secondary data. The analysis was based already in join / consolidated bank in the UK. Their outcomes indicate that despite the fact that operational income has not significantly changed after the M&A deal, target bank differed from acquirer, it was more efficient in the post-merger period. Although, changes were not compared with possible control group.

R. Bruner (2004) was also the researcher who used that approach in order to analyze the value destruction and recovery but not in the bank industry. Bruner analyzed the alliance and merger deal between Volvo and Renault. These two companies had a chance to make the join organization through merger in 1993 briefly wrecked \$1.1 billion in Volvo's capitalization. Bruner interviewed 20 top managers of both sides. These interviews were added with information from studying the publication and news reports on order to determine motives behind this deal. The author also conduct the analysis of the wealth effect through analysis of abnormal returns using the market adjusted returns over the time before the deal announcement, during the negotiation of the deal and some time after the negotiation failing.

Another researcher, also using a case study approach, analyzed the impact of the M&A deal between ABN Amro Bank (Pakistan) and the British Royal Bank of Scotland. Kemal (2011), analyzing works of other researchers of mergers and acquisitions and their effects on banking financial performance, found out that the results differed from study to study and strongly depended on the sample and geography of the studies. Kemal used case study approach, since he assumed that such difference in results arises because of the large differentiation of the research objects. In other word, each M&A have many factors affecting its results. In order to evaluate Royal Bank of Scotland deal, the author utilized the financial ratios that he calculated using the audited financial statements of the two banks, in particular the balance sheet, the income statement and the CF statement over three years from 2006 to 2009:

- Liquidity ratios: current liquidity, acid-test ratio⁴, cash ratio, working capital;
- Profitability indicators: ROE, ROA, gross margin, net interest margin, pre-tax interest margin, operating profit margin;

⁴ is a strong indicator of whether a firm has sufficient short-term assets to cover its immediate liabilities (Investopedia 2012)

- Debt ratios: debt-to-equity ratio, interest coverage ratio;
- ROI;
- Net Profit per share.

Kemal concludes that most of the indicators deteriorated after the M&A deal, with the exception of debt-equity ratios, which improved. As a result of several years of losses, Royal Bank of Scotland sold its subsidiary in Pakistan to another bank. It needs to mention as well, that this deal analysis cannot be interpreted for another deal, however it could be overcome utilizing the comparisons of similar M&A deals in similar economic conditions

2.5 The M&A influence valuation using the Interview approach

Joash and Njangiru (2015) investigated the impact of bank mergers and acquisitions on financial results in Kenya based on a survey of banks. The authors formulated two research questions: 1. What effect mergers and acquisitions have on the company's shareholder value in connection with financial results 2. How mergers and acquisitions affect the profitability of companies. Joash and Njangiru identify several groups of users who will benefit from the study of the work: investors, bank management, academic researchers and students studying mergers and acquisitions.

The survey covers all 14 banks that participated in mergers and acquisitions, starting in 2000, based on management surveys. From academic studies, the authors mention Jensen's theory of agency costs (1986), as well as empirical studies on mergers and acquisitions in Kenya. Researchers conclude that various works on mergers and acquisitions do not yield sustainable results: in some cases, deals improve the profitability of banks, in other cases not. Also, Joash and Njangiru identified the main motives for mergers and acquisitions in banks in Kenya - increasing profits and increasing market share.

To analyze the data, Joash and Njangiru constructed the following regression model:

Equation 4: regression model utilized by Joash and Njangiru

$$ROE = a + b_1SV + b_2Pr + b_3Sy + b_4OE + e$$

Where ROE = Return on Equity, SV = Shareholder's value, Pr = Profit, Sy = synergy from the transaction, OE = increase in operational efficiency, a = constant, b₁, b₂, b₃, b₄ are the coefficients of the corresponding variables.

As a result of data analysis using the SPSS program, the result of the R-value of 0.7 was obtained, which corresponds to a high degree of correlation - thus, the authors conclude that there is a correlation between independent variables (transaction synergies, shareholder value, etc.) and dependent variable (ROE).

2.6 The Concept of Strategic Similarities

Although the already depicted hypotheses that are utilized to clarify execution changes with regards to M&A, the key research studies also has recognized different factors that affect the financial performance regarding to M&A deals. King et al. (2004) focused on post M&A changes in financial performance and included four main variables that could affect its financial performance. One of them was the strategic similarities between companies engaged in the M&A deals.

The overall idea of M&A efficiency is based on Porter's (1987) hypothesis of strategic similarities: when the buyer and its target have similar strategies. However, Porter (1996) has said that operational strategic similarities could be a key in order to overcome the strategic position, which includes diversifying business strategy and business in general from the competitors and which cannot be enough long sufficient for building the sustainable competitive advantage since it can freely be repeated by rivals.

Barney (1991), who introduced resource based view (RBV), also utilized that concept in order to explain that company's competitive advantage lies in the area of its resource base. That new Barney's view differs from classical synergy theories, concepts and arguments. According to that approach, part of the resources has higher value for the firm since difficulties or even impossibilities to find them or imitate, which could be needed for creating competitive sustainable advantage. He also found out that similarities in terms of resource allocation connect to strategic similarities, thus, according to Beard and Dess, 1981, RBV provides a wide base for the research of strategic similarities between the acquirer and the object of the purchase in the post-M&A deal financial performance outcomes.

As well, recent studies still deduct company specific strategies from resource allocation patterns expressed in accounting ratios. Based on the idea of strategic similarities, Altunbas and Marques (2008) expected that high degree of firms similarities will bring outstanding financial result after the M&A deal, since firms with a comparative arrangement of skills and similar business structure and size are better situated for effective execution of synergy effect. King et al, (2004) said "consequently, if two firms exhibit very similar resource allocation patterns as

measured across a variety of strategically relevant characteristics [...], they can be considered to be strategically similar”. Altunbas and Marques (2008) expressed the strategic similarities through characteristics relevant to the context of M&As in the banking industry and evaluated strategic similarities in terms of operating efficiency, emphasis on «marketing activity, client mix, earnings diversification strategy, risk propensity, liquidity risk strategy, market coverage, technology and innovation» (Altunbas and Marques, 2008). The consolidation of companies, which have strategic similarities, lead to a better post M&A deal financial performance, because they have an opportunity to gain extra benefits from extracting synergy effect. The researches give an example of efficient and low cost company in terms of operations, which fell into M&A deal with similar firm with similar characteristics. The analysis of that deal has made them able to conclude that the integrated firm would be able to get a better financial result since fully exploitation of synergistic benefits through combinations of similar competences.

2.7 The synergy theory

The core idea, which lies in the basis of synergy theory, includes the different types of resources for value creation. In general, there are several perspectives behind that theory. For example, resource-based perspective gives the opportunity to evaluate synergy effect. It describes value creation due to synergy effect through the amount of held resources by the company in the relation to the total existed amount of resources in the industry, economy and market (Hitt et al., 2007). Subsequently, available resources are able to create sustainable advantage of one company over another company. There are a lot of perspective to determination of the “resource” term, beginning from items used in the manufacturing ending with available purveyance which can be managed by the firm in general, not only in the manufacturing process. At the same, essentially, it should be taken into the account different forms of these resources: tangible (land, equipment etc.) and intangible (brand value, expertise etc.). That short overviewed approach has some limitations and critics of scientific researches. For example, there is the perspective that this approach is mainly focused on internal resource opportunities as a source for creating competitive advantage and at the same time ignored the potential needs of foreign markets as the source for creating global competitive advantage.

Under synergies in the case of M&A transactions, it is customary to understand the added value created as a result of the merger of the two companies, which opened up new opportunities for the unified company that are not available to companies individually, and increased its competitiveness. In the literature, there are two main types of synergy - operational and financial.

Operational synergy allows companies to increase the efficiency of current expenses or increase operating profit from existing assets. Quantitatively, there are two main types of operational synergies. First, economies of scale, which are manifested through the consolidation of the company after absorption and allows to reduce costs per unit of output. Secondly, the strengthening of the market position, which occurs when large players are merged into the industry. The deal leads to a decrease in competition and an increase in the market share of the combined company. It is assumed that the company will respond to the reduction of competition by raising prices for the main products or services in order to increase revenue. Financial synergy includes tax advantages, new investment opportunities for using free cash and increasing the stability of the company's cash flows.

Altunbus and Marques (2008) have said that the synergy concept is quite often utilized in order to evaluate the value creation due to M&A deals. They identified three approaches to assess the synergistic effect. The first approach is to assess the changes in operating results (operational synergy effect), the second approach is to assess the changes in financial results (financial synergy effect), and final one is to assess the changes connected with the price (collusive synergy effect). Similar perspective could be identified in recent studies as well. For example, Rauch et al. (2011) identified that the synergy theory «explains M&A transactions motivated by the intention of realizing merger synergies that will boost future cash flows and enhance firm value». Subsequently, he took into account two of three basic approaches, assessing the operational synergy effect and financial synergy effect as the basis for synergy evaluation in general. These two synergy effects could be achieved by company size incline (the scale effect) or by company-particular advantage improvement (the scope effect) (Chatterjee (1986)). The collusive synergy effect was observed by these two authors as the additional approach mainly, which required additional more deep analysis and interpretation, especially in terms of finding correlations between three approaches.

The operational synergy effect can originate from consolidating activities of up to M&A deal separate companies, which could be achieved through the scale effect and/or the exchange of expert knowledge and cross-learning actions (Rauch et al. (2011)). Further, Rauch et al. (2011) has comparable description of financial synergy effect, that could be achieved due to intersection of operations and bring down expenses, for instance operational expenses and capital costs. These effect could be connected to decrease in general investing risk or increase in general sustainability, which in that term could bring decline in costs of financing (cheaper capital from financial market). Moreover, the most outstanding reason for these achievement could be overcoming the asymmetric information (partial overcoming), which could be reflected in more effective resource

allocation or discovering new markets. The last one could also lead to tax reduction or financial opportunities connected with arbitrage between markets.

It should be noted that this study does not address some of the other synergies that do not appear in the financial statements. These include a combination of different functional competences. For example, this kind of synergy can arise when a company with strong competencies in marketing acquires a company with a broad product line. Accelerating growth through international mergers and acquisitions was not also overviewed, for example, when a company from a stable developed market buys a company from a fast-growing emerging market. An example of such a merger may be the purchase by a major US retail company the firm in an emerging market where a well-known brand, in conjunction with a sales network, can ensure rapid sales growth. Diversification was not observed as the factor as well, which can create financial synergies for private companies and illiquid markets, where investors can not diversify their investments independently.

Summary

In the first chapter, the analysis of research of mergers and acquisitions in the banking sector was overviewed of both, foreign and Russian authors. The overview included the studies of authors such as Aminu Diyo Sheidu (2015) and Dr. Jagongo (2017), who used the method of analysis of financial ratios, which based on the idea of calculation and analysis of the financial performance of the company before and after the M&A transaction and compare it with the performance of similar companies from the same industry that did not participate in the transactions for the period under study. A number of studies, such as J.T. Leverty, Y. Qian (2010) and Joash and Njangiru (2015), used a survey of managers of large companies that have made transactions in the past in order to evaluate the M&A deals influence of financial performance. However, there are a lot of evidences of using case studies approach (R. Bruner (2004) and Kemal (2011)) focusing on the analysis of each deals with the transaction, while analyzing in detail the organizational and financial structure of the company before and after the merger. Numerous studies have attempted to explain M&A deals impact on financial performance through examine the effectiveness of the transaction from the company's shareholders, calculating the accumulated excess cumulative yield (CAR). Fedorova EA and Rybalkin P. I. (2016), Kimberly M., Phyllis K (2014) are examples of researches who used that approach.

The issue of evaluating mergers and acquisitions remains controversial, several methods are used to evaluate the M&As impact on banking profitability. Two of them (the method of

accumulated excess return and analysis of financial statements) are more popular in scientific papers on this topic due to the ease of use, data availability and data reflection in terms of clear data interpretation.

Each of these four methods has certain advantages and disadvantages. They were most fully described by R. Bruner. The method of analyzing financial statements allows to obtain reliable results, since all indicators are calculated on the basis of audited data. However, if you focus only on this information, it is extremely difficult to accurately assess the impact of the transaction on the consolidated cash flow from operating activities.

Using the survey of managers, it is possible to trace the degree of influence of managers' awareness of the information hidden from the market, which is a plus. But the utility for the manager does not always coincide with the presence of beneficial effects for the shareholders of companies - the main beneficiaries of any changes and reorganizations in business. In addition, many managers refuse to take surveys, agree to participate about 10% according to Bruner.

The main tool for calculating the positive effect for shareholders is the method of accumulated excess return. It is based on the assumption that market quotes take into account all events taking place with the company. Thus, if you calculate the yield on the company's shares and compare it with the normal profitability at that time, you can determine whether the deal does influence the shareholders wealth or not. However, do not underestimate the degree of simplification of this method. The main condition for its implementation is the presence on the market of rational investors who estimate to the full all possible outcomes and results of mergers and acquisitions, only in this case the quotes of the company's shares will be representative for the study. Complicating the situation is the fact that investors get access to information about the planned or already completed transaction at different times, so the market effect may appear at different times, not necessarily on the day of the announcement of the transaction.

Research gap, which was found in lack in M&A influence model in financial statement analysis approach that could include all factors, considering strategic similarities variable, that affect bank profitability in the context of Russian banking industry, could be covered in current study.

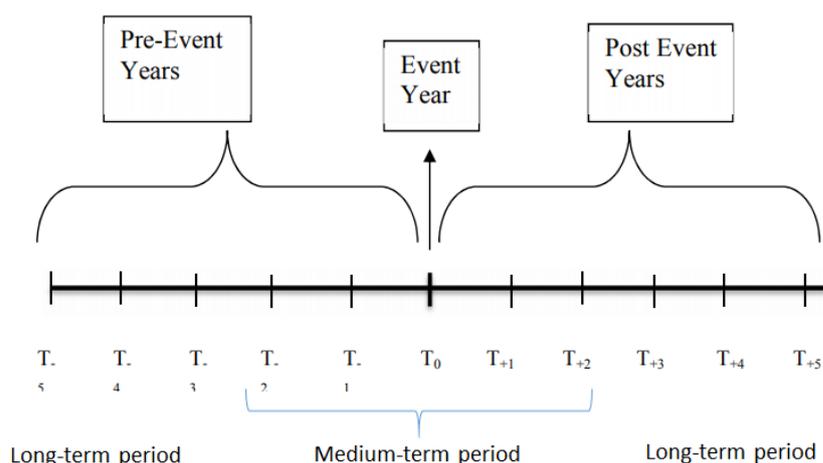
3. The methodology of the study

3.1 Theoretical framework

The method of analysis of financial statements is going to be used in order to achieve the goal of the current study. According to De Young (1993) and more recent researcher Aminu Diyo Sheidu (2015), this approach usually consists of several stages.

At the very beginning (zero) stage, it is necessary to formulate a research question, justify its relevance and then also identify hypotheses that will be confirmed or disproved during the research.

At the first stage, there is a need to create a relevant sample of banks and choose the period for the analysis, as well the period for the event window analysis, which could vary from one year to seven years. At this stage, the most relevant transactions should be selected. It is necessary to separately analyze M&A deals inside the country and cross-border M&A deals (CBM&A) since the structure, conditions and economic aspects of such deals could significantly differ. In addition, it is necessary that the data, needed for the selected M&A deals, was available during the whole event window studied. According to Russian researches Fedorova E.A. and Rybalkin P. I. (2016) 2 years event window before and after the M&A deal would give the most precise results in order to follow the medium-term results of the M&A deal and avoid the influence of other external economic factors.



Graph 4: Framework of the event window

Source: Fedorova E.A. and Rybalkin P. I. (2016)

The minimum number of transactions in the method varies significantly, from study to study, and the number of M&A deals, included in the analysis, was at least ten, according to Fedorova E.A. and Rybalkin P. I. (2016). However, including at least thirty deals into the model

of the analysis is the minimum requirement for current study, as it, probably, gives results that are more trustworthy. The data can be collected both from primary sources such as annual bank reports, which usually uploaded on the official websites, and from secondary sources, such as the Thomson Reuters database, Zephyr database and the official website of Russian Central Bank.

The next stage, as a logical continuation, is the creation of financial ratios, which could be used to describe banking profitability. According to the professor Abdulazeez (2016) financial ratios, such as

- return on equity (ROE)
- return on assets (ROA)
- earnings per share (EPS)
- net interest margin (NIM; specifically used for description banking profitability)

could be used for the analysis of changes of banking financial performance because of M&A deals. In addition:

- liquidity ratios (instant, current, short-term and long-term liquidity)
- capital adequacy ratio (CAR; specifically used for description banking profitability)
- nonperforming loan (NPL)
- the level of depreciation reserves
- and others

can be additionally analyzed in order to achieve the minimum requirement level of model significance. These ratios also could be used in order to compare the strategy of acquirer and the strategy of the object of the deal.

The third stage includes the method of data analysis and model creation. The chosen approach should be relevant to settled goal and the available sample of bank M&A deals. It needs to mention here the importance of avoidance simple models such as case study in order to have the opportunity to get precise results and have the ability to interpret results for the whole industry. However, too difficult models, such as non-parametric data envelopment analysis, which results difficult to interpret, should not be used, as well as other difficult models. Here as an example could be the model of Sehrish Gu et al. (2011) who have included in the model not only the factors, determining the banking profitability, but also macro factors (GDP growth, inflation rate etc.). The achieved model was not statistically significant in terms of R square.

There are several econometric methods that could be most relevant for analyzing the effect of mergers and acquisitions on the bank profitability. Multivariate regression analysis is relevant for identifying the relationship between the dependent variable (the profitability of banks, for example, in the form of ROE indicator) and independent variables, such as participation in mergers and acquisitions, the degree of similarity of the balances of banks involved in the transaction, and others. Time series analysis could be utilized in order to identify changes in future financial performance of Russian banks without including into the analysis banks, which fell into the M&A deals, and external macro factors. The time series analysis is the statistical material collected at different instants of time about the meaning of any parameters (in the simplest case of one) of the process under study. The time series differs significantly from a simple sample of data, since the analysis takes into account the relationship of measurements with time, and not only statistical diversity and statistical characteristics of the sample

After choosing the method, it is necessary to test the model, especially to estimate the unknown parameters of the model. After that, it is necessary to verify the model - check the results for significance and accuracy.

At the last stage, the results of data analysis are summarized, the main conclusions are formulated and directions for further possible improvements of the research topic are determined, according to limitations of the given model.

3.2 Hypothesis development

In order to achieve the goal of the current study and according to the analyzed theoretical benchmark, one of the most basic and at the same time the most important hypothesis, in terms of general understanding the mergers and acquisitions influence on banking profitability, is common hypothesis that: *mergers and acquisitions lead to a positive change in financial performance (H1)*.

As an example of authors who proved that hypothesis was Abdulazeez (2016). He measured the profitability of banks utilizing ROE (return on equity) as the main indicator. ROA (return on assets) was also considered for the bank profitability estimation.

The key problem to confirm or disprove this hypothesis is to separate the influence of bank engaging in M&A deal from other factors. For example, if the ROE of banks engaging in M&A grows from the weighted average ROE before the deal, it cannot be unequivocally said that the growth of ROE is a consequence of M&A. Among other factors that can significantly affect financial results, should be noted the quality of management work, increased competition, the economy growth rate, regulation and inflation rate.

The basic way to solve the problem of separating the influence of bank engaging in M&A deal from other factors is to compare the results with the dynamics of the industry as a whole or comparable banks that did not participate in mergers and acquisitions. Also in some studies, for example Hellgren et al., 2011, the authors exclude from the sample banks that participated in several transactions - since in this case it is more difficult to assess the contribution of a particular transaction to the change in the bank's financial performance. It is also important to exclude from the sample transactions between very large bank (in terms of capital) as the acquirer and a small bank (for example, the M&A deal between Sberbank and subsidiary of BNP Paribas bank in 2012) - since this transaction will in any case have a negligible effect on the financial results of the acquirer bank.

Among the more advanced ways to separate the impact of M&A deals on financial performance, are the approach of separation the effect of ROE changes on the components. As a result, M&A deals, as a rule, generates synergetic costs from cost optimization (back-office costs, branch intersection, etc.) and revenue growth (from cross-selling, consolidating the brand of a merged bank, increasing market share, etc.). Accordingly, it is possible to estimate how the level of expenses (Cost to Income) and income level (the growth rate of the loan portfolio in comparison with previous years and with competitors) have changed. If the combined bank significantly reduced costs or increased revenues compared to previous years and with competitors, as a result of M&A deal, it can be assumed that the transaction had a positive impact on financial performance (even if the ROE decreased due to other reasons not related to M&A).

The financial results of banks after M&A deals cannot be compared with the results of the entire market. The results can be compared only with the most relevant competitive banks. For example, if a small regional bank engaged primarily in retail business engages in a M&A deal, its results should preferably be compared with the same regional retail banks, rather than the entire market consisting of more than a half of state-owned banks such as Sberbank, VTB, and others. From the disadvantages of that approach, it should be noticed that it is actually necessary to consider each transaction and competing banks separately. Another possible way is to exclude from the sample banks with outstanding market share (Sberbank with >70% of the market, and VTB with approximately 10% of the market share measured using the deposits rate on these banks accounts)

Ideally, it is necessary not simply assess the change in financial performance after M&A deals, but also take into account the costs incurred during the transaction, and the value of money and possibly other resources (time, risks) paid by shareholders. This issue is particularly relevant

for transactions where the seller paid a significant premium to capital - in some transactions before the global financial crisis, the banks' ratio could be estimated at 3-4 bank capitals. However, that issue could be included in the part of possible improvements of the current work.

The value of money can be estimated at the level of the stock index return. For example, in the method of the Event Study, the excess returns (usually named as residual income approach) of the shares of the relevant banks are calculated. After the obtained calculations it is necessary to subtract the yields after deduction of normal returns, for example, the stock index of the corresponding country. Nevertheless, in academic studies, a net change in the financial performance of M&A deals is rarely valued - as there are no necessary data (transaction value, premium level to capital, etc.) and these calculations complicate the work and reduce the likelihood of a positive result from M&A deals.

The second hypothesis is used with the overview synergy theory, described in literature review, and its two main components, operational synergy effect and financial synergy effect. That theory is able to explain changes in financial performance after M&A deal, thus the second hypothesis could be formulated the next way: *mergers lead to a positive change in financial performance facilitated by tapping into synergy effects (H2)*

A common method for estimating economies of scale is to estimate the change in the efficiency of the capital of a buyer company after an M&A transaction. This method assumes that the buyer company after the transaction will show a positive dynamics in the efficiency of capital compared to the industry benchmark. This approach to measuring the estimate of economies of scale was used in (Maksimovic, Phillips, 2001) on the basis of transactions conducted in the United States. The authors found that the median value of the ratio of capital to the market value of assets declines from 14.4 to 10.8% in the next year after completion of the transaction. At the same time, in (Kwoka, Pollitt, 2010), as an example of M&A in the US energy sector, it was concluded that such transactions do not create significant economies of scale. Studies of M&A transactions in recent years in individual countries recorded the creation of economies of scale. For example, Zschille (2015) showed an improvement in the efficiency of capital after transactions in Germany in 2006-2008, the author reached the same conclusion for transactions in Norway in 1995-2004. This gives grounds to assume that transactions aimed at consolidating and reducing costs are more efficient. For individual emerging markets, an estimate of economies of scale to determine the operating synergies in M&A transactions has not been widely used so far due to the limited availability of data on the size of the company's capital. Subsequently, it is assumed that a M&A

deals will affect the bank financial performance due to facilitation by tapping into operational synergy.

This theory is supported by the auxiliary components as well. It was underlined above that the operations are now recognized as the helpful banks' most prominent shortcoming (S&P's, 2010). In this manner, it is likely that this theme will get extraordinary consideration among the process of M&A deal. In any case, regardless of this supporting contention, it must be viewed that the evaluated increment in effectiveness may be damaged by bringing down possible profit outcomes by companies falling into the M&A process (or one company) because of low execution contrasts between merged banks (Kontolaimou and Tsekouras, 2010). Anyway, it is assumed that improvements in operational efficiency would be discovered.

The second aspect of the synergy effect is the effect of financial synergy. There are many ways to achieve this effect, for example through increasing the size of the company from the perspective of capital. It is expected to find that the cost of capital will increase the overall financial performance of the merged banks. Ketter (2008) described possible problems associated with the analysis of capital changes in the context of the analysis of banks' mergers and acquisitions. Ketter found that such an approach involves borrowing costs. However, it is worth noting that it is difficult to divide the financial incoming flows into various sources of financing, for example, it is difficult to separate deposits of individuals and legal entities from issued bonds or interbank loans. This situation is complicated by the fact that banks do not publish the distribution of interest expenses by category.

Trautwein (1990) also describes the opportunity to achieve and extract the effect of financial synergy by reducing the risk of the company's investment portfolio by investing in unrelated enterprises, i.e. by diversifying current assets. However, it should be noted that this assumption did not find strong empirical support from other authors (Ramaseamy, 1997). Moreover, it can not be unequivocally said that this approach has been sufficiently well studied. Even if this factor is ignored due to the lack of empirical support, changes in the risk profile of the company can not be investigated further because of the lack of information not only in Russia, but in the world as a whole. To assess the volatility of the risk profile of the company's investment structure (by investing in businesses that do not correlate with the core business of the company), it can be used, for example, a general return-equity index for mergers and acquisitions of banks to assess the security covariance for the period before and after the merger. Then we can expect that a merger will reduce the acquirer's beta-coefficient relative to the investment portfolio of the bank's domestic market and increase its beta coefficient relative to the bank's portfolio (Amihud et al.,

2002). However, this approach can not be used for joint bank mergers, since most of the banks included in the studies are not public, they do not merge internationally, but mostly merge only with each other.

To sum up, it is assumed that banks falling into M&A process are able to improve their profitability through structural changes in operational and financial efficiency, supported by the synergy effect. Moreover, that result should be found in improvements in net interest margin as the ratio to discover changes in effectiveness of resource allocation and general operational efficiency due to decreasing the cost of financing (scale synergy effect). Thus, capital effectiveness should also be improved.

The third hypothesis is based on the theory of strategic similarities. «It is explained that strategically similar companies are in the position to fully exploit synergies and avoid conflicts that are connected with merging dissimilar strategies» (Altunbas and Marques, 2008). Subsequently, it is expected to find strong evidence that similarities in strategy measured by operating effectiveness would lead to enhancing the post-merger financial results. Thus, the third hypothesis could be formulated as: strategic similarities between merging and acquiring banks lead to increased financial performance (H3). Similar hypothesis was studied by Altunbas and Marques (2008), who determined strategic similarities as significant factor in financial performance changes in Europe. However, there is no strong evidence of studying that between banks in Russia in recent years, thus here is the area for additional possible theoretical and practical implications.

The question of how to measure strategic similarities is often question in benchmark studies. According to the current literature review and particular King et al, (2004), evaluation of similarities could be done through studying the resource allocation. Similarities in terms of resource allocation connect to strategic similarities, thus, according to Beard and Dess (1981), provides a wide base for the research of strategic similarities between the acquirer and the object of the purchase in the post-M&A deal financial performance outcomes. Strategic similarities of the acquirers and acquires could also be estimated based on the approach which Altunbas and Marques suggested and based on the analysis of the structure of the balance sheet for several indicators such as resource allocation efficiency (NIM - net interest margin, Interest performance and expenses (Interest income/Total assets, Interest expenses/Total Assets, etc.) The precise methodological aspect will be described in next chapters.

The fourth hypothesis was formulated on the basis of findings of Dr.M.Ravichandran (2016) that bidder banks are usually stronger than targets banks, particular in terms of financial

performance. Banks with higher financial performance not only able to start such deals but could extract synergy effect from that deals. Having better financial performance means that bidder banks are more efficient and thus have extra resources for buying other banks. Subsequently, the fourth hypothesis could be formulated next way: *acquirers have better financial performance than the acquires before the initiation of M&A deal between them*. The same hypothesis was formulated by Girma, S., et. al. (2011), which determined the general better performance, in terms of financial ratios, of bidders comparing with targets.

The fourth hypothesis' context includes the need to mention that M&A influence inclines when highly effective banks merger or acquire with low effective. Carpenter et al. (2009) offer the idea that the core idea behind financial improvements lies in the fact that low performance targets have space and potential for additional improvements. However, Carpenter et al. defined M&As with low effective companies as the potential problem which is reflected in investment risk and potential failure of target bank improvement.

Summarizing the hypothesis development above and according to the goal of the current study, to the research questions and to the analyzed theoretical benchmark, one of the most relevant hypothesis for achieving the goal are:

- The first hypothesis (H1): mergers and acquisitions lead to a positive change in financial performance (Abdulazeez (2016))
- The second hypothesis (H2): mergers and acquisitions lead to a positive change in financial performance facilitated by tapping into synergy effects (Bacchiocchi E. et. al. (2015))
- The third hypothesis (H3): strategic similarities between merging and acquiring banks lead to increased financial performance (Altunbas and Marques (2008)).
- The fourth hypothesis (H4): acquirers have better financial performance than the acquires before the initiation of M&A deal between them (Girma, S., et. al. (2011))

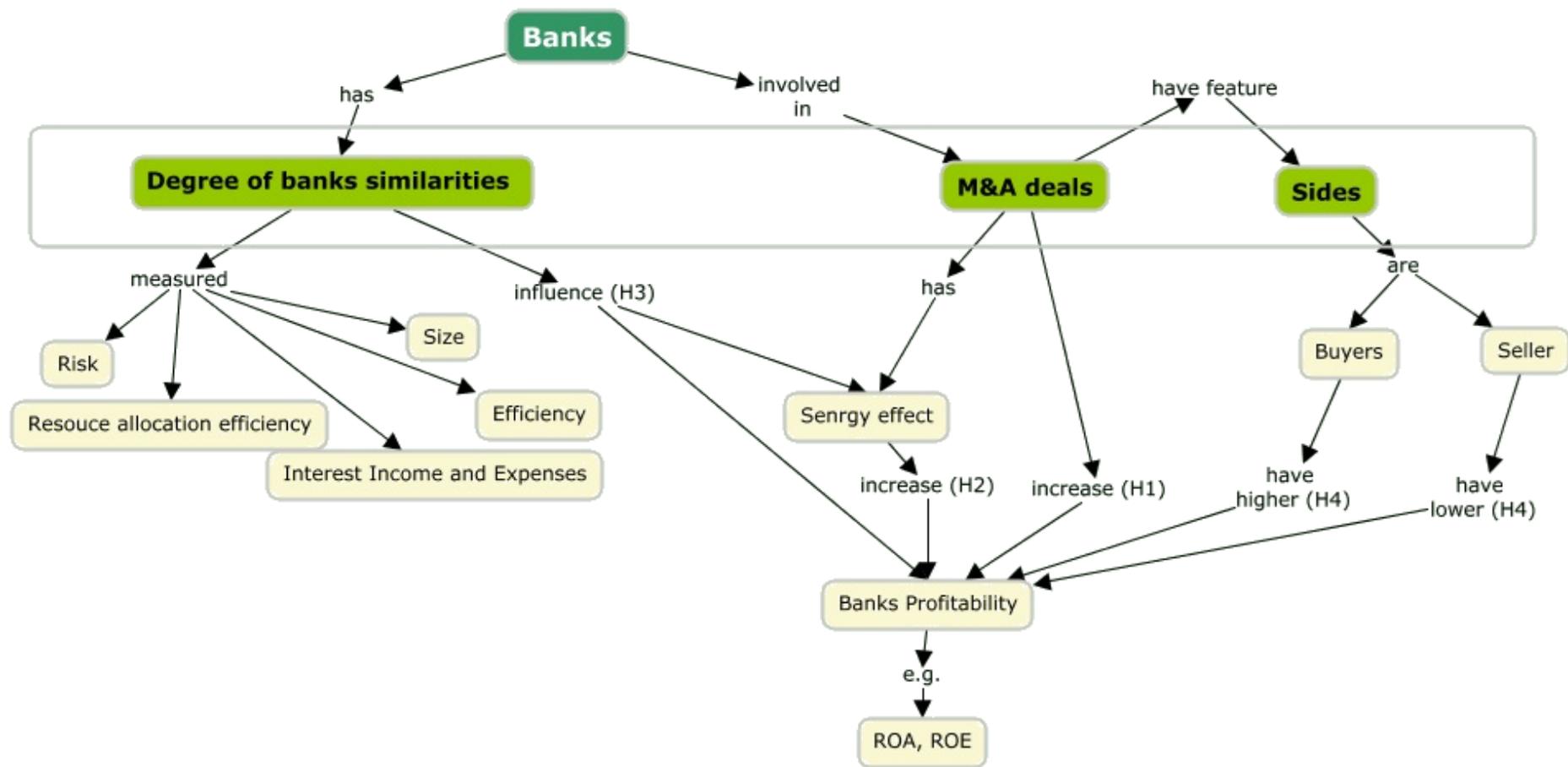
The table below represents and summarizes why these hypothesis were used in order to estimate the impact of M&A on banking performance:

Table3: structuring the hypothesis

Hypothesis	Preamble	Researcher
The first hypothesis (H1): mergers and acquisitions lead to a positive change in financial performance	Mergers lead to the notable impact on bidder's financial performance thanks to the expanding of current business opportunities	Abdulazeez (2016)
The second hypothesis (H2): Mergers lead to a positive change in financial performance facilitated by tapping into synergy effects	The synergy theory assumes that there is the possibility to extract additional benefits through achieving the operational synergy effect, which appears after joining companies in interconnections in operations, clients and products, and also due to transferring knowledge and expertise. The second part of the synergy theory assumes financial synergies facilitated by an increase in company size	Bacchiocchi E. et. al. (2015)
The third hypothesis (H3): strategic similarities between merging and acquiring banks lead to increased financial performance	Having shared strategic characteristics such as operational efficiency results in superior financial performance	Altunbas and Marques (2008)
The fourth hypothesis (H4): acquirers have better financial performance than the acquires before the initiation of M&A deal between them	Acquisition performance increases when high-performing firms pair with low-performing targets	Girma, S., et. al. (2011)

Source: Author's compilation

At the same time, the concept map was created in order to demonstrate how hypothesis interconnected with each other and bank profitability (graph 4).



Graph 4: Concept map of hypothesis' interconnections and their influence on bank profitability

Source: Author's compilation

3.3 Methodology and data development

The next subpart includes the development of the methodology including factors, which associate with 4 already developed hypothesis in the previous subpart. The methodology description also includes the testing approaches depending on the hypothesis and varies from Wilcoxon sum rank test to regression analysis. Moreover, data sample collection process will be also discussed as well as the approach of sample optimization according to the current study goals. Empirical sample will include the financial data of pre-merger banks and post-merger combined bank, as well as the benchmark of whole industry. The last one means, that financial statements of banks that did not participate in M&A activities will be also overviewed.

In order to achieve efficient testing of developed hypothesis, there is a necessity in utilizing different approaches. For instance, testing the H1 and H2 hypothesis requires the comparison of financial ratios values in pre- and post- merger or acquisition period. The second approach, dealing with H3, aims to compare different pre- and post-merger efficiency ratios and their influence on the banking profitability ratios. The last approach, dealing with H4, aims to evaluate only premerger efficiency ratios.

The comparisons, which connected with pre and post bank(s) evaluation, are needed to compare pre and post values. The problem here that pre values are also presented in separate values however post merger values are ~50% cases presented combined and ~50% are presented separately. In order to achieve that data would be comparable we use the average score between the acquire and the target for two years before and after the M&A deal evaluated by the next formulas:

Equation 5: the average value between the buyer and the target banks

$$Xpre_{a,i} = \frac{(Xpre1_{a,i} + Xpre2_{a,i})}{2}$$

$Xpre_{a,i}$ is the average pre value of a th variable for the i th merger or acquisition, calculated as the two years average value before the deal of the X acquirer. The same formula is used in order to evaluate two years average for the Y target bank.

Equation 6: the combined bank value in the post-merger period

$$Xpre - combined_{a,i} = \frac{(Xpre_{a,i} + Ypre_{a,i})}{2}$$

$X_{pre-combined_{a,i}}$ is the average pre value of a th variable for the i th merger or acquisition, calculated as the two years average value before the deal of the X and Y banks. As I underlined before, the data of banks before the merger also presented separately.

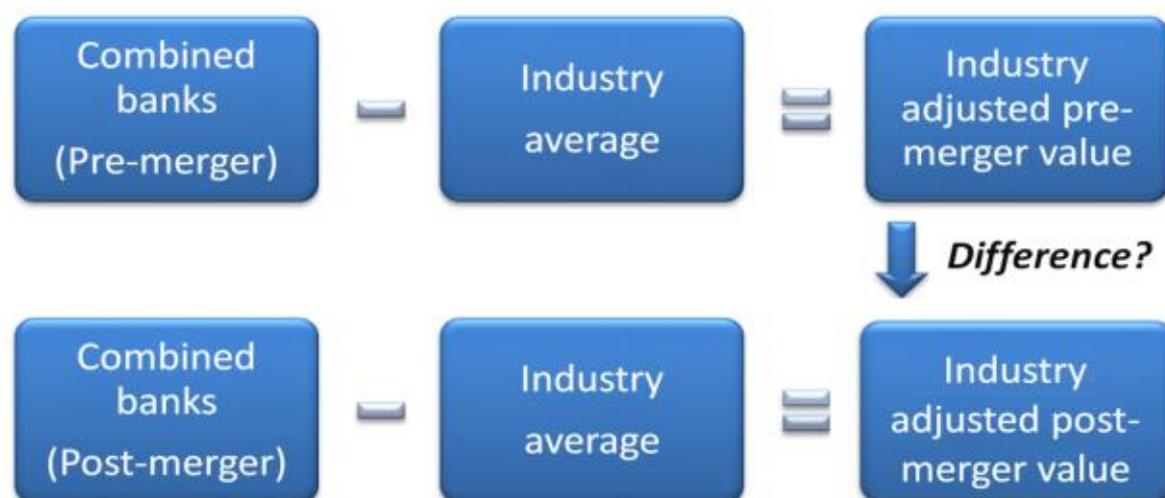
$X_{post-combined_{a,i}}$ is based on the same formulas and used to evaluate two years average value after the deal of the X and Y banks.

The change in $X_{pre-combined_{a,i}}$ value and $X_{post-combined_{a,i}}$ value is defined as difference for a th variable of i th merger or acquisition of X bidder. The variables would be described below depending on the tested hypothesis.

The change in pre and post values would be tested on the basis of means and medians. Initially the Wilcoxon signed-rank test would be used on matched pairs of pre and post values in order to evaluate the influence of M&A deals using various ratios. It needs to mention here that nonparametric analyses was not influenced by factors such as outlier M&A deals and did not rely on the nearly normal conditions.

There is a huge importance in adjust the values obtained before and after the merger and acquisition in order to separate the influence of other factors (macro factors) on the financial results of the merged bank. This approach is quite typical for research in this area. Correction of values is carried out mainly due to the benchmark of banks that did not carry out transactions on mergers and acquisitions. Benchmark in the current work was created on the basis of statistical financial results of a group of banks (107 banks were used to estimate average market values), both public and private. The five largest banks in Russia were not included to calculate the average values for the industry, because they are very large in terms of capital and are subjects to economic and political effects that are not reflected in other banks (Sberbank, VTB, Gazprombank, Russian Agriculture Bank, Alpha Bank). The graph 5 illustrates how industry adjustment were made.

The following regression analysis is used to analyze how banks which are strategic similar influence the process of M&A deals in terms of resource allocation measured by financial ratios, which is determined as the difference between the merged banks' two-year average variables pre and post M&A deals periods.



Graph 5: methodology of value adjustments

Source: Authors' compilation based on Altıok-Yılmaz (2011)

The third hypothesis: strategic similarities between merging and acquiring banks lead to increased financial performance (Altunbas and Marques (2008)⁵ will be based on financial coefficient suggested by Altunbas and Marques (2008) and Ramaswamy (1997) measuring

- **Risk** - Capital adequacy $H1 = \text{bank equity} / \text{Assets}$ (one of the basic determinants of bank stability, estimated on annual base by central bank and in last several years is one of the most often reason for revoking bank licenses (Altunbas and Marques (2008) adopted by the author)
- **Resource allocation efficiency** - $\text{NIM (Net Interest Margin)} = (\text{Interest income} - \text{Interest Expense}) / \text{Assets}$ (Ramaswamy (1997))
- **Interest Income** - $\text{Interest Income} / \text{Total assets}$ (Altunbas and Marques (2008))
- **Interest expenses** - $\text{Interest Expenses} / \text{Total assets}$ (Altunbas and Marques (2008))
- **Size** - $\text{total assets of acquirees to total asset of acquirers}$ (Ramaswamy (1997))
- **Efficiency** - $\text{Return} / \text{Equity} - \text{pre merger general efficiency}$ (suggested by the author)

It should be noted that in addition to the above indicators, there are other independent variables that can significantly affect the success of the M&A transaction - for example, the difference in the corporate culture of banks or the quality of the transaction. However, these

⁵ Altunbas, Y. and Marqués, D. (2008). Mergers and acquisitions and bank performance in Europe: The role of strategic similarities. *Journal of Economics and Business*, 60: 2008-222

indicators are much more difficult to quantify - especially in the case of the analysis of not a single transaction, but a sample.

In order to estimate similarities, the below provided formula is going to be used:

Equation 7: the index of bank similarities

$$XI_{a,i} = \sqrt{(XI_{pre_{t,a,i}} - XI_{pre_{b,a,i}})^2}$$

$XI_{a,i}$ is the index of similarity of banks in the pre M&A period for the a th factor for the i th M&A transaction. $XI_{pre_{t,a,i}}$ and $XI_{pre_{b,a,i}}$ are the scores for the acquirer and acquiree for the a th factor for the i th M&A transaction. The difference calculations between factors, which are used in order to describe strategic similarities between banks and to estimate the strategy of bank resource allocation will be observed below. The model will evaluate the impact of these independent variables on the dependent variable - the change in the ROE of the merged bank. The same analysis will be provided for ROA of the merged banks. The hypothesis will be confirmed if the similarity between banks on the above independent variables will have a significant impact on the change in the profitability of the merged bank. Also, the hypothesis can be partially confirmed (if some variables have a significant positive impact and others do not) or disproved (unless the variables have not a significant impact).

3.4 Data description

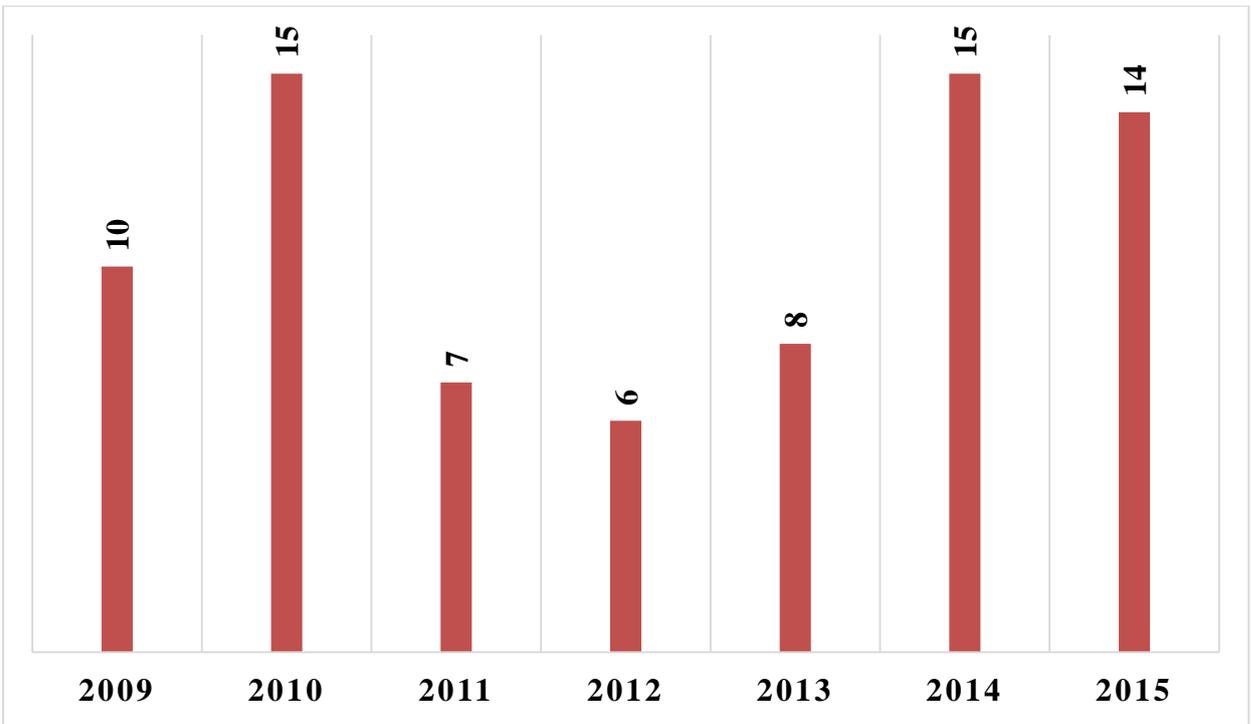
As a sample of data for the model, M&A transactions in Russia will be used no later than 2015 - for analysis purposes, it is necessary that the data be available 2 years after the transaction. To create a sufficient sample, a sufficient time interval should be used. The filters used for sampling are rather narrow. 2009 - was chosen the earliest year of inclusion of the transaction in the sample, because in 2007 (the earliest year of required data) was the year of changes in the legal standards for calculating the balance sheet indicators of banks. Consequently, earlier financial indicators will be incorrectly compared with financial indicators already subject to changes. Thus, the collected data range includes 2007-2017, and the period of completed transactions 2009-2015. The 2008 crisis does not have any noticeable results on the sample of data; the compared values are cleared of general economic, legal and political aspects through the model described in the methodological part.

The list of mergers and acquisitions was obtained from the Thomson Reuters base Eikon and Zephyr. Transactions were selected with the following filters:

- Target industry for M&A – banks
- The deal was fully completed
- Type of transaction: purchase of controlling interest, merger or acquisition, i.e. exclude from the sample transactions related to the purchase of shares in business
- Geography: transactions are made only within the country, because Cross-border transactions result in distortion of results due to different reporting standards
- Buyer's sector: only banks (as some organizations - buyers are engaged not only in banking but also asset management)
- Buyer status: buyers with an "investor" status are excluded, since they are private individuals and accordingly the transaction is a change of ownership, but not an association with another bank

As a result of the application of these filters, a list of 75 transactions was formed between 2009 and 2015 (Appendix 1).

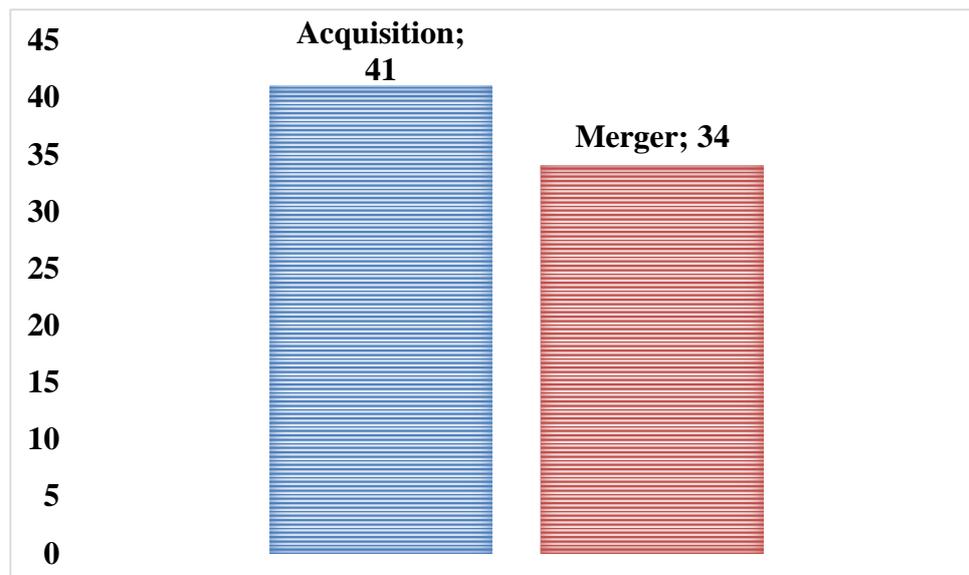
The number of M & A transactions was insignificant in stable times 2011-2013. However in the time of turbulence and in the period after, for example 2009-2010 and 2014-2015, the annual number of transactions grows approximately 2-times (graph 6). It may be connected with bank failures in general and their sanations, and as well with the expansion strategy, when the purchase of a bank is connected with the possibility of expanding business, surviving on the market or general development/increasing of the market power.



Graph 6: the number of M&A deals by years

Source: Authors' compilation based on Thomson's Reuters database (2018)

In the future, we will consider in more detail only these transactions, in which only banks acted as buyers and sellers. Of these transactions, 34 were acquisitions, and 41 - mergers (chart). Consequently, on average, acquisitions were more frequent than mergers.



Graph 6: the type of M&A deals by years

Source: Authors' compilation based on Thomson's Reuters database (2018)

Top 10 banks in terms of the amount of mergers and acquisitions were BINBANK (7 deals), Rost Bank, Vostochnyi ekspress bank, Expobank LLC (5 deals), AKB Rosbank (3 deals). The large number of banks carried out 2 transactions for the period. Top-10 banks in terms of the number of transactions are shown in the table 4. It should be noted that 5 banks from the top-10 have already ceased to exist or have been reorganized, so it can be concluded that active participation in mergers and acquisitions at least does not guarantee the bank's survival.

- BINBANK was sanitized by the Central Bank in 2017 (RBC 2017);
- Rost Bank was sanitized by Binbank in 2014 (RIA 2017);
- Promsviaz'bank PAO was sanitized in 2017 (RBC 2017);
- OAO Aktsionernyi Kommercheskiy Bank Probiznesbank was exposed to the sanitation procedure in the crisis of 2014 (Deposit Insurance Agency 2017);
- OAO Khanty-Mansiyskiy Bank, reorganized into a financial corporation OTKRITIE, was also sanitized during the rehabilitation of the group of companies OTKRITIE in 2017 under the new scheme through the Central Bank-controlled Fund for the Consolidation of the Banking Sector (Vedomosti 2017).

Table 4: Top-10 banks in terms of the number of M&A deals from 2009 to 2015

Bank - acquirer	Targets
BINBANK PAO	7
Rost Bank AO	5
Vostochnyi ekspress bank PAO	5
Expobank LLC	5
OAO AKB Rosbank	3
Promsviaz'bank PAO	2
OAO Aktsionernyi Kommercheskiy Bank Probiznesbank	2
Sovcombank PAO	2
Aktsionernyi Bank Rossiia AO	2
OAO Khanty-Mansiyskiy Bank	2

Source: Authors' compilation based on Thomson's Reuters database (2018)

75 deals were made between 2009 and 2015, which will be formed as the sample for the model. Deals happened for the given period have the greatest probability that information will be available 2 years before and after the transaction. The global financial crisis, most likely, significantly affected the results of banks, so it is desirable to consider separately the transactions that were held after the crisis, from transactions that took place before the crisis. However, using

the model described in the methodological part, it will be possible to clear data from factors related to the industry as a whole.

Despite the fact that this number of transactions is quite a lot, the real number of transactions relevant for analysis is less. Sberbank (purchase of BNP Paribas Vostok) and VTB Group (purchase of the Bank of Moscow, Transcreditbank and Bezhitsa-Bank) were excluded from the sample, as Sberbank and VTB are significantly larger in size and differ in other indices from other buyer banks. Moreover, depending on the analysis and the variables being analyzed, the sample will be varied, because part of the transactions will be discarded:

- Transactions of banks were excluded from the sample that are carried out several M&A deals in the period less than 2 years;
- Combined transactions of buyers who purchase 2 or more banks in one year were excluded from the sample in the case analyzed method include only pre merger or acquisition financial performance;
- Transactions of banks of buyers that purchase 2 or more banks in one year are combined if the analysis includes the pre and post mergers and acquisitions, thus the number of M&A deals decreased.

Initially gathered data was also checked on normality among all variables. Due to the fact that gathered data would be analyzed only when needed values would be estimated and combined, finally analyzed and gathered data was grouped into combined variables and checked in normality. Due to the fact that sig is close to zero we reject the H0 hypothesis that data are normally distributed and accept the hypothesis, that data do not have normal distributions. It means that non-parametric tests would be used.

Table 4: Top-10 banks in terms of the number of M&A deals from 2009 to 2015

	Test of Normality					
	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig	Statistic	df	Sig
Operational Income V	0,158	54	0,002	0,89	54	0,000
Operational Expense V	0,201	54	0,000	0,795	54	0,000
Net Profit V	0,212	54	0,000	0,712	54	0,000
Assets V	0,25	54	0,000	0,746	54	0,000
Equity V	0,235	54	0,000	0,602	54	0,000
Liabilities V	0,272	54	0,000	0,535	54	0,000

Source: Authors' evaluation

3.5 Industry average parameters

The next step was the accumulation of industry average financial indicators through compilations financial result of banks that did not participate in the M&A deals in the observed period. The primary purpose of that action was the adjustment of changes in financial improvements of banks, which participated in M&A deals. The table 5 below represents the average industry indicators that were used to get precise changes in financial performance of banks due to M&A deals.

Table 5: Industry average financial results, key metrics, from 2007 to 2016

ROE									
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
7,0%	7,5%	-0,2%	6,6%	6,5%	7,0%	6,7%	-1,4%	-0,1%	5,8%
ROA									
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1,3%	0,9%	0,0%	1,1%	0,8%	0,9%	0,8%	-0,1%	0,0%	0,6%
Capital Adeqacy H1 (Equity/Assets)									
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
18,0%	12,2%	16,8%	16,7%	13,1%	12,7%	12,6%	8,8%	9,5%	10,2%
NIM (Net Interest Margin)									
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
2,7%	3,3%	3,7%	3,7%	3,1%	2,8%	3,1%	2,2%	1,7%	2,1%
Interest Income/TA									
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
6,3%	7,4%	9,9%	8,0%	6,4%	7,0%	7,4%	5,8%	7,5%	7,8%
Interest Exp/TA									
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
3,6%	4,1%	6,3%	4,3%	3,3%	4,2%	4,3%	3,7%	5,8%	5,7%

Source: Authors' compilation based on Thomson's Reuters database (2018)

Summary

The subpart above overviews the very approaches of testing Hypothesis and the methodology framework of analysis and result interpretation, including the method of financial performance indicators adjustments. Wilcoxon sun rank test is going to be used for the H1 and H2 hypothesis, comparing pre and post-merger financial results. H4 will be used the same test but only on pre-merger period for evaluation financial statements of different banks. H3 hypothesis will be tested using regression analysis. Moreover, main stages of data gathering process was described as well as selection criteria for M&A transactions. Financial statements will be adjusted using the average industry results among banks that did not participate in M&A deals.

4. Empirical results

This chapter includes detailed description of the thesis' underlying data and the results of the described testing methods. The findings are discussed and put into perspective. Possible limitations concerning the findings are mentioned in the next chapter.

The first hypothesis (H1): mergers and acquisitions lead to a positive change in financial performance. The table below includes descriptive statistics of adjusted performance indicators (return on equity and return on assets) of pre and post period of merger and acquisition deals.

Table 6: descriptive statistics of adjusted financial performance results

Descriptive Statistics	N	Mean	Std. Deviation	Minimum	Maximum
Ad.Pre-ROE	49	1,15	12,23431496	-42,4	30,8
Ad.Post-ROE	49	10,06	22,6138394	-29,5	106,9
Ad.Pre-ROA	49	0,11	1,237145233	-3,2	2,8
Ad.Post-ROA	49	0,13	2,721289899	-8,6	6,1

Source: Authors' evaluation

As it can be seemed above, the average score of adjusted return of equity significantly improved in two years after the M&A deal happened. In general, each bank increased its return on equity ratio due to the M&A deal on almost 9%. Return on assets is also improved; however, the difference is not significant as ROE has. It is also need to mention that standard deviation rocketed after the M&A deal. Standard deviation shows the power of spreading from the average score and in that particular case demonstrates that there were bank, which significantly improved their performance, but at the same time, there were banks that demonstrated deterioration of performance indicators. Taking into the account the last conclusion, however the average tendency lead to average success of M&A process.

The table 7 demonstrates the results of Wilcoxon sign rank test in order to statistically prove or refuse the hypothesis. Mean results are also illustrated in that table.

Table 7: Wilcoxon sign rank test for H1

		N	Mean Rank	Sum of Ranks
Ad.Pre-ROE- Ad.Post-ROE	Negative Rank	16 ^(a)	21,25	340
	Positive Rank	33 ^(b)	26,82	885
	Ties	0 ^(c)		
	Total	49		
Ad.Pre-ROA- Ad.Post-ROA	Negative Rank	19 ^(d)	22,76	432,5
	Positive Rank	26 ^(e)	23,17	602,5
	Ties	4 ^(f)		
	Total	49		
(a)	Ad.Post-ROE < Ad.Pre-ROE			
(b)	Ad.Post-ROE > Ad.Pre-ROE			
(c)	Ad.Post-ROE = Ad.Pre-ROE			
(d)	Ad.Post-ROA < Ad.Pre-ROA			
(e)	Ad.Post-ROA > Ad.Pre-ROA			
(f)	Ad.Post-ROA = Ad.Pre-ROA			

Source: Authors' evaluation

According to the table above, the return on equity in 33 cases appeared higher after the implementation of M&A deals. The return on assets showed worse result, only in 26 cases were found strong evidence of improving the results, however the general result makes able to conclude, that in most cases M&A deals lead to better bank performance in Russia measuring by both, ROE and ROA.

Additional important factor is needed in order to accept or refuse hypothesis – the test on model reliability. For that purpose Z score and sigma value were used. According to the table below, the model makes us able to conclude that the first hypothesis that M&A deals significantly improve financial performance of banks could be accepted with 95% probability as sigmas lies under the level 0,05 for both indicators. Thus, the H1 was accepted.

Table 8: Wilcoxon sign rank test for H1

	Ad.Post-ROE - Ad.Pre-ROE	Ad.Post-ROA - Ad.Pre-ROA
Z	-2,711(b)	-0,960(b)
Asymp. Sig. (2-tailed)	0,007	0,033
Wilcoxon Signed Ranks Test		
(b) Based on negative ranks		

Source: Authors' evaluation

The second hypothesis (H2): mergers and acquisitions lead to a positive change in financial performance facilitated by tapping into synergy effects was created in order to explain the nature

of financial performance improvements of banks. The table below includes descriptive statistics of adjusted performance indicators (capital adequacy (H1), net interest margin (NIM), operational income to total assets (OI/TA), operational expenses to total assets (OE/TA)) of pre and post period of merger and acquisition deals.

Table 9: descriptive statistics of adjusted financial performance results

Descriptive Statistics	N	Mean	Std. Deviation	Minimum	Maximum
H1 Pre	48	-0,789	4,680	-7,555	17,756
H1 Post	48	-2,000	11,980	-65,711	32,834
NIM Pre	48	2,684	3,100	-1,427	11,061
NIM Post	48	3,391	6,282	-2,468	34,374
OI/TA Pre	48	3,239	4,116	-2,273	15,873
OI/TA Post	48	4,111	9,195	-5,167	57,223
OE/TA Pre	48	0,555	2,219	-4,015	8,401
OE/TA Post	48	0,720	3,815	-4,447	22,849

Source: Authors' evaluation

According to the table above, the average adjusted scores significantly improved among all financial ratios except capital adequacy, which decreased during the observed period. The reason for that could be found in the appendix 3, which shows, that in one year before the merger or acquisition, target banks suddenly shows significant worsening financial performance in capital, forming a whole in the bank equity. The more precise discussion of that fact would be analyzed in the discussion part.

Another important fact that should be mentioned here is that standard deviation rocketed after the M&A deals among all indicators. As it was discussed earlier, standard deviation shows the power of spreading from the average score. In particular case it also means, that there were banks, who could successfully exploit synergy effect from the M&A deals and there were banks that failed.

The table below demonstrates the results of Wilcoxon sign rank test in order to statistically prove or refuse the hypothesis.

Table 10: Wilcoxon sign rank test for H2

Ranks		N	Mean Rank	Sum of Ranks
Pre H1 - Post H1	Negative Rank	29 ^(a)	22,34	648
	Positive Rank	19 ^(b)	27,79	528
	Ties	0 ^(c)		
	Total	48		

Pre NIM - Post NIM	Negative Rank	23 ^(d)	25,04	576
	Positive Rank	25 ^(e)	24	600
	Ties	0 ^(f)		
	Total	48		
Pre OI/TA - Post OI/TA	Negative Rank	21 ^(g)	25,81	542
	Positive Rank	27 ^(h)	23,48	634
	Ties	0 ⁽ⁱ⁾		
	Total	48		
Pre OE/TA - Post OE/TA	Negative Rank	23 ^(j)	24	600
	Positive Rank	25 ^(k)	25,04	576
	Ties	0 ^(l)		
	Total	48		
(a)	Post H1 < Pre H1			
(b)	Post H1 > Pre H1			
(c)	Post H1 = Pre H1			
(d)	Post NIM < Pre NIM			
(e)	Post NIM > Pre NIM			
(f)	Post NIM = Pre NIM			
(g)	Post OI/TA < Pre OI/TA			
(h)	Post OI/TA > Pre OI/TA			
(i)	Post OI/TA = Pre OI/TA			
(j)	Post OI/TA < Pre OE/TA			
(k)	Post OI/TA > Pre OE/TA			
(l)	Post OI/TA = Pre OE/TA			

Source: Authors' evaluation

From the table above we can see that mean values increased due to the fact that banks generally successfully exploited synergy effect from the M&A deals. All adjusted economic ratios were increased in two years after the M&A deals except capital adequacy. However, in the case of model reliability, 3 of 4 indicators makes us able to accept the second hypothesis. In order to check that Z score and sigma were used (table 11)

Table 11: Wilcoxon sign rank test for H2

	Post H1 - Pre H1	Post NIM - Pre NIM	Post OI/TA - Pre OI/TA	Post OE/TA - Pre OE/TA
Z	-0,615(b)	-0,123(c)	-0,472(c)	-0,123(b)
Asymp. Sig. (2-tailed)	0,044	0,92	0,037	0,009
Wilcoxon Signed Ranks Test				
(b) Based on positive ranks				
(c) Based on negative ranks				

Source: Authors' evaluation

According to the table above, sigma shows that only 3 of 4 indicators are reliable for making conclusions. Net interest margin was not proper indicator for measuring the synergy effect

according to the Wilcoxon rank test. Thus, the second hypothesis could be accepted only partially as only 2 of 4 indicators demonstrated reliable positive results, one indicator demonstrated negative result and that could be possible focus of merging banks, and the one indicator was nor reliable.

The third hypothesis: strategic similarities between merging and acquiring banks lead to increased financial performance was analyzed through the regression analysis. The impact on ROE initially was measured. Then the analysis was repeated with the ROA indicator.

Before the regression analysis, the variables were checked on multicollinearity in order to be sure that data is reliable and it would be possible to achieve the significance of the model. The table below represents the multicollinearity analysis.

Table 12: Multicollinearity analysis

	Equity/Assets	NIM	Operational Income/TA	Operational expenses/TA	Size (Assets to Assets)	Pre ROE
Equity/Assets	1	0,014	0,172	0,288	0,344	-0,084
NIM	0,014	1	0,141	0,235	0,087	-0,143
Interest Income/TA	0,172	0,141	1	0,346	0,252	-0,015
Interest expenses/TA	0,288	0,235	0,346	1	0,414	-0,323
Size (Assets to Assets)	0,344	0,087	0,252	0,414	1	0,182
Pre ROE	-0,084	-0,143	-0,015	-0,323	0,182	1

Source: Authors' evaluation

According to the table below, it could be conclude that each factor does not have any connections with other factor, thus they could be included in the model.

The first model included all indicators and measured their impact on bank return on equity. According to the results of the first model, only 3 factors affected post mergers ROE: equity/assets ratio (capital adequacy), size of banks which was measure as the ratio of assets of bidder and target banks, and efficiency of banks in pre mergers and acquisitions period. However, despite the fact that general model is reliable (adj R square are enough high for that conclusion), the model 2 was relaunched without such factor as the pre ROE efficiency in order to identify is that model adaptation shows reliable data.

The second model was not reliable as the adj R squire was under the level of significance. The third model was created only with variables that were significant in the first model. The final

model demonstrates that 68% of post mergers changes in financial performance happened because of similarities between banks in terms of their general efficiency, size and capital adequacy.

Table 13: Regression analysis results

	Model 1 (Δ ROE)		Model 2 (Δ ROE)		Model 3 (Δ ROE)	
	Coefficients	P-values	Coefficients	P-values	Coefficients	P-values
Y-intercept	0,01562		0,04248		-0,00093	
Equity/Assets	0,38069	0,03733	0,37975	0,03839	0,38425	0,03246
NIM	6,48445	3,84151	6,31778	3,81276		
Interest Income/TA	-0,13613	0,18458	-0,1642	0,18175		
Interest expenses/TA	-0,08373	0,08532	-0,06218	0,08328		
Size (Assets to Assets)	-0,00697	0,03182	-0,00543	0,03102	-0,43647	0,01612
Pre ROE	0,02838	0,0134			0,04112	0,01357
adj R ²	0,55907		0,49775		0,68677	
F-value	3,78876**		8,62384*		2,47154**	

* Significant at the 0.05 level (1-tailed)

** Significant at the 0.01 level (1-tailed)

Source: Authors' evaluation

The result of the initial regression analysis was relaunched through another performing indicator – post merger adjusted changes in return on assets. According to the table above, only size of merged banks and there general efficiency affected the ROA. However, the results of previous models describe the effect of strategic similarities better. Additionally two models statistically proved that strategic similarities in terms of bank efficiency (strategy of resource allocation) and bank sizes significantly influenced the post-merger M&A financial performance.

Table 14: Regression analysis results

	Model 1 (Δ ROA)		Model 2 (Δ ROA)		Model 3 (Δ ROA)	
	Coefficients	P-values	Coefficients	P-values	Coefficients	P-values
Y-intercept	0,01285		0,01338		0,00104	
Equity/Assets	0,00355	0,52832	0,00805	0,58065		
NIM	0,20909	0,25064	0,30975	0,27816		
Interest Income/TA	0,06231	0,08972	0,05405	0,08227		

Interest expenses/TA	0,04005	0,06627	0,03418	0,07084		
Size (Assets to Assets)	-0,01877	0,02247	-0,01883	0,02136	-0,01651	0,02308
Pre ROE	0,0129	0,01192			0,01309	0,01188
adj R ²	0,51008		0,33731		0,54164	
F-value	3,89111*		1,9142		10,9255*	

* Significant at the 0.05 level (1-tailed)

Source: Authors' evaluation

The fourth hypothesis (H4): acquirers have better financial performance than the acquirees before the initiation of M&A deal between them was created in order to identify does bidder banks are looking for targets with potential for improvements and/or because of financial power, compared with targets banks, initiated these M&A deals.

The table below includes descriptive statistics of adjusted performance indicators return on equity and return on assets average in two years before the deal among the acquirer bank and its target bank.

Table 15: descriptive statistics of adjusted financial performance results

Descriptive Statistics	N	Mean	Std. Deviation	Minimum	Maximum
Bidder ROE	42	8,078058	13,31987	-19,62954	53,15048147
Target ROE	42	-23,86005	118,268	-581,3407	58,68146872
Bidder ROA	42	0,725755	1,493041	-2,773211	3,864890235
Target ROA	42	1,419244	6,251914	-8,198963	33,4959226

Source: Authors' evaluation

According to the table above, on average, acquirer had significantly higher performance in terms of ROE, but were less efficient on managing available assets. These contradictions can be analyzed without the results of Wilcoxon rank test, which are demonstrated in the table below.

Table 16: Wilcoxon sign rank test for H4

Ranks		N	Mean Rank	Sum of Ranks
Target ROE - Bidder - ROE	Negative Rank	19 ^(a)	25,37	482
	Positive Rank	23 ^(b)	18,3	421

	Ties	0 ^(c)		
	Total	42		
Target ROA - Bidder ROA	Negative Rank	18 ^(d)	24,56	442
	Positive Rank	24 ^(e)	19,21	461
	Ties	0 ^(f)		
	Total	42		
(a)	Target ROE < Bidder ROE			
(b)	Target ROE > Bidder ROE			
(c)	Target ROE = Bidder ROE			
(d)	Target ROA < Bidder ROA			
(e)	Target ROA > Bidder ROA			
(f)	Target ROA = Bidder ROA			

Source: Authors' evaluation

Wilcoxon rank test shows us that target bank appeared more profitable and efficient bank comparing with the acquirer before the M&A deals. Additionally, according to the fact that model is reliable (sigmas are less than 0,05 of both indicators, ROE and ROA), we reject the H4 and accept the alternative hypothesis: targeted banks are in general more efficient and more profitable, comparing with acquirers.

Table 17: Wilcoxon sign rank test for H4

	Target ROE - Bidder ROE	Target ROA - Bidder ROA
Z	-0,381(b)	-0,119(c)
Asymp. Sig. (2-tailed)	0,037	0,022
Wilcoxon Signed Ranks Test		
(b) Based on positive ranks		
(c) Based on negative ranks		

Source: Authors' evaluation

Summary

This chapter summarizes the previous findings, which was found during the empirical research and which were based on 75 mergers and acquisitions between only banks, happened in

the period since 2009 to 2015 in Russia. The general performance period overview was broader from 2007 to 2017.

The general performance level of target banks are higher in terms of return on equity and in terms of return on assets as well. That makes us able to reject the fourth hypothesis and to accept the alternative hypothesis. At the same time, adjusted results show us, that both target banks and acquirers had better financial performance comparing with average industry indicators.

The average post- merger and acquisition adjusted financial performance significantly improved in two year after the M&A deal happened, measure by changes in adjusted financial ratios such as ROE and ROA. In needs to mention here that, performance changes in terms of ROE showed less improvements comparing with ROE adjusted ratio. These changes were statistically significant what makes us able to accept the first hypothesis that mergers and acquisitions lead to a positive change in financial performance.

To investigate the reasons why these positive changes happened, the hypothesis of synergy effect and strategic similarities between banks were checked. According to the current empirical research, synergy effect was exploited by more than 55% of M&A deals, however there are needs in some improvements of these process: all operational financial ration demonstrated inclines after the M&A deals, however capital adequacy indicator decreased during the observed period. That result would be also discussed further and would be one of the focuses of the discussion part.

Strategic similarities impact on post merger and acquisition performance was also checked. However, the initial hypothesis was only partially accepted as most of the indicators of strategic similarities in the model did not show statistically significant impact. Only similarities in bank size and general efficiency of banks had the impact.

5. Discussions and conclusion

Firstly, this chapter observes the findings of the current work and its correspondence to previously analyzed literature and empirical findings related to the determination of merger and acquisition deals impact on bank financial performance. Finally, theoretical and practical contributions of the current study will be observed, as well as limitations of the study and directions for possible further research.

5.1 Discussion of empirical findings

The purpose of this study was the evaluation of the M&A deals impact on bank profitability. In order to achieve that goal, three research questions were formulated:

- What correlation exists between bank mergers and acquisitions and bank profitability in Russia?
- Does strategic similarities of banks influence the bank profitability changes due to M&A deals?
- Is there differences in profitability between bidder bank and target bank?

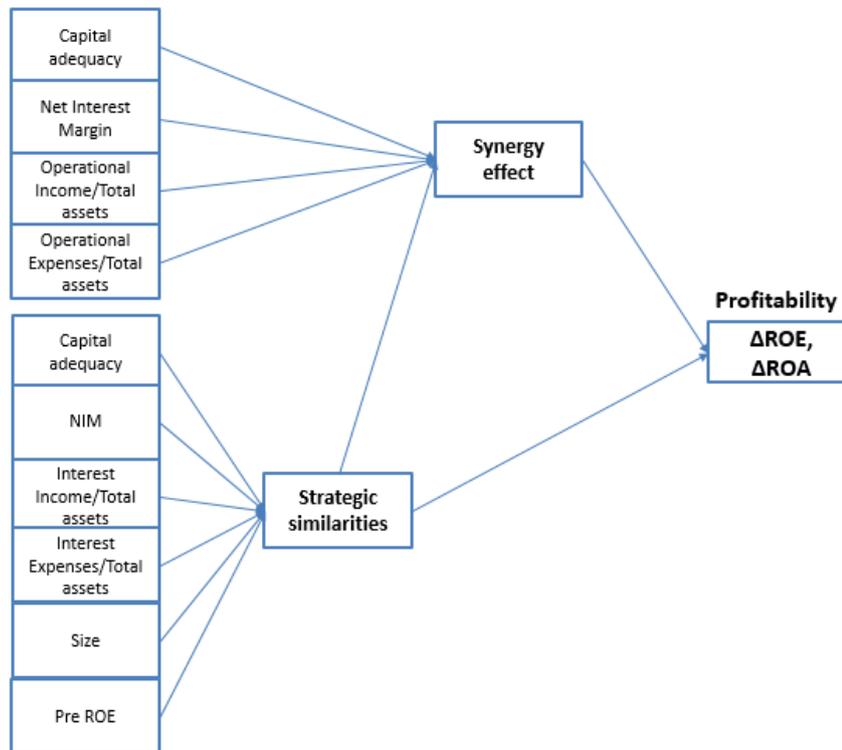
In order to answer these questions the model of M&A impact was analyzed in order to identify positive financial performance in post-merger middle term period and factors affecting these results (graph 7).

The influence of mergers and acquisitions on the bank profitability in Russia was analyzed in the current master thesis work from the point of view of Russian and international experience, academic studies and practical studies.

As a result of the analysis of international and Russian M&A experience, conclusions were drawn on trends in the banking M&A market in Russia, the types of transactions and factors affecting the success of transactions were identified.

Most of the work on that subject has a geographical and methodological one-sidedness, 80% of existing works were written before 1990 and are concentrated mainly on the banking industries in developed countries, according to Bruner (2002). The most frequent analyzes are found among the countries of the European Union, as well as the United States and Japan. Among the developing countries, the most frequent analysis is met in the countries of Latin America, particular in Brazil. Modern studies diversify their zone of attention to developing markets, particular in recent year, a large scale of researches has been created in China and the Middle East and Africa. However, one-sidedness remains in the research field in terms of methodology, most

of the work analyzes the impact of mergers and acquisitions in banks through market valuation, i.e. a priori taking into account the theory of market efficiency Bild and Runsten (2010), Fedorova E.A. and Rybalkin P. I. (2016), MacKinlay (1997), Das A., Kapil S (2012) and others.



Graph 7: the scheme of variables affecting the bank performance

Source: Author's compilation

According to the practical findings of national association of participants of stock market (NAUFOR) and their research «Russian stock market 2016: events and facts» (National Association of Stock Market Participants 2017) and theoretical researches, as an example Dumov V.K. (2009) and Ivanchenko (2016), the Russian stock market is extremely underestimated comparing with other emerging markets as well. Thus, the methodology which had as the basis the stock market price should be adopted or checked with another approaches.

The current study covered that gap and uses methodology, which in its base has the analysis of performance indicators of merged banks. It gives precise results of bank financial performance, comparing with methodology, where M&A influence is estimated by the market participants.

The improved analysis approach for the Russian banking industry was tested. It includes not only the assessment of the impact of mergers and acquisitions on the financial results of banks, where the output is given only the estimation “affected” or “not affected”. Hypotheses, which were

tested, explain the change in financial results of banks based on the theory of synergy and the theory of similarity, which is new for Russia.

Having considered the given statistical data, we come to the conclusion that hypothesis one that M&A deals between banks in Russian have the positive impact on banking profitability in the middle term was confirmed. These results completely coincide with the conclusions of Russian studies Ivashkovskaya I.V., Shamraeva S.A., Grigoriadi E.E (2009), Fedorova E.A. and Rybalkin P. I. (2016), Fedorova E.A. and Isotovaya E.I. (2014), and international studies, which had the same focus but in another geographical regions, Daniya Adeiza Abdulazeez (2016), Bild and Runsten (2010), Aminu Diyo Sheidu (2015) and Dr. Jagongo (2017).

However, among studies above, those researchers who observed exclusively banking sector, our mean results are not comparable, due to the reasons: 1) the different objects of the analysis 2) current studies is focused on M&A deals on average, provided studies focused on M&A influence depending on the year of the acquisition. Despite that fact, general result is the same. Additionally, it needs to mention that current study provides the average amount of expected positive performance changes due to the M&A deal, which is the advantage part of the current methodology. Banks are able to increase the adjusted performance results through the M&A on 9% in middle term period.

That foundation is in line with the hypothesis that mergers lead to a positive change in financial performance facilitated by tapping into synergy effects. The adjusted financial coefficient is consistently positive in the model except the capital adequacy. Thus, if a bank is able to increase the operational income ratio, e.g. by increasing the amount of revenue or by more effective use of assets (decline of assets), or decrease the operational expenses ratio, e.g. by reduction of operational costs or by more effective use of assets (decline of assets), the Wilcoxon sign rank test identifies a positive change in bank financial performance.

According to the mean change values, merged banks are on average able to improve their financial ratio, which explains why the overall performance of merged banks in the contexts of M&A improve. However, the decrease in the capital adequacy is in contrast to the synergy effects described in Altunbas and Marques (2008) in terms of a significant performance increases in equity to assets ratio. This can be explained on the basis gathered data. Target banks in approximately 50% cases in the year of the M&A deal published significant incline in the equity, often achieving the negative value. It could be connected with the outflow of bank assets and equity from the bank (grey scheme). It is possible to assume that according to the research of Mamonov M. (2018), prior to the change of leadership of the Central Bank of Russia, the average level of hidden "holes" in

the capital of the functional banks was very high - 14% of the total assets of banks system on the end of each year - and very constant in time. However, already in six months after the change of leadership of the Central Bank of Russia, the level of hidden "holes" became very rapidly declining and approaching the 4% mark by mid-2016. 12 months of the analyzed interval from July 2016 to May 2017 demonstrated that hidden "holes" stabilized at around 4%. Subsequently, that could significant influenced H1 variable, which was analyzed in the period from 2007 to 2017.

The general exploitation of synergy effect was achieved according to the Wilcoxon rank test mainly due to operational improvements in terms of cost reduction and more effective use of available assets on average during the whole observed period. However, that conclusion has some contradictions with general overview of possibility of Russian market participants of M&A deals to exploit synergy effect studied by the Rodionov and Mukhalchuk (2016), who found out that in Russia, as in all major emerging markets, M&A transactions do not create a synergy effect. At the same time Suzdaltsev P. (2017), studying as well only the synergy effect in banking industry, have similar results in the area of the synergy in banking operational activities.

These contradiction could be connected to the observed period, as current study have similar period with Suzdaltsev P., but Rodionov and Mukhalchuk's study is based on the data, which included pre and post crisis period. Additionally, the separated analyzed industry could have different results with the overall market situation. The difference in results also could happened due to different models of the estimation in the area of adjustments result. Some authors absolutely ignore the needs of adjusting financial results in middle-term and long-term period.

In order to improve the understanding of the nature of the positive effect of mergers and acquisitions on bank financial results and overcome a theoretical gap, a regression model was tested to assess the impact of strategic similarities on the final bank profitability. The basis of this thesis is one of the main concepts presented in the managerial literature on strategy, in particular, it is the strategic similarity of partner companies. Strategic similarity is expressed in the aspects of the resource allocation strategy, which is available to the company, and used as an indicator of the overall strategy estimation used by banks. At the heart of the concept of strategic similarities, the model shows that overall strategic characteristics lead to excellent merger outcomes, because firms with a similar set of competencies are best suited to fully exploiting synergies and avoiding conflicts associated with the pooling of disparate strategies, networks, people competencies.

According to the analysis, only three factors had the meaningful impact on bank profitability measured in terms of ROE: it is similarities in terms of strategy of resource allocation

in general which results general bank financial efficiency (return on equity). Second important described factor was the size of the assets. The acquired bank should have less size on order to extract the additional synergy effect on post merger profitability. The last analyzed factor determined that similarity in terms of capital adequacy also reflects on post merger results. That conclusion lies in one side with factors describing the synergy, as it was discuss above, a lot of banks in the year of acquisition were not able not only the achieve the normative level of capital adequacy but even demonstrated the negative equity value. Essentially, it influenced the future financial performance of join banks. Acquirer should improve in the short term period the bank's equity in order to comply with Central Bank's standards.

Determination of financial performance through ROA and relaunchng the model with that dependent variable demonstrated worse results in terms of statistical significance, however proved two variables significance, which affected the ROE indicator. The first meaningful factor was similarities in terms of bank sizes and the second one strategic similarity was common efficiency in managing financial resources. At the same time, Altunbas and Marques (2008) have found out that there is also dependency in interest efficiency and expenses performance. However, current study could not provided strong evidence of such interconnection, but described by Altunbas and Marques (2008) result could lead to improvements in general financial statements.

However, current study's results do not provided strong evidence of that fact. That contradiction could appeared due to the fact, that Altunbas and Marques (2008) used not only middle-term pre merger period for that estimation, but long term as well. The middle term result probably can not cover all strategic aspects of banks. That fact could be overcome through the additional analysis with the observed period for estimation period in 5 years before the merger and that aspect is one of the limitations of the current study.

5.2 Managerial implications

The theoretical contribution of the current paper lies in the area, which can be oversrved from three sides:

- The area of the research is oriented on non-public banks. There is a small number of papers that concentrate on that type of banks in Russia due to unavailability to find and compile financial data and financial results or high barriers to do that. It also needs to mention here that there is no any database contains information about non-listed Russian banks for the long period. Besides, financial data was not just analyzed, but it was evaluated through

detailed financial ratios and determined interconnections which define potential benefit from M&A deals;

- The synergy effect and the influence of strategic similarities was included inside the model of the research and partially (in the first case) and fully (in the second case) supported the positive financial influence of merged banks. Moreover, that aspect has the bigger mean, when it is taken into the account, that non-listed banks were included into that analysis. Thus, current study supports the validity of both concepts.
- Finally, current study has not only discovered positive influence of M&A deal on bank profitability, but also determined the average improvements and clarified factors affecting these changes, such as strategic similarities in terms of general financial efficiency but differ in common size of banks in terms of assets.

The practical contribution was not deprived by attention and current study's findings could be relevant for practical implications in next areas:

- The main findings contribute with practitioners in terms of their search for growth opportunities. M&A deals in banking sector lead to significant financial improvements, despite wide perspective that they lead to decreasing financial performance. It means that M&A should be included in managerial strategies as the extra opportunity for growth and daily action should always include searching for potential targets;
- The additional findings, which can be used in industry, are factors affecting the success or failure of M&A deals. Managers should look for targets with specific characteristics such as similar financial performance, but different bank size;
- Another findings lie in the area of common believe, that M&A deals lead to worsening cost efficiency. Current study does not support that believe, there was not any strong evidence of changes in operational or interest expenses.
- Finally, important foundation was also discussed and observed for managerial application. When bank falls into M&A deals it should somehow organize target financial control at least in year before the deal. There is strong evidence that bank deliberately worsen their financial condition through the withdrawal of equity from the target bank.

To sum up, it also should be mentioned that other researchers can use the current overviewed findings in order to add new variables into the model for additional factors evaluation. For instance, market power theory was not observed in the current work at all, however it could be connected with enhancing post-merger financial results. Moreover, current data sample can be

used as the starting point for further researchers who would like to increase the sample size or increase the observed period.

5.3 Limitations and further researches

The current study, essentially, has some possible limitations. First of all, the limitations concern the impossibility of obtaining many financial indicators due to limited access to information. Thus, only a limited number of factors were included in the model (for example, the amount of dividends was not included in the model), moreover, it affected the final sample. The creation of a limited sample was also facilitated by the exclusion of cross-border transactions due to the complexity of comparing different forms of financial reporting.

It is not expected that these limitations significantly influenced the quality and validity of the obtained results, due to the relatively large sample (the total number of mergers included is 75) comparing with other studies using the same approach.

Furthermore, another limitation of this work is attributed to the analyzed event window period, which was determined as two years period and observed only middle-term period. This could affected the variables significance of model of strategic similarities. According to Altunbas and Marques (2008) the banks' strategy similarity of raising funds significantly influences the overall post-merger bank performance. I do not expect that this fact could results in alternative conclusions, however, it is quite meaningful factor to analyze for right managerial actions.

Finally, provided model does not observe the market power factor. It could be the area for further improvements of the current work in order to achieve the model of M&A impact estimation from each side of the theoretical background.

The list of references

- 1) A Euromoney Institutional Investor Company. *Russia Banking Sector risks 2017/2018*. Industry Overview, London: EMIS, 2017.
- 2) Altunbas, Y. and Marques, D. (2008). *Mergers and acquisitions and bank performance in Europe: The role of strategic similarities*. Journal of Economics and Business, 60: 2008-222
- 3) Sheidu, A. D., Hassan, Y. (2015). *Impact of Forced Bank Consolidation on Return on Assets (Roa) In Nigeria: An Empirical Investigation*. Journal of business and Economic Policy: 22-34.
- 4) Banki.ru. *The discontinued credit organizations*. 2017. <http://www.banki.ru/banks/memory/> (Accessed: March 2017).
- 5) Barney, J.B. (1991). *Firm Resources and Sustained Competitive Advantage*. Journal of Management, 17(1): 99-120
- 6) Berger, N. and Humphrey, D. (1992). *Megamergers in Banking and the Use of Cost Efficiency as an Antitrust Defense*, Antitrust Bulletin. Fall, 37, pp. 541–600.
- 7) Bhaumik, S.K., Selarka E. (2012). *Does ownership concentration improve M&A outcomes in emerging markets? Evidence from India // Journal of Corporate Finance*. 2012. Vol. 18. Iss. 4. P. 717–726.
- 8) Barber B., Lyon D. (1996). *Detecting abnormal operating performance: The empirical power and specification of test statistics Journal of Financial Economics*, vol. 41, issue 3, 359-399
- 9) Bruner, R., (2002). *Does M&A pay? A Survey of Evidence for the Decision-Maker // Journal of Applied Finance*. № 12(1). P. 48–69.
- 10) Bruner, R., (1999). *An Analysis of Value Destruction and Recovery in the Alliance and Proposed Merger of Volvo and Renault // Journal of Financial Economics*. № 51. P. 125–166.
- 11) Carpenter, M. A., Davison, R. B., Devers, C. E., Haleblian, J. and McNamara, G., (2009). *Taking stock of what we know about mergers and acquisitions: A review and research agenda*, Journal of Management, Vol. 35 (3), 469-502.
- 12) Central Bank. *Banking Sector Liquidity, Monetary Policy Instruments and Other Operations of the Bank of Russia*. 2017. http://www.cbr.ru/Eng/statistics/?PrtId=idkp_br (Accessed: March 2017).

- 13) Central Bank. *Information on registration and licensing of credit institutions*. January 2018 г. http://www.cbr.ru/statistics/print.aspx?file=bank_system/inform_14.htm (Accessed: January 2018).
- 14) Coase, R. (1937), *The Nature of the Firm*, *Economica*. Nov, 4:16, pp. 386–405
- 15) Das A., Kapil S. (2012). *Explaining M&A performance: a review of empirical research*. // *Journal of Strategy and Management*. - Vol. 5, No. 3. - p. 286.
- 16) Deposit Insurance Agency. *Insurance cases*. 2017. https://www.asv.org.ru/insurance/insurance_cases/1426/ (Accessed: 7 April 2018).
- 17) Degenhard, Z., Maurizio M., (2007). *Understanding the Performance of Corporate Acquisitions*. INSEAD Business School Research Paper No. 2007/25/ST. Available at SSRN: <https://ssrn.com/abstract=1032168> or <http://dx.doi.org/10.2139/ssrn.1032168>
- 18) DeYoung, R. (1993), *Determinants of Cost Efficiencies in Bank Mergers*, Economic and Policy Analysis Working Paper 93-1. Washington: Office of the Controller of the Currency. *Journal of Economic Perspectives*. Aug.
- 19) Dumov, V.K., «Mirkin.ru.» *Financial Academy under the Government of the Russian Federation*. 2009. http://www.mirkin.ru/_docs/dumov.pdf (Accessed: April 2018).
- 20) EIU. *Russia: Banking sector risk*. June 2016 г. <http://www.eiu.com/industry/article/894357473/russia-banking-sector-risk/2016-06-15> (Accessed: March 2017).
- 21) Euromoney Institutional Investor Company, CEIC, official website - <https://www.ceicdata.com/en>
- 22) Fedorova, E. A., Rybalkin P. I. (2016). *Evaluation of efficiency of transactions on merger and absorption in the banking sphere of the Russian Federation*, ISSN 2311-8709
- 23) Girma, S., Thompson, S., Wright, P. W. (2011). *The impact of mergers and acquisitions on profitability and employee remuneration in UK manufacturing industry*. Discussion paper. no. 99/24
- 24) Golubov, A., Petmezas, D. (2013). *12 Empirical mergers and acquisitions research: a review of methods, evidence and managerial implications*. *Handbook of Research Methods and Applications in Empirical Finance*, 287
- 25) Göhlich T.R., *The Performance Effects of Mergers within the* . Twente: University of Twente, School of Management and Governance, 2012.
- 26) Haider, A., Shoaib, M., Kanwal, S. (2015). *Impact of mergers on performance of banking sector of Pakistan*, *Pakistan business review* April 2016, 60-79

- 27) Hitt M., Vaidyanath D., Pisano V. (2004). *Theoretical Foundations of Cross-Border Mergers and Acquisitions: A Review of Current Research and Recommendations for the Future*. Journal of International Management, no. 10, pp. 307–353.
- 28) Investopedia. *Acid-Test Ratio*. 2012. <https://www.investopedia.com/terms/a/acidtest.asp> (Accessed: April 2018 г.)
- 29) Ivanchenko I. S., «cyberleninka.» *Analysis of the quality of the securities market*. 2016. <https://cyberleninka.ru/article/n/analiz-kachestvennogo-sostoyaniya-rossiyskogo-rynka-tsennyh-bumag> (Accessed: 2 April 2018).
- 30) Ivashkovskaya I.V., Shamrayeva S. A., Grigoriadi E.E. (2009). *An Empirical Analysis of the Effectiveness of Corporate Diversification in Emerging Capital Markets by the Example of the BRIC Group* // Economic Journal of the Higher School of Economics. № 3. P. 360-382.
- 31) Jagongo, A., (2017), *Mergers and acquisitions on financial performance among selected commercial banks, kenya* // International Academic Journal of Economics and Finance (IAJEF) | ISSN 2518-2366. P. 17-23
- 32) Jensen, M. C. (1986) *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*. // American Economic Review. Vol. 76. № 2.
- 33) Joash G. O., M. J. Njangiru (2015), *The Effect of Mergers and Acquisitions on Financial Performance of Banks* (A Survey of Commercial Banks in Kenya)
- 34) Kemal M. U. (2011), *Post-Merger Profitability: A Case of Royal Bank of Scotland (RBS)* // International Journal of Business and Social Science, Vol. 2 No. 5
- 35) Kimberly M., Phyllis K. (2014). *Event study methodology: an overview and special considerations for African markets*. // Research Methodology in Strategy and Management. – Vol.10. – p. 73
- 36) King, D.R., Dalton, D.R., Daily, C.M. and Covin, J.G. (2004). *Meta-analyses of Postacquisition Performance: Indications of Unidentified Moderators*. Strategic Management Journal, 25: 187-200
- 37) Khusainov Z.I. (2008) *Evaluation of the effectiveness of mergers and acquisitions: an integrated methodology* // Corporate Finance. № 1. P. 12-33.
- 38) Kwan, S. H., Wilcox, J., (1999), *Hidden Cost Reductions In Bank Mergers: Accounting For More Productive Banks* // Federal Reserve Bank of San Francisco <http://www.frbsf.org/economic-research/files/wp99-10.pdf>

- 39) Kwoka J., Pollitt M. (2010). *Do mergers improve efficiency? Evidence from restructuring the US electric power sector*. *International Journal of Industrial Organization* 28 (6): 645–656.
- 40) Larionova, M.V. (2005), *Reorganization of commercial banks*, "Finances and Statistics", p. 257
- 41) Leverty, J.T., Qian Y. (2010) *Do Efficient Firms Make Better Acquisitions?* 2010 URL: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1348830.
- 42) Linder, M., Crane, C. and Dwight, B. (1992), *Bank Mergers: Integration and Profitability*, *Journal of Financial Services Research*. Jan, 7, pp. 35–55
- 43) MacKinlay, C.A. (1997), *Event Studies in Economics and Finance*, *Journal of Economic Literature*, vol. 3, no.1, pp. 13
- 44) Maksimovic V., Phillips G. (2001). *The market for corporate assets: Who engages in mergers and asset sales and are there efficiency gains?* *Journal of Finance* 56 (6): 2019–2065.
- 45) Mamonov, M., Central Bank of Russian Federation. *Hidden "holes" in the capital of banks before and after the change of leadership of the Bank of Russia*. March 2018. https://www.cbr.ru/Content/Document/File/37043/04_Mamonov_rus.pdf (Accessed: May 2018).
- 46) Milbourn T., Arnoud W.A., Boot, Anjan V. Thakor (1996), *Megamergers and expanded scope: Theories of bank size and activity diversity* // *Journal of Banking and Finance* <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.499.4476&rep=rep1&type=pdf>
- 47) Moctar, N. B., Xiaofang, C. (2014). *The Impact of Mergers and Acquisition on the financial performance of West African Banks: A case study of some selected 38 commercial banks*. *International Journal of Education and Research* Vol. 2 No. 1. Pp 1-10
- 48) National Association of Stock Market Participants. *The Russian stock market: 2017. Events and facts*. December 2017. <https://www.naufor.ru/download/pdf/factbook/ru/RFR2016.pdf> (Accessed: March 2018)
- 49) Pilloff, S. (1996), *Performance Changes and Shareholder Wealth Creation Associated with Mergers of Publicly Traded Banking Institutions*, *Journal of Money, Credit and Banking*. Aug, 28:3, pp. 383–417.
- 50) Pilloff, S. and Santomero, M. (1996), *The Value Effects of Bank Mergers and Acquisitions*, Financial Institutions Center.
- 51) Porter, M.E. (1987). *From competitive advantage to corporate strategy*. *Harvard Business Review*, 56(3): 28-46

- 52) Porter, M.E. (1996). *What is strategy?* Harvard Business Review, 96(6): 61-78
- 53) RamliIshak (2015), *Forced Bank Mergers and SME Financing* // International Journal of Management Science and Business Administration <http://researchleap.com/wp-content/uploads/2015/07/Forced-Bank-Mergers-and-SME-Financing.pdf>
- 54) Rauch, C., Hankir, Y., & Umer, M. (2011). *Bank M&A: A market power story?* Journal of Banking and Finance, 35, 2341-2354.
- 55) RBC. *LISTENING BY LIST*. 21 September 2017 г. <https://www.rbc.ru/finances/21/09/2017/59c26b239a7947fd7209611a>.
- 56) RIA. *A bank of bad assets will create from the balances "Rost Bank", "Trust", PSB and AVB*. 21 September 2017 г. <https://ria.ru/economy/20180402/1517759871.html> (Accessed: 6 April 2018).
- 57) Roberts A., W. Wallace and P. Moles (2012), *Mergers and Acquisitions* // Edinburgh Business School <https://www.ebsglobal.net/documents/course-tasters/english/pdf/h17mq-bk-taster.pdf>
- 58) Rodionov I. I., Mukhalchuk V. B. (2016). *Creation of synergy in domestic transactions of mergers and acquisitions in 2006-2014*. *Russian Management Journal*: 3-28.
- 59) Roll R. (1986), *The Hubris Hypothesis of Corporate Takeovers* // Journal of Business. Vol. 59. № 2.
- 60) Shahrur H. (2005) *Industry Structure and Horizontal Takeovers: Analysis of Wealth Effects on Rivals, Suppliers and Corporate Customers* // Journal of Financial Economics. № 76. P. 61–98.
- 61) Suzdaltsev, P., (2017), *The Valuation of Synergy Effects in Banking Mergers and Acquisitions in Russia*. Dissertation, Moscow: HSE.
- 62) Srinivasan, A. (1992), *Are There Cost Savings from Bank Mergers?* Federal Reserve Bank of Atlanta, Economic Review. Mar-Apr, pp. 17–28.
- 63) Stefan Finken (2012) *Private banking consumer perception and the influence of acquisition* // University of Gloucestershire (UK), 203-247
- 64) The Central Bank of the Russian Federation, information about registration and license of banks - http://www.cbr.ru/statistics/print.aspx?file=bank_system/inform_14.htm
- 65) Vedomosti. *Sanction of "Otkrytiy" was held in record time*. 24 December 2017 <https://www.vedomosti.ru/finance/articles/2017/12/25/746355-sanatsiya-otkritiya> (Accessed: 9 April 2018).

- 66) Wong A., Kui-Yin C., (2009). *The Effects of Merger and Acquisition Announcements on the Security Prices of Bidding Firms and Target Firms in Asia* // International Journal of Economics and Finance. 2009. Vol. 1. № 2. P. 274–283.

Appendix 1: the sample for empirical part

Deal Number	Announcement Date	Deal Status	Acquirer Name	Target Name	Target Nation	Acquirer Nation	Form of the Transaction	Target Industry	Acquirer Industry	% acquired
2842814040	09.12.2015	Completed	Troika-D Bank AO	Volgo-Okskii Kommercheskii Bank AO	Russia	Russia	Acquisition	Banks	Banks	99,99
2891916040	04.12.2015	Completed	Sovcombank PAO	Kommercheskii Mezhotraslevoi Bank Stabilizatskii i Razvitiia EKSPRESS-VOLGA AO	Russia	Russia	Acquisition	Banks	Banks	100,00
2827235040	03.12.2015	Completed	AKB Rossiiskii Kapital PAO	Sotsinvestbank PAO	Russia	Russia	Acquisition	Banks	Banks	99,99
2801732040	30.11.2015	Completed	Expobank LLC	Royal Bank of Scotland ZAO	Russia	Russia	Merger	Banks	Banks	100,00
2792753040	18.08.2015	Completed	Akb Novikombank	Fondservisbank OAO	Russia	Russia	Acquisition	Banks	Banks	100,00
2788944040	05.08.2015	Completed	Promsviaz'bank PAO	Avtovazbank OAO	Russia	Russia	Acquisition	Banks	Banks	97,28
2777563040	16.07.2015	Completed	Kommercheskii Bank Renessans Kredit OOO	Sviaznoi Bank AO	Russia	Russia	Merger	Banks	Banks	100,00
2754259040	19.05.2015	Completed	Promsviaz'bank PAO	Pervyi Ob"edinennyi Bank OAO	Russia	Russia	Acquisition	Banks	Banks	86,54
2774292040	07.07.2015	Completed	BINBANK PAO	AKKOBANK OAO	Russia	Russia	Acquisition	Banks	Banks	98,90
2774293040	07.07.2015	Completed	BINBANK PAO	Smolenskii AKB OAO	Russia	Russia	Acquisition	Banks	Banks	98,80
2753822040	14.05.2015	Completed	Genbank AO	Chernomorskii bank razvitiia i rekonstruktsii OAO	Russia	Russia	Merger	Banks	Banks	100,00
2740101040	24.03.2015	Completed	Aziatsko-Tikhookeanskii Bank Pao	ZAO Raiffeisenbank-Loan portfolio	Russia	Russia	Acquisition	Banks	Banks	100,00
2729173040	26.02.2015	Completed	Expobank LLC	OOO Mirninskiy kommercheskiy Bank MAK-bank	Russia	Russia	Acquisition	Banks	Banks	84,66
2717122040	13.01.2015	Completed	BINBANK PAO	ZAO Uralprivatbank	Russia	Russia	Acquisition	Banks	Banks	99,84
2707677040	12.12.2014	Completed	BINBANK PAO	Tver'universalbank OAO	Russia	Russia	Acquisition	Banks	Banks	94,11

2826164040	11.12.2014	Completed	BINBANK PAO	Kommercheskii Bank KEDR OAO	Russia	Russia	Acquisition	Banks	Banks	51,22
2703802040	05.12.2014	Completed	Sovkombank PAO	OOO ICICI Bank Eurasia	Russia	Russia	Merger	Banks	Banks	100,00
2699641040	24.11.2014	Completed	OOO KB Regnum	OOO Regional'nyi Korporativnyi Bank	Russia	Russia	Merger	Banks	Banks	100,00
2685673040	13.10.2014	Completed	Al'fa-Bank AO	OAO Baltiyskiy Bank	Russia	Russia	Acquisition	Banks	Banks	89,00
2667167040	22.08.2014	Completed	OAO Khanty-Mansiyskiy Bank	OAO Novosibirskiy munitsipal'nyi bank	Russia	Russia	Merger	Banks	Banks	100,00
2607702040	07.07.2014	Completed	Rost Bank AO	OOO Mirninskiy kommercheskiy Bank MAK-bank	Russia	Russia	Acquisition	Banks	Banks	84,66
2663543040	02.07.2014	Completed	Rost Bank AO	BaikalInvestBank OAO	Russia	Russia	Merger	Banks	Banks	100,00
2663567040	02.07.2014	Completed	Rost Bank AO	OAO AKB KOR	Russia	Russia	Merger	Banks	Banks	100,00
2643334040	03.06.2014	Completed	Bank Rossiiskii kredit OAO	ZAO Mosstroyekonombank	Russia	Russia	Merger	Banks	Banks	100,00
2639391040	20.05.2014	Completed	Bank Severnyi morskoi put' AO	OAO AKB Moskovskiy Oblastnoy Bank	Russia	Russia	Acquisition	Banks	Banks	97,94
2639715040	20.05.2014	Completed	Bank Severnyi morskoi put' AO	OOO KB Finans Biznes Bank	Russia	Russia	Acquisition	Banks	Banks	99,38
2569614040	22.04.2014	Completed	Rost Bank AO	OAO AKKOBANK	Russia	Russia	Acquisition	Banks	Banks	61,49
2625466040	02.04.2014	Completed	BINBANK PAO	ZAO MKB Moskomprivatbank	Russia	Russia	Merger	Banks	Banks	100,00
2604115040	23.01.2014	Completed	Rost Bank AO	OAO Smolenskiy aktsionernyi kommercheskiy bank	Russia	Russia	Acquisition	Banks	Banks	98,61
2597321040	26.12.2013	Completed	Bank Saint-Petersburg PJSC	ZAO Investitsionno-kommercheskiy bank YEVROPEYSKIY	Russia	Russia	Merger	Banks	Banks	100,00
2596554040	24.12.2013	Completed	AKB Rossiiskii Kapital PAO	Kommercheskii bank Ellips Bank OAO	Russia	Russia	Merger	Banks	Banks	100,00
2592475040	05.12.2013	Completed	OAO "Smolenskiy bank"	OAO Bank "Askol'd"	Russia	Russia	Merger	Banks	Banks	100,00
2600952040	15.11.2013	Completed	Bank Expo Capital OOO	OOO Kommercheskiy Bank IMoneyBank	Russia	Russia	Acquisition	Banks	Banks	21,55
2563628040	28.10.2013	Completed	Investitsionnyi kommercheskii bank Sovkombank OOO	ZAO GE Money Bank	Russia	Russia	Merger	Banks	Banks	100,00

2562637040	22.08.2013	Completed	VTB Group	OOO "Bank VRB Moskva"	Russia	Russia	Acquisition	Banks	Banks	99,99
2536893040	05.07.2013	Completed	ZAO Kommercheskiy Bank KEDR	ZAO "AKB Sberezheniy i Kredita"	Russia	Russia	Acquisition	Banks	Banks	100,00
2506198040	19.03.2013	Completed	OAO Aktsionernyi Kommercheskiy Bank Probiznesbank	OAO kommercheskiy bank "Poydem!"	Russia	Russia	Acquisition	Banks	Banks	48,01
2482945040	28.12.2012	Completed	OAO "Kommercheskiy investitsionno-trastovyi bank Kazanskiy"	OAO "Kommercheskiy investitsionno-trastovyi bank Kazanskiy"	Russia	Russia	Acquisition	Banks	Banks	100,00
2481749040	25.12.2012	Completed	Expobank LLC	OOO KB "Stromkombank"	Russia	Russia	Merger	Banks	Banks	100,00
2597982040	02.10.2012	Completed	BINBANK PAO	ZAO "Innovatsionnyi stroitel'nyi bank Bashinvest"	Russia	Russia	Merger	Banks	Banks	100,00
2430490040	02.07.2012	Completed	Expobank LLC	ZAO Bank "VestLB Vostok"	Russia	Russia	Acquisition	Banks	Banks	100,00
2426867040	18.06.2012	Completed	Expobank LLC	OAO "Sibirskiy bank razvitiya i biznesa"	Russia	Russia	Merger	Banks	Banks	100,00
2389231040	15.02.2012	Completed	OAO AKB Bank Moskvyy	OAO ROSSIYSKIY NATSIONALNIY KOMMERCHESKIY BANK	Russia	Russia	Acquisition	Banks	Banks	54,99
2355915040	20.10.2011	Completed	OAO BANK URALSIB	OOO "KB BNP Pariba Vostok"- Retail loan portfolio	Russia	Russia	Acquisition	Banks	Banks	100,00
2366659040	16.09.2011	Completed	OAO "Kommercheskiy investitsionno-trastovyi bank Kazanskiy"	OAO "Norvik Bank"	Russia	Russia	Merger	Banks	Banks	100,00
2342732040	26.07.2011	Completed	OAO "Bank Narodnyi Kredit"	OAO AKB "Khakaskiy Respublikanskiy Bank - Bank Khakasii"	Russia	Russia	Acquisition	Banks	Banks	100,00
2326614040	06.07.2011	Completed	OAO Kommercheskiy bank "AB Finance"	OAO "Aktsionernyi Bank Pushkino"	Russia	Russia	Merger	Banks	Banks	100,00
2315663040	11.05.2011	Completed	OAO "AKB Moskovskiy Oblastnoy Bank"	ZAO "Respublikanskiy Bank"	Russia	Russia	Acquisition	Banks	Banks	100,00
2290359040	28.04.2011	Completed	Bank VTB PAO	OAO "TransKreditBank"	Russia	Russia	Acquisition	Banks	Banks	59,39

2291783040	10.03.2011	Completed	ZAO "AKB Sberezheniy i Kredita"	OAD "Stolichnyi Torgovyi Bank" {STB}	Russia	Russia	Acquisition	Banks	Banks	100,00
2190694040	09.12.2010	Completed	Vostochnyi ekspres bank PAO	ZAO "Santander Consumer Bank"	Russia	Russia	Merger	Banks	Banks	100,00
2225806040	27.09.2010	Completed	OOO "KB Interkommerts"	OOO "Evrazbank"	Russia	Russia	Merger	Banks	Banks	100,00
2219298040	09.09.2010	Completed	OAO "NOMOS-BANK"	OAO Khanty-Mansiyskiy Bank	Russia	Russia	Acquisition	Banks	Banks	52,50
2211527040	12.08.2010	Completed	Aktsionernyi Bank Rossiia AO	OAO "Sobinbank"	Russia	Russia	Merger	Banks	Banks	100,00
2203588040	15.07.2010	Completed	OAO "Stolichnyi Torgovyi Bank" {STB}	ZAO "STB"	Russia	Russia	Merger	Banks	Banks	100,00
2201388040	12.07.2010	Completed	OAO Khanty-Mansiyskiy Bank	OAO "Novosibirskiy Kommercheskiy Munitsipal'nyi Bank"	Russia	Russia	Acquisition	Banks	Banks	51,76
2194510040	22.06.2010	Completed	Akb Novikombank	ZAO KB "Lada-Kredit"	Russia	Russia	Acquisition	Banks	Banks	100,00
2224401040	28.05.2010	Completed	Vostochnyi ekspres bank PAO	OAO "Rostpromstroybank"	Russia	Russia	Merger	Banks	Banks	100,00
2183445040	23.04.2010	Completed	OAO "Bank OTKRYTIYE"	OAO "Bank Petrovskiy"	Russia	Russia	Acquisition	Banks	Banks	55,00
2160705040	01.03.2010	Completed	Aktsionernyi Bank Rossiia AO	ZAO "Gazenergoprombank"	Russia	Russia	Merger	Banks	Banks	100,00
2157536040	18.02.2010	Completed	OAO "AKB Rosbank"	Banque Societe Generale Vostok	Russia	Russia	Merger	Banks	Banks	100,00
2196875040	18.02.2010	Completed	OAO "AKB Rosbank"	ZAO "Kommercheskiy Bank Del'taKredit"	Russia	Russia	Merger	Banks	Banks	100,00
2196945040	18.02.2010	Completed	OAO "AKB Rosbank"	OOO "Rusfinans Bank"	Russia	Russia	Merger	Banks	Banks	100,00
2157334040	11.02.2010	Completed	Mezhtopenergobank PAO	OAO Bank "Aleamar"	Russia	Russia	Merger	Banks	Banks	100,00
2151464040	27.01.2010	Completed	Aziatsko-Tikhookeanskii Bank Pao	OAO "Kamchatprombank"	Russia	Russia	Acquisition	Banks	Banks	100,00
2132428040	26.11.2009	Completed	OAO "NOMOS-BANK"	OOO Kommercheskiy Bank "Uran"	Russia	Russia	Acquisition	Banks	Banks	75,00
2123923040	30.10.2009	Completed	Vostochnyi ekspres bank PAO	OAO "Kamabank"	Russia	Russia	Acquisition	Banks	Banks	59,95
2119032040	15.10.2009	Completed	Nota-Bank PAO	OOO "Kommercheskiy bank Vityaz"	Russia	Russia	Merger	Banks	Banks	100,00
2104148040	31.08.2009	Completed	OAO KB "Sotsial'nyi Gorodskoy Bank"	OAO KB "Regional'nyi Kreditnyi Bank"	Russia	Russia	Acquisition	Banks	Banks	100,00

2103807040	27.08.2009	Completed	Vostochnyi ekspress bank PAO	ZAO "Dvizheniye Bank"	Russia	Russia	Merger	Banks	Banks	100,00
2085071040	22.06.2009	Completed	Kommercheskii Bank Iuniastrum OOO	OOO KB Bank Kipra-credit portfolio	Russia	Russia	Acquisition	Banks	Banks	100,00
2079027040	01.06.2009	Completed	ZAO Belgorodskiy Aktsionerniy Kommercheskiy Doroshniy Bank BelDorBank	ZAO Kommercheskiy Bank Russkiy Narodnyi Bank{ZAO KB Rusnarbank}	Russia	Russia	Merger	Banks	Banks	100,00
2068890040	24.04.2009	Completed	OAO "Mezhdunarodnyi Bank Torgovovo Sotrudnichestva"	Bank Severnyi morskoi put' AO	Russia	Russia	Merger	Banks	Banks	100,00
2065047040	24.02.2009	Completed	Vostochnyi ekspress bank PAO	OAO Etalonbank	Russia	Russia	Merger	Banks	Banks	100,00
2045349040	22.01.2009	Completed	OAO Aktsionerniy Kommercheskiy Bank Probiznesbank	OAO Gazenergobank	Russia	Russia	Acquisition	Banks	Banks	80,20

