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ORIGINAL SCIENTIFIC PAPER

Post-merger Performance in Financial Service Industry: A Case of the Republic of Serbia

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ABSTRACT
Understanding consumers' needs implies creating an adequate offering, which leads to good and institutions after mergers and acquisitions (M&A) with foreign organisations in the Republic of Serbia. The main actors in these M&A activities were banks. Our research and analysis cover the period from 2002 when M&A processes were intensified by the end of 2017. The results obtained indicate that the arrival of foreign banks led to the consolidation of the Serbian financial services market. Numerous strategic advantages have been achieved, and a lot of weaknesses from the past have been eliminated. However, when analysing the most important profitability ratios (ROA, ROE, NIM), a slightly different picture is obtained. Compared with the banks that came through greenfield investments and a group of domestic banks, this group of banks made slightly lower performances.

Key words: *mergers and acquisitions, post-merger performance, financial service industry, banks, Serbia*

JEL Classification: G21, G23, G34

INTRODUCTION

The arrival of foreign banks on some national financial market is a form of cross-border mergers. Over the past thirty years, the permanent growth of cross-border M&A has been noticed, especially in the banking sector, which can be seen from the data presented in Graph 1.

A more visible rise in the volume of M&A in the European banking sector began in the 1990s. Especially in the period after 1999, with certain oscillations (primarily in the period between 2001-2004 and during the global financial crisis), there is a rapid growth of M&A banks when, European megabanks such as BNP Paribas, BBVA, Intesa BCI, UniCredit… emerge as mega-mergers. At the same time, the M&A cross-border orientation are gaining momentum. Namely, when banks were left without major development opportunities on the national level, they turned to cross-border M&A. Within that, the EU banks have directed a significant part of their activities to the markets of Central and Eastern Europe countries in transition. This trend, although with a certain delay comparing to other transition countries, did not overleap Serbia in which many foreign banks became present precisely through various forms of M&A's.

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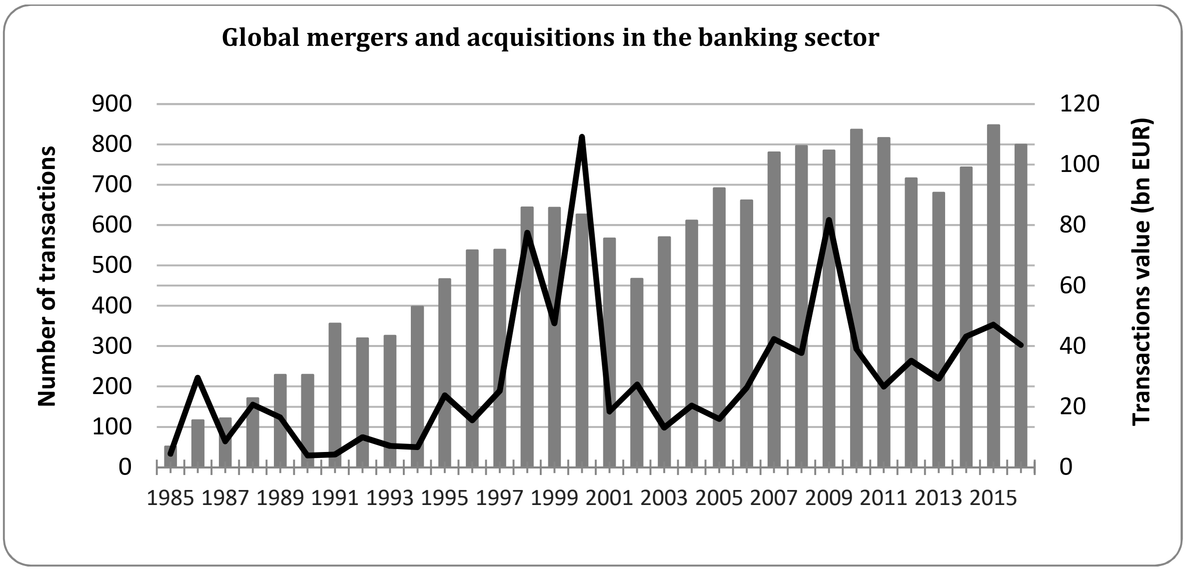

Graph 1. Overview of M&A in the banking sector in the period 1986-2016

Source: IMAA, Institute for Merchants, Acquisitions and Alliances, www.imaa-institute.org

In the beginning, we need to give a few introductory remarks on the changes that have taken place in the banking system of the Republic of Serbia in the last twenty years. In the period after 2000, the banking sector of Serbia has undergone a series of fundamental changes, of which the most significant is related to major changes in the banking ownership structure. At one point, more than 100 banks operated at the banking market in Serbia, and at the beginning of 2000, 84 banks had permission to operate. Almost 90% of this number were banks with predominantly state-owned capital. Only a few years later, after major transitional changes, the total number of banks almost halved. The banks with a majority share of foreign capital appeared, and the share of banks with state capital was dropping drastically. The mentioned major changes in the Serbian banking structure were the result of two processes that took place in parallel. On the one hand, work permits were issued to interested foreign banks, and on the other hand, privatisation of existing state-owned banks was carried out (Erić, Stošić & Dapčević, 2018).

Along with an increase in the number of M&A transactions and their total value, the scientific interest of a large number of researchers willing to devote themselves to research in this field has grown. Namely, a number of open questions, regarding the motives and ways of foreign banks entering into the Serbian market, the benefits they bring for clients, as well as the analysis of their business success degree, were raised before them. The motivation for this research was found in the fact that so far there are not too many researches that dealt with comparative analysis of the performance of certain categories of banks within the financial system of the Republic of Serbia.

The key issues that we have tried to answer in this paper are the following: Whether, and how successful they operated after being taken over by foreign banks? Whether and to what extent did the method of entering reflect on the results of their operations in the later period? What are the comparative results of the operations of individual banking sectors (domestic - DB, "entered" into the banking sector through greenfield investments - GB and those that came through the M&A process - M&A)? Ultimately, but not least, the post-merger performance of banks in the Serbian financial market?

The text is organized in several parts. In the first part, we presented a review of foreign and domestic literature in the field of M&A performance studies. The second part presents an overview of the research methodology and the sample used for analysis. The third part of the paper is devoted to a comparative statistical analysis of the basic business performance of certain segments of the banking sector in Serbia. Finally, in the fourth part of the paper, within the conclusions, the assessment of the performance of certain segments of the banking sector of Serbia was presented, with a special emphasis on the analysis of the operations of banks created through the M&A process.

LITERATURE REVIEW

Mergers and Acquisitions (M&A) analysis in the financial sector attracts the attention of a large number of researchers. Over the past twenty years, a significant number of researches were focused on the issue of these activities in the banking sector of transition countries. Namely, during the period of intensification of the process of globalisation, especially from 1995-2006, about one-third of M&A's of Western European banks pertained to their transactions in European countries in transition (Report on financial structures, 2016). This has led to an intensification of research into the motives, goals, and success of these M&A's.

On the banking market of the countries in transition, including the countries of South-eastern Europe, reforms that were reflected in the privatisation of state banks and the opening of the domestic financial sector to foreign investors were implemented. Consequently, in a relatively short period, foreign-owned banks became dominant in practically all Central and Southeast European countries. This trend has been present since the middle of the last decade of the last century to the present day, which can be seen in the following table:

Table 1. The trend of foreign banks ownership shares growth

Central Europe					**Southeast Europe**				
Period/ Rate %	**1995**	**2000**	**2005**	**2010**	**Period/ Rate %**	**1995**	**2000**	**2005**	**2010**
Czech Republic	15.5	65.4	84.4	84.8	Bulgaria	<1	75.3	74.5	84.0
Hungary	36.8	67.4	82.6	81.3	Croatia	<1	84.1	91.3	91.0
Poland	4.4	72.6	74.3	72.3	Romania	<1	46.7	59.2	84.3
Slovakia	32.7	42.7	97.3	91.6	Serbia	<1	<1	66.0	72.5
					Slovenia	4.8	15.3	22.6	29.5

Source: Bonin et al. (2014)

Two basic groups of factors decisively influenced these two tendencies. On the one hand, it is a matter of extensive transitional changes in the poorly developed banking markets of the Central and Eastern Europe countries, characterized by intense privatization and restructuring processes (Bonin et al., 2005, Estrin et al., 2009) and the ability of foreign "players" to enter these markets. On the other hand, there are "internal" factors that have determined the operation of banks in national markets. This was primarily related to the limited possibilities of achieving higher profits, the growth and expansion prospects through the conquest of new markets and the rapid increase in the placement of services, the implementation of economies of scale, risk diversification, customer tracking, etc.

In addition to researching the motives and goals for M&A implementation, another attractive area for researchers was to analyse the effects of M&A transactions undertaken, and the assessment of their performance. Namely, a large number of banking M&A in the developed countries has not yielded the expected results. The 2003 Merrill Lynch and the 2001 Capgemini studies have shown that from 1990-2000, large bank deals have performed worse than smaller ones and that 50 per cent of financial services mergers eroded shareholder returns (Moyer, 2009).

There are different ways to measure the performance of post-merger integration activity in the banking industry. Very often, this is done by comparing the banks business performance before and after M&A. Surprisingly, most studies that compared performance before and after the merger process did not reveal improved performance. In the study (Ferrier et al., 2013), over two thousand M&A in the US were analyzed between 1988 and 2009, and it was empirically determined that the performance of banks after a status change, in many cases did not improve, but on the contrary deteriorated. Other surveys (Kama, 2007) pointed to opposite results in banks' business after M&A.

Two papers that proved that banks with majority foreign capital operated more effectively than domestic competitors are the best evidence that there are very contradictory opinions on the post-merger profitability of banks. Thus, Bonin et al. (2004) in their work on the sample of 67 banks in the economies of the six transition countries (Bulgaria, Czech Republic, Hungary, Croatia, Poland and Romania) in the period from 1994 to 2002 show that foreign-owned banks are cost-efficient and provide a higher level of service than domestic banks. Kraft et al. (2006) confirmed this thesis, indicating higher efficiency of banks in majority foreign ownership in Croatia in relation to domestic banks. The analysis covers the period from 1994 to 2000 on the market where 43 banks operated. The mentioned authors conclude that the findings from work certainly support the justification of the process of selling state-owned banks to foreign strategic investors or the opening of the local market for the entry of foreign banks.

Fixer & Zieschang (1993) stated that there are "three measurement methodologies on bank efficiency: the Econometric Frontier Approach, the Data Envelopment Approach and the Thick Frontier Approach" (Fixer & Zieschang, 1993, p. 438). Through these three approaches, the evaluation of the technical and allocative efficiency of banks is carried out. In order to improve and operationalise, they went a step ahead and developed the "index number approach" that takes into account all three approaches. Unfortunately, this index is inapplicable in our conditions. The main reason lies in the lack of adequate data, especially ones from the financial market, which is still "shallow" and "narrow". Hence, the focus of the research in this paper is somewhat narrower than the area of application of the mentioned approach.

According to Altunbas & Ibáñez (2004), the analysis of the post-merger performance of banks practices two types of empirical methods. The first relates to an analysis of the performance of newly created institutions by comparing the movement of their most important financial indicators in the financial statements. The second refers to the analysis of changes in the value of certain parameters in the financial markets.

Generally speaking, all M&A effects studies involve two sets of methodological approaches: event studies and comparisons of pre-merger and post-merger performance (Erić, Stošić & Dapčević, 2018).

Event studies predominantly focus on the impact that the M&A announcement has on stock price movements. Based on a sample of 1,320 European M&A conducted between 2003 and 2012, Alsharairi et al. (2012) studied the different post-merger performance and process implementation effects. One of the newer papers in this group is the research by Kyriazopoulos, Drymbetas (2015), which includes a sample survey of 118 M&A transactions conducted in Europe between 1996 and 2010. They compared the stock price movements on the day of the transaction announcement and after a certain period (3 and 10 days after the event). It was shown that the prices of the shares of the banks that were the target of the takeover had positive returns above the average, while the shares of the banks that initiated the M&A processes did not significantly respond. For the application of this methodology, a necessary precondition is an efficient capital market and a large number of publicly available information. This group of methods is hardly applicable in the domestic financial system, where the capital market is still in its initial phase of development, with low transparency and low liquidity.

The second group of methods is related to the analysis of the financial performance of the combined banks before and after the realised transaction. Hagendorff et al. (2008) in their study suggest that shareholders of the bank that undertakes acquisitions (or mergers), expect to be rewarded for taking the risk of entering into these operations, especially if these operations take place outside their home countries. Huizinga, Nilissen & Vander (2001), on a sample of 52 horizontal European banking mergers, showed that these activities led to an increase in cost efficiency, but not a significant increase in profitability. The period in which M&A activities were analyzed was from 1994-1998. The results showed that the effects of economies of scale were achieved, which affected the reduction of total costs and increased operational efficiency. However, the vast majority did not lead to a significant improvement in financial performance, above all, profitability.

Most authors who were researching post-merger performance observed them based on profitability comparison a couple of years after the transaction was completed. According to Vennet (1996), "the traditional measures of profitability are return on equity (ROE) and return on assets (ROA)". According to this author, in the analysis of banking performances ROE requires a special review, bearing in mind that "bank capital funds are subject to capital adequacy standards" (Vennet, p. 1537). He points out that the level of costs and revenues strongly influence the profitability of banks. In his analysis, which covers the sample of 492 acquisitions realised in the last decade of the 20th century (of which 70 were cross-border), he uses certain ratio related to their movement (labour cost ratio and operating expense ratio). His analysis showed that in the short run, cross-border M&A does not bring a significant increase in profitability. This is explained by the need for larger investments, more aggressive appearance in new markets, which has implications on the level of interest rates, i.e. revenues and expenditures.

Kemal (2011) has a similar approach to measuring post-merger profitability. He uses public data from the financial statements by calculating the appropriate ratio on the Royal Bank of Scotland case, following the takeover of a local bank in Pakistan. This author compares a group of profitability ratios a few years before the M&A transaction and a few years after takes the following ratios - ROA, ROE, Gross Profit Margin, Net Profit Margin, Pre-Tax Profit Margin and Operating Profit Margin. The study covered only one bank, and the results unambiguously showed that the mentioned M&A did not lead to increased profitability.

The process of mergers and acquisitions in the banking sector of Serbia was the subject of research by a number of domestic authors (Dinkić & Jelašić 2001; Kontić & Kontić, 2009; Janjić & Lukić, 2009, Marinković & Ljumović, 2011; Barjaktarević & Paunović 2012; Erić & Đukić 2012, Savović 2016, Dimić & Barjaktarević 2017, Erić, Stošić & Dapčević 2018, etc.). A large number of these papers dealt with the mergers and acquisitions within the banking sector of Serbia in the light of transition and privatisation, and they mainly point to numerous changes (and benefits) brought by the entry of foreign banks (e.g. Eric & Stošić, 2012; Stošić & Domazet 2014).

A part of the papers focused on the analysis of the motive for the foreign bank's acquisitions on the local market. According to the research (Marinković et al., 2011, pp. 527-528) the most important motives at the time of deciding on the entry of foreign banks into the Serbian market, derived from the theory of profit growth and the use of market opportunities. That is a search for new clients, high competition on the market of the country of the capital origin, high-interest margin, as well as the unused borrowing potential of enterprises and the population on the capital market. The rank of the motive changed after entering the market, and at the time when the survey was carried out. As the most important individual factors, risk diversification, high-interest margin, unused borrowing potential of companies and population in the capital market, as well as the search for new clients, have arisen (Domazet & Stošić 2013).

According to the authors' findings, the problems of comparative analysis of bank performance, depending on the model and origin of ownership, were not subject to studies that are more detailed. This is precisely the focus of this paper, above all, with the aim of identifying the degree of success of the post-merger performance of the banking sector of Serbia.

METHODOLOGY OF RESEARCH AND SAMPLE

For this work, the official balance sheet data of banks that operated in the banking sector of Serbia in 2004 were used. The sectoral averages, according to the indicators, were calculated based on aggregate balance data published on the National Bank of Serbia (NBS) website.

The survey sample represents 18 major banks, with an individual market share of more than 1% of the balance sheet assets of the banking sector at the end of the observed period. The sample excluded banks with negligible market share (less than 1% of the balance sheet assets of the banking sector), that is, banks that withdrew from the market or were shut down during the observed period.

At the end of the observed period, 18 banks from the sample accounted for 95% of the total balance sheet assets of the Serbian banking sector. For comparison, in 2012, they participated with 91%, in total assets; 2008 - 89%, 2005 - 80%, and in 2004 they accounted for 74% of the total balance sheet assets of the banking sector. By pointing to this data, we want to underline the fact that this is a representative sample. On the other hand, a tendency of concentration within the banking structure of Serbia can be perceived at the very beginning.

Banks are divided into three groups based on the ownership structure and the way of creation. In particular, we took care to identify the group of banks that had significant M&A activities in the mentioned period. Therefore, the subject of research in this paper consists of three groups of banks:

- I group - Foreign banks that entered the Serbian banking market through a Greenfield or the purchase of an existing domestic small bank, which practically represents Greenfield Investment (GF).
- II group - Foreign banks that have entered the market by purchasing or merging with existing private or state banks, or essentially through the real mergers and acquisition (M&A), and
- III group - Domestic banks in state and private ownership (DB).

The first group includes all foreign banks that entered the Serbian market through the GF or the purchase of an existing small bank to obtain a license for doing business and afterwards did not participate in significant M&A. This group consists of[1]: *Société Générale* bank (GF / 1977 – representative office/ 1991 - corporate/ 2001 - retail), *Raiffeisen* bank (2001 GF), *Procredit* bank (2001 GF), *HVB/Unicredit* bank (2001 GF/ 2005 *Eksim* bank), *Hypo /Addiko* bank (2002 *Deposit* bank), *Volks/Sber* bank (2003 *Trust* bank).

The second group includes foreign banks that have entered the market by purchasing existing private or state-owned banks with a significant market share, or through massive privatisation of state-owned banks. This group includes[2]: *Banca Intesa* (2005 *Delta* bank, 2007 *Panonska* bank), *Eurobank* (2003 *Post bank*, 2006 *National Savings* bank), *Alpha* bank (2005 *Jubanka*), *Vojvođanska* bank (2006 *NBG* bank, 2017 *OTP* bank), OTP (2006 *Niška, Zepter, Kulska* bank),

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[1] Note: In 2001, two more GF licenses were issued to Greek banks, namely *Alpha* and *NBG*. These banks subsequently participated in large privatizations of state banks, and were in another group of foreign banks.

[2] Due to the fact that there is a limited availability of the available balance sheet data for the banks that merged, for the period before the M&A, the following available balance sheet data were used during the analysis: *National Savings Bank* for *Eurobank* before 2006, *Kulska* Banka for *OTP* before 2006, Vojvođanska Bank for *NBG -Vojvođanska* before 2006, *Jubanka* for *Alpha* Bank before 2005, *Continental Bank* for *NLB* bank before 2006.

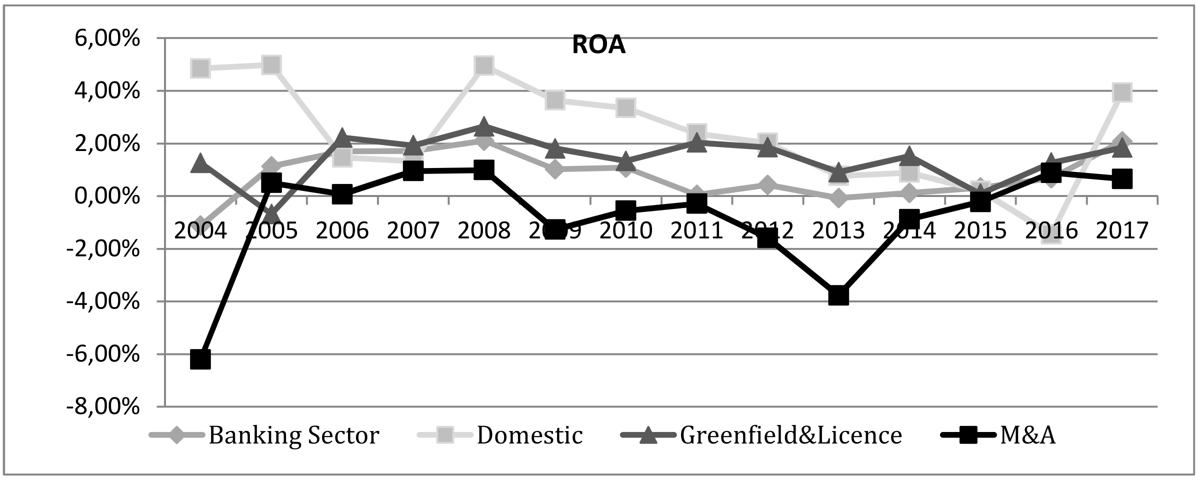
Erste bank (2005 *Novosadska* bank), *Credit Agricole* bank (2005 *Meridian* bank), *Piraeus* bank (2005 Atlas), *NLB/LHB* bank (2003 *LHB* bank, 2006 *Continental* bank).

The third group includes domestic banks in state and private ownership (DB). This group consists of only three domestic banks in the sample: 1. *Komercijalna* bank, 2. *AIK* bank and 3. *Poštanska Štedionica* bank. At the end of the observed period, they stand for a representative sample with over 95% of the assets of domestic banks, while the remaining domestic banks are not statistically significant (*Jubmes*, *MTS Bank*, *Srpska Banka*, as well as *Direktna* bank, which becomes significant only after the observed period and the takeover of *Piraeus* bank).

PERFORMANCE OF THE BANKING SECTOR OF SERBIA IN THE PERIOD 2004-2017

Profitability indicators

In the general assessment of profitability trends measured through asset yield (ROA), there is high volatility during the analysed period. Perhaps surprisingly, it is noticeable that at the very beginning of the observed period, domestic banks achieved high profitability rates, while both categories of foreign banks were below the average. The reason for lower profitability indicators for a group I - GF banks is, among other things, the sharp rise in assets, while in the other group of banks - M&A is characterised by high reserves and high operating costs, which also diverts the sector average into a negative zone. Nevertheless, it should be noticed that the reason for a slightly higher profitability indicator with domestic banks lies partly in the fact that the sample of domestic banks was "purged" of bad banks that went into bankrupt during the period.



Graph 2. Comparative Overview of Profitability Indicators – Return on Assets (ROA) in the period 2004-2017

Note: ROA *Return on Assets=PBT*/Avg. Assets* *PBT available instead Net Profit; *Source:* calculation of the author based on official data from the NBS - Financial reports of banks: https://www.nbs.rs/internet/cirilica/50/50_5.html

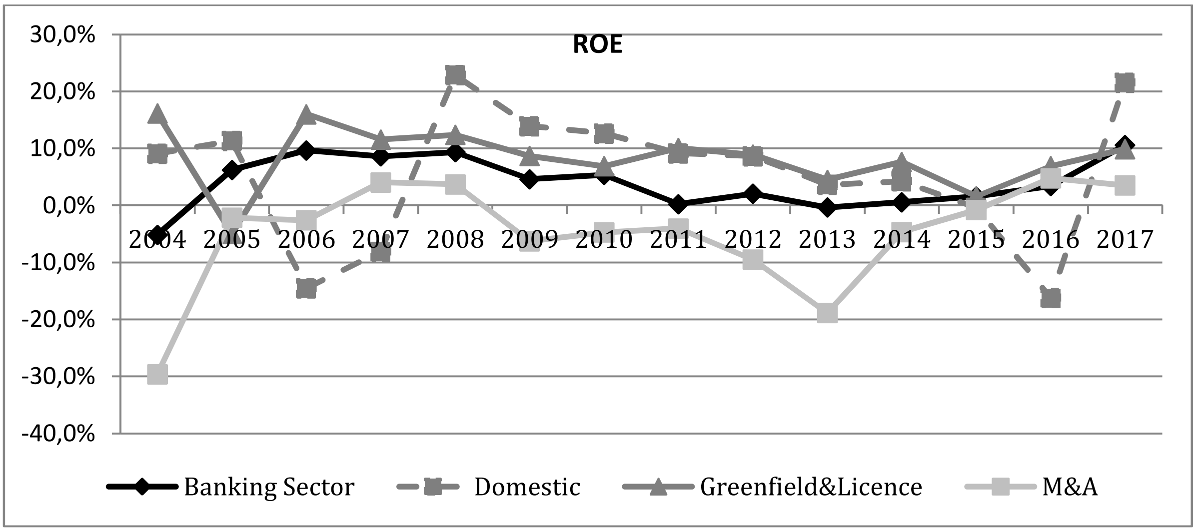
However, since 2006, GF banks have begun to achieve top-up profitability. In contrast, the M&A group of foreign banks had a profitability level that was below the market average throughout the analysed period. Particularly unfavourable results of M&A groups of foreign banks were recorded in 2013, when the overall average of the entire banking sector was negative, due to the loss of M&A banks (primarily due to high reserves and operating costs).

Since the relationship between capital and assets for all banks is fairly stable and moving in the same ratio, the other important parameter of measuring the profitability of banks - return on equity (ROE) has moved in approximately the same range. Namely, as well as the previously analysed profitability indicator - ROA, return on equity (ROE) also shows volatility in the observed period. The average of the sector at the beginning of the period is in the negative zone on account of the loss of the M&A group of banks due to the high provisioning and operating costs, which was repeated in 2013.

When it comes to returning on equity (ROE) of the M&A group of banks, it is below the average of the total banking sector of Serbia in the observed period. Even when this group operated in a positive zone, there was a constant presence of high reservations and operating costs, which reduced profit.

The presence of high reservations and operating costs, in particular, state-owned domestic bank, dropped the average of this category during 2006 and 2007 into a negative zone, which was repeated at the end of the observed period.

During the period, foreign GF banks mainly showed higher profitability (except for 2005 due to high operating costs) because they were not burdened with high reserves and costs associated with M&A activities. In achieving this result, they were not hindered by the constant significant increase in capital compared to the other two groups, which was especially expressed in the first half of the observed period.



Graph 3. Comparative Overview of Profitability Indicators - Return on Equity (ROE) in the period 2004-2017

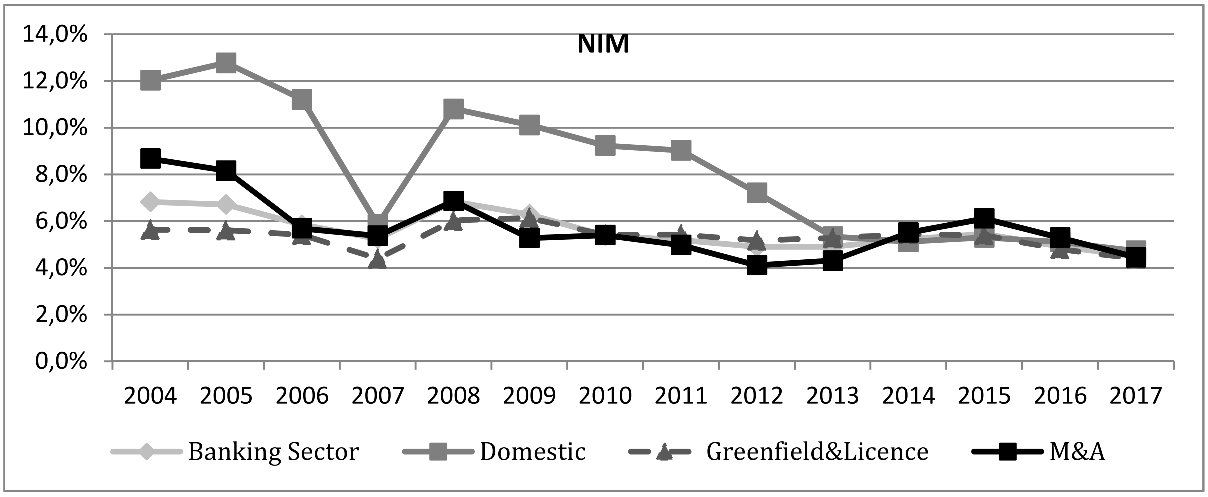
Note: ROE Return on Equity=PBT*/Avg. Equity *PBT available instead Net Profit; *Source:* calculation of the author based on official data from the NBS - Financial reports of banks: https://www.nbs.rs/internet/cirilica/50/50_5.html www.nbs.rs

Similar to the previous two ratios, the third key profit indicator - Net Interest Margin (NIM) has diverse values over the period observed. What is generally observable is that highly capitalised banks, as well as banks oriented to retail and entrepreneurial jobs, achieve better value for this indicator. The reason is that capital does not generate interest expense, and the Retail sector on average has a higher interest income.

The NIM analysis for three groups of banks points to very different values. Domestic banks, as already established on the market, with a large client base in the Retail sector, earn high net interest income (except for 2007, when the lower net interest income of top performers in this segment pushes the indicator down to the average). On the other hand, the sharp rise in foreign banks' assets affects below the average results of GF and M&A banks in the period after the takeover of local banks. The reverse effect for these two groups of foreign banks has aforementioned the deleveraging process that took place in 2013.

In the last third of the observed period, increased competition on the market, as well as historically low-interest rates, pushed this indicator downwards and make all three categories of banks correlate with the average.

Conducted analysis of key profitability ratios of the banking sector indicates the high profitability of the domestic banking sector until the outbreak of the global financial crisis. After that, there is a sharp decline in profitability for all three groups of banks observed. The profitability of banks after the crisis was not at a satisfactory level. This was also contributed by the high share of "bad" loans (NPL in certain years ranged to more than 20%). As a rule, such placements demanded far larger reserves (provisions), which immediately affected the decline in profit (net income), which further affected the decline in return on assets. At the same time, interest income decreased, which unfavourably affected the overall profitability of the banking sector.



Graph 4. Comparative Overview of Profitability Indicators – Net interest margin (NIM) in the period 2004-2017

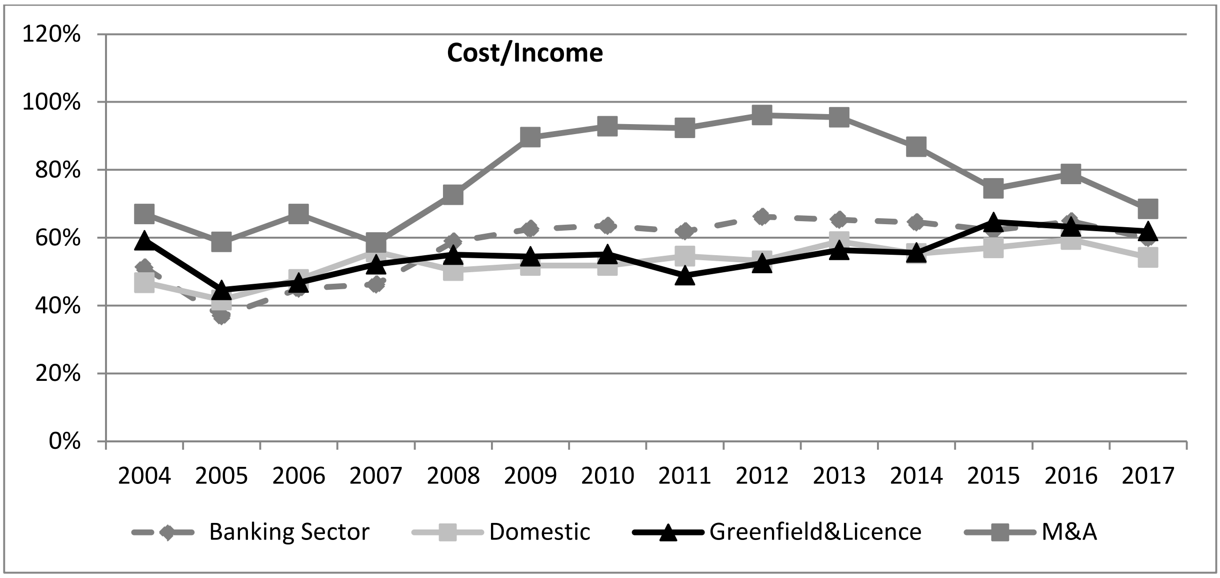
Note: NIM = Net Interest Income/ Avg. Interest Bearing Assets; *Source:* calculation of the author based on official data from the NBS - Financial reports of banks: https://www.nbs.rs/internet/cirilica/50/50_5.htmlwww.nbs.rs

A comparative analysis of the performance of certain groups of banks points to different results in different periods. However, it can be noted that in the initial period, 2004-2007, domestic banks were the most successful, and this primacy was later taken over by the group of GF banks. A particularly surprising finding of our analysis is that the banks that have occurred through M&A activity, with a few exceptions in certain years, were generally the least profitable. In particular, we emphasise that in some years, their unfavourable results led to negative trends in profitability for the entire banking sector of Serbia.

Performance indicators

To analyse the efficiency, as illustrative, we have investigated the cost/income ratio for all three groups of banks. The second group of banks that participated in M&A activities had a higher cost/income (C/I) indicator over the entire observed period, which indicates lower efficiency. This finding corresponds fully with the previous one. Namely, lower efficiency consequently leads to lower profitability. The reason for this is the fact that M&A activities generate significant operational costs during the M&A itself, but also in the post-merger period. These costs relate to consulting costs, information systems integration, a surplus of employees, re-branding, marketing costs, etc.

In contrast, domestic and GF banks showed better efficiency for most of the observed period.

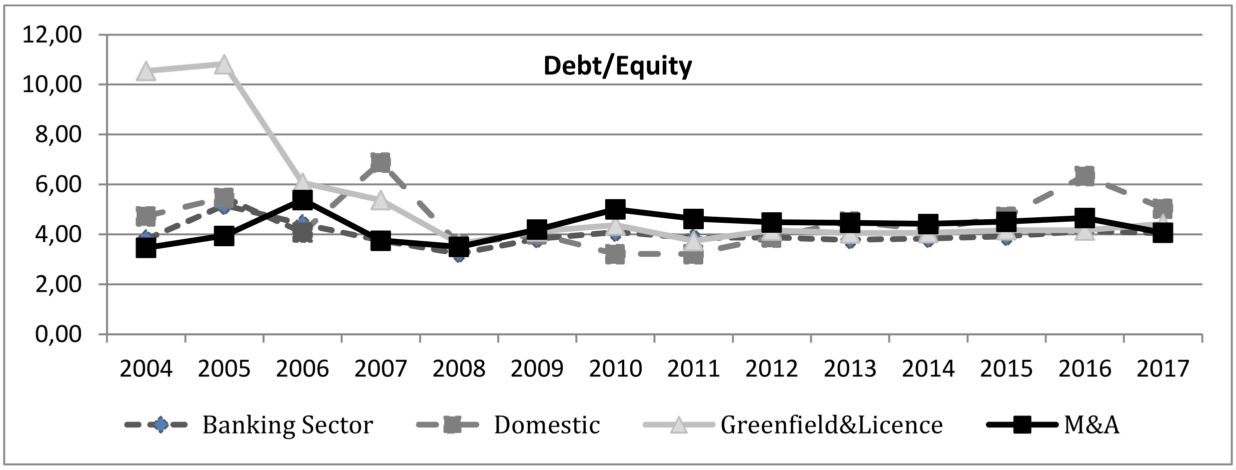


Graph 5. Comparative Overview of Efficiency Indicators in the period 2004-2017

Note: Cost/Income= Operating expenses/ Operating Income; *Source:* calculation of the author based on official data from the NBS - Financial reports of banks: https://www.nbs.rs/internet/cirilica/50/50_5.htmlwww.nbs.rs

Indebtedness/Solvency indicators

At the beginning of the observed period, one of the most important indicators of indebtedness - D/E (debt to equity) is higher than the average for the GF group of banks. The main reason for this lies in the fact that these banks financed the rapid growth of the loan portfolio from borrowed funds while retaining the existing amount of capital, unlike M&A banks, which, due to acquisitions, reached high levels of capital. The prudential regulation of the central bank and the measures from 2007, which conditioned further credit expansion by the amount of mandatory capital, lead to the equalisation of this indicator for all three categories over the observed period.

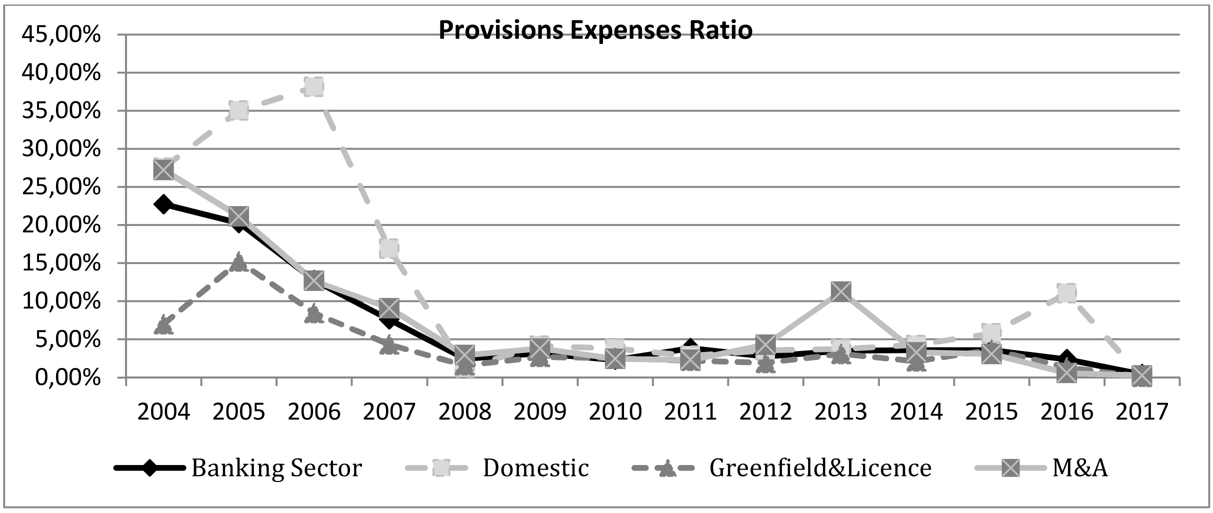


Graph 6. Comparative Overview of Indebtedness Indicators (Debt/Equity) in the period 2004-2017

Note: Total Debt to Equity = Debt/Equity; *Source:* calculation of the author based on official data from the NBS - *Financial reports of banks*: https://www.nbs.rs/internet/cirilica/50/50_5.htmlwww.nbs.rs

The solvency of banks is best reflected through the amount of the reserves for non-performing receivables. At the beginning of the observed period, domestic banks have the above-average cost of reservations, due to the burden of poor placements from previous years. The second category, M&A banks, due to the takeover of banks with a certain level of bad placements, had a higher indicator than the average, but due to more stringent credit policies and faster growth of assets relative to domestic banks, it quickly returned to the sector average. During 2013, the M&A Group of Banks saw remarkable changes in the balance sheet and growth in provisions for bad placements, and a similar rise in reserves is occurring in 2016 with domestic banks, especially those in state ownership.

GF banks record the lowest indicator during the observed period, since they entered the market without varying load, or with "clean" balances. Subsequently, more stringent credit policies and strong portfolio growth contributed to keeping this solvency indicator below the sector average.



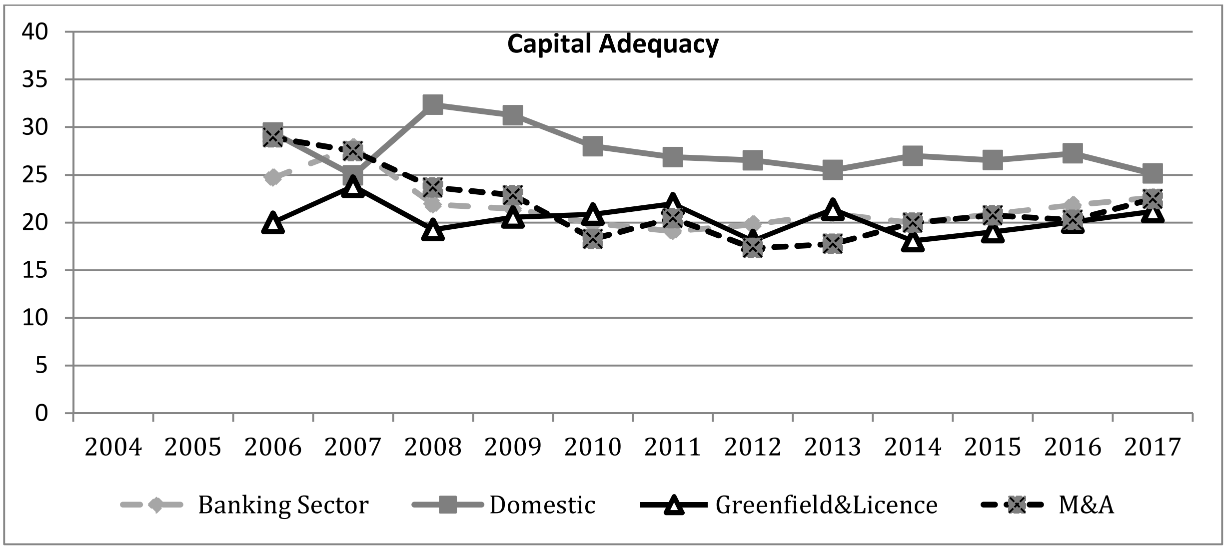
Graph 7. Comparative Overview of Solvency Indicators (Provisions/Expenses) in the period 2004-2017

Note: Provisions Expense=Provisions/Avg. Loans; *Source:* calculation of the author based on official data from the NBS - Financial reports of banks: https://www.nbs.rs/internet/cirilica/50/50_5.htmlwww.nbs.rs

Capital adequacy indicators

The banking sector of Serbia is well capitalised, first of all, keeping in mind the prudential requirements of the regulator. In almost the entire period of analysis, the prescribed minimum for the capital adequacy ratio, according to the provisions of the National Bank of Serbia was 12%, which was above the average comparing to the countries of the European Union. The reform of the entire banking sector at the beginning of 2000 aimed at creating a stable financial sector, which over the period under review managed to resist external shocks caused at first the by the global economic crisis, 2008-2009, and subsequently by the Greek external debt crisis since mid-2010.

During the entire observed period, the capital adequacy indicator is significantly above the prescribed minimum, with the performance of domestic banks additionally above the average. As noted, a sample of domestic banks was purged of problematic and bad banks that went bankrupt during the period, which, if included in the sample, would correct the indicator downwards. In particular, we emphasise that too high capital adequacy has its implications in terms of profitability, which has already been elaborated before.



Graph 8. Comparative Overview of Capital Adequacy Indicators in the period 2004-2017

Note: *Data published by banks individually / Prior to 2006, there was generally the practice to descriptively indicate in the bank's annual reports, that this ratio is above the prescribed rate of 12% without quotation ratio;

Source: calculation of the author based on official data from the NBS - Financial reports of banks: https://www.nbs.rs/internet/cirilica/50/50_5.htmlwww.nbs.rs

Finally, we will note that liquidity indicators are not counted, as there is no uniformity in the expression of the most important liquidity ratio. The second reason lies in the fact that this indicator is not available for the whole period since the NBS started publishing it only since 2008.

CONCLUSIONS

One of the key areas of transit processes in almost every country on the path to establishing market economy mechanisms is related to reforms in the field of the financial services industry. In this respect, a particularly important area refers to structural changes in the banking system. Almost all countries in Central and Eastern Europe have undergone these processes. As a consequence, we had changes in the banking structure in which some domestic, especially inefficient and bad banks disappeared. On the other hand, the market share of the foreign banks, which have proven to be more efficient, more flexible as the bearers of technological development and other innovations, has increased.

The banking sector of the Republic of Serbia experienced major changes after 2000. The total number of banks has diminished; some of the formerly large and well-known banks have been liquidated, foreign banks have emerged. The processes of foreign banks' entry took place in one of two ways - through greenfield investments (GF) and buying, taking over, merging with domestic banks (M&A). The focus of our research in this paper is aimed precisely on the analysis of the post-merger performance of this segment of banks.

Entry through M&A activities allows foreign banks some advantages in local markets. They are primarily related to the collection of new deposits, the expansion of the client base and the built-in organisational network, which can enable them to grow rapidly (Ljumović et al., 2015). The conducted research and analyses in this paper generally point to the fact that the operations of M&A banks were successful. This is the result of the effects that have been achieved on the scale, scope, rationalisation of organizational and transaction costs, and the efficiency of management and organization. However, on the other hand, when the profitability of this group of banks is compared with the other two categories of banks (GF and DB), it is evident that M&A banks were slightly lower in performance.

This is primarily reflected in a regular review of ROE and ROA ratio movement that is lower with the M&A group of banks. The reason lies in the fact that M&A activities generated more operational costs, as well as the takeovers of domestic banks with NPL legacy, which consecutively increased the provisioning cost and influenced lower profitability. With the NIM indicator, this difference is not so obvious, primarily because strong competition on the market has balanced the interest income of market participants, with partial rebounding of domestic banks. The reason for this is that domestic banks increased their interest-bearing assets at a much slower pace in relation to foreign banks, as well as previously stated that the sample of domestic banks was "purged" of bad banks that went bankrupt during the period.

Analysing the individual segments of efficiency, we noticed that banks that conquered the domestic market through M&A had poorer performance compared to the other two categories. Namely, M&A banks had a higher C/I indicator over the entire observed period, because M&A activities generate significant operating costs both during the M&A process and in the post-merger period. Only the process of integrating information systems can last for years, and by the way, generate quite high costs. In contrast to M&A banks, domestic and GF banks showed better efficiency because they were exempt from these costs.

M&A banks lagged behind GF banks in the solvency segment, as with the domestic banks acquired, the burden of legacy NPL from previous years also came along. In this segment, M&A banks were not the worst, since more flexible domestic banks credit policy, impacted their highest index of reservation costs in the observed period. Due to the prudential requirements of the regulator, all categories of banks were well capitalised and displayed capital adequacy that is significantly above the prescribed minimum.

To better understand the results of the analysis, it is important to take into account the particularities of the Serbian market from the perspective of customer loyalty to banks. Namely, due to developments in the sector during the 1990s, when the client's confidence in the banking sector in Serbia was quite ruined, a lower level of customer loyalty to banks was noticed. This is reflected in the fact that foreign banks from the GF category were able to relatively quickly increase their clientele and placements without having to participate in expensive acquisitions, which directly affected their profitability.

Finally, it should not be forgotten that in the middle of the observed period, the global economic crisis, which spilt rapidly on the domestic economy, also suddenly stopped the credit expansion, reducing revenues and increasing the number of NPLs. Here lies another reason for the poor performance of M&A banks, since in the post-merger period, M&A banks should, among other things, bring profit growth, their flight stopped because credit activity was almost frozen, and on the other hand, all operating costs related to the M&A transaction remained, now combined with the effect of increasing the provision for non-performing loans. With this kind of ballast, M&A banks were hardly able to do better.

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