How can Banks in the European Union Achieve Consolidation that would lead to Higher Profitability

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Abstract

One of the main issues the European Union (EU) banking sector is dealing with is weak bank profitability. The numerous banks competing for customers is one of the primary causes. Banks are engaging in mergers and acquisitions in order to boost profitability and remain competitive. The majority of mergers and acquisitions (M&As) activity has been domestic in nature, with smaller targets, and larger, more financially stable acquirers functioning as consolidators. Lower cost efficiency, greater liquidity, and higher capitalization of targets can all contribute to improved post-merger profitability. The aim of this paper is to analyze the influence M&As have on EU banks, using a time analysis method over the past fourteen years examining the return on equity (ROE), the number of banks and the number of employees within the EU banking sector. The motivation of this paper is to describe how mergers and acquisitions have influenced the number of banks in the EU consequently increasing the performance of the banks which stayed in business. M&As also markedly raised competition in the banking industry. Bank mergers and acquisitions are often regarded as an mean for reducing overcapacity in the market and weak profitability in banking sector The main finding is that M&As have a beneficial effect on banking profitability, which reduces the supply of banks in the market. Less competition has primarily led to a consolidated banking sector in the EU. The results show that M&A transactions were followed by a statistically significant increase in the ROE of the consolidated banks after two years.

Keywords: banking consolidation, banking profitability, M&A, number of banks, banking competition

JEL Classification: O43, E58, G21, J01

1. Introduction

The main challenges the banking sector is experiencing are the present geopolitical instabilities in Eastern Europe, the Covid Crisis, but also some structural ones such as increase in competition in the market, regulatory changes, advancement in technology and merges and acquisitions, resulting in more efficient and consolidated banking sector. In the recent years, the number of banks in the European Union (EU) banking sector has decreased and the trend is continuing.

The motivation of this contribution is to describe how mergers and acquisitions (M&As) have influenced the number of banks in the EU consequently increasing the performance of the banks which stayed in business. Bank mergers and acquisitions are often regarded as an mean for reducing overcapacity in the market and weak profitability in banking sector (Coccorese and Ferri, 2019). The aim of the paper is to show how bank mergers intend to consolidate its capital, technology and customers in order to stay competitive in the market. Additionally, the paper will show the costs of M&As such as the decrease of employees in the banking sector.

The objective is to describe the downward trend in quantity of banks while checking the return on equity (ROE), which serves as an indicator of bank profitability. The assumption is that a lower number of banks in the market will increase consolidation in the banking sector and ideally banking performance. The paper will use the official data provided by the European Central Bank (ECB) on the number of banks and the ROE within EU over a given period of time.

The analysis within this paper has found that the number of banks within the EU banking sector has decreased due to M&As and that these had a positive impact on the banking performance overall. The time analysis also found that with the increase in M&As, the number of employees within the banking sector has steadily decreased.

The content of the paper is as follows: First, a theoretical background on the main topic will be provided, describing the current stand of the research, giving the reader a brief insight into the theme. Secondly, the methodology and data section will cover the data gathering process and a brief elaboration on which methods of empirical analysis will be used in order to present the output. Thirdly, the results and discussion part will cover the statistical output, where the main findings will be presented in form of graphs and tables. Additionally to the output, a brief discussion of the results will be presented in order to show what other research has found on that topic. Finally, the concluding part will summarize the objective and results of the paper and provide some contribution for further research.

2. Theoretical Background

Bank mergers and acquisitions are often regarded as a way to reduce overcapacity and weak profitability in the European banking sector. Since the global financial crisis, a third of the EU's banking groups—mostly the smallest banks—have vanished, further increasing the market's concentration. Despite this, the banking industry has issues with insufficient profitability, excess capacity, a surplus of small banks, and an expensive physical banking infrastructure, including human resources and technology. (ECB, 2021)

The most common method of corporate restructuring or business consolidation is merger and acquisition, which plays a significant role in the competitive economy of today. They are regarded as one of the corporate strategies for improved profitability and expansion. Additionally, M&A is recognized as a key strategic alliance and a company's preferred dynamic strategy in today's fiercely competitive business climate because it allows companies to reveal the necessary domestic and international strategies as well as geographic tactics.

Corporate restructuring, which refers to changes within the corporate capital structure, such as adding debt and consequently raising financial leverage, is currently found to be a crucial component of finance. This type of corporate streamlining is particularly significant in the world of finance and is frequently carried out as a component of financing M&A transactions. The three primary categories of M&A are conglomerate, vertical integration, and horizontal integration. Nowadays, businesses embrace the necessary M&A strategy as a dynamic strategic vehicle and a quicker method of growth, expansion, and performance. M&A research has thus amassed a vast body of knowledge due to its importance as a regime in contemporary business and corporate finance (Hossain, 2021).

Some measures of bank efficiency need to catch up to those of other advanced economies too. Further consolidation will improve the effectiveness and stability of the financial system. As various authorities have remarked, this consolidation should be driven by market forces, with each proposed deal being carefully considered. In light of this, this unique feature explores current trends in the EU banking sector's consolidation, examines the nature and motivations of bank M&A transactions, and evaluates the effects of bank M&A on the performance of EU banks. (ECB, 2019)

Following the global financial crisis, M&A activity in the EU banking industry significantly decreased. According to events around the world, the value of M&A transactions decreased by almost two-thirds between the pre-crisis decade and the time following 2008, as measured by the total assets of M&A targets. (Fernandez-Bollo et al. 2021)

The analysis by Haleblian et al. (2009) identified numerous strategic objectives, including efficiency and market dominance (Andrade 2000). Recent research following 2009 have

discovered that the key drivers for strategic acquisitions have changed to the purchase of cutting-edge technology and the discovery of new industries outside of corporations' primary activities as a response to the dynamic global competition and technological advances (Lee and Lieberman 2010; Stettner and Lavie 2014).

While the overall number of transactions has decreased, the decline in large transactions has been less pronounced. In the wake of the global financial crisis, it has grown harder to complete M&A agreements. In the post-crisis era, one in three attempted deals have failed to close, compared to one in six in the decade before the crisis. This issue demonstrates the challenges EU banks confront in selecting a suitable partner in a more difficult operating climate defined by low interest rates, poor capital returns, and the ongoing digitalization of the financial sector. (ECB, 2021) Bank M&A activity has just recently begun to increase, though it is still below pre-crisis levels.

Larger organizations and banks with stronger fundamentals have dominated the banking market's consolidation process. From the standpoint of the purchaser, medium-sized and big institutions have made up about 60% of all bank mergers and acquisitions in the EU, mostly focusing on smaller institutions. This might mean that rather than joining two institutions with comparable balance sheet footprints, the targets have been chosen to enhance the acquirer's current business strategy. (ECB, 2021)

The preference for smaller banks may also be a result of the capital buffer framework's disincentives against enlarging large domestic institutions. Additionally, since the global financial crisis, the majority of bank M&A deals have included at least one bank that investors believe to be stronger than the average bank. Around 15% of all transactions (mainly domestic transactions) appear to have involved fewer strong institutions, which is consistent with worse bank profitability and lower bank values. (ECB, 2021)

The majority of bank M&A activity in the euro region has been concentrated on deals within national markets. In the euro region, domestic transactions made up about 80% of completed transactions. The biggest number of transactions have occurred in Italy and Germany, two of the euro area's least concentrated financial regions, however very few of these have crossed international boundaries. Since the global financial crisis, cross-border activity has decreased in frequency and has largely consisted of modest transactions involving Belgian, French, and Dutch institutions.

According to studies, there is no single dominant purpose behind bank mergers and acquisitions; instead, many different justifications are used. These studies, which mostly concentrated on the 1990s and the first few years of the 2000s, show that mergers frequently try to increase profitability and efficiency. Stronger banks were more likely to be the targets of M&A bids from more profitable banks (Berger et al., 2002). This also applied to cross-border mergers, which were further discovered to be more common when nations shared

close ties with one another through trade or a common language, for example. (Focarelli and Pozzolo 2014)

Banks also participated in M&As to increase their market strength and share, or to diversify their revenue streams. (Amel and Rhoades 2010). Most of these arguments are supported by European studies, which also discovered that smaller, less effective banks were more likely to be bought. (Buch and DeLong 2016)

Empirical analysis shows that cross-border bank M&A transactions in the euro area tend to follow existing financial links. (Beccalli and Frantz 2013). Based on data from 385 transactions between the years of 2014 and 2020, a gravity model was used to assess the factors influencing M&A deals in Europe (Lebastard 2022). More cross-border M&As are linked to stronger connections through bilateral interbank loans and securities holdings. Additionally, banks frequently acquire targets through subsidiaries in nations where they already have a physical presence, while entering new nations seems to occur less frequently (Lanine and Vander 2007)

The euro area's clusters of nations are where cross-border transactions are most likely to take place. A gravity equation was used to create an M&A compatibility score that reflects the influence of monetary, commercial, and cultural ties on the frequency of bank M&As from 2014 to 2020. It demonstrates that the most likely constellation is that of bank mergers between those that operate in some of the key euro area nations, such as Belgium, Germany, the Netherlands, and Austria. Within two other clusters, consolidation is thought to be likely: Spanish banks are considered as a strong fit with their Portuguese peers, and French banks are thought to interact with banks in neighboring nations. (ECB 2021)

Banks located in geographically distant nations, on the other hand, are less appropriate as merger partners. However, it appears that the actual frequency of cross-border mergers involving some nation pairs is far lower than the potential suggested by the model. This shows that despite the significant financial ties that currently exist between the nations involved, variables not represented by the compatibility index, such as the prominence of cooperative and savings banks in a specific country, may hinder M&A activity (ECB 2021).

While the literature suggests that mergers have variable overall effects on bank performance, these effects are dependent on effective execution and strategic alignment. US research only partially support increased bank profitability or efficiency brought about by M&A. (DeLong and DeYoung 2007)

Many European research paint a similar picture. An review of the time leading up to the global financial crisis, for instance, reveals that M&A deals improved the profitability of the participating banks in a moderately positive manner. It also highlights the importance of strategic similarities that lead to economies of scale as a success factor in bank mergers and

acquisitions, while the integration of disparate banks frequently proves expensive. (Altunbas and Marqués-Ibañez 2007)

The benefits of M&As also seem to be more noticeable when deals are completed during a financial crisis since distressed prices could be advantageous to a well-positioned buyer (Shen et al., 2020). Nevertheless, according to some studies, M&As have a marginally negative effect on profitability but a good effect on cost effectiveness. In a cutthroat banking industry, this is seen as evidence that cost savings are passed on to clients. (Beccalli and Frantz 2009)

Depending on the timing of the transactions, bank profitability following international mergers appears to be different from that following domestic mergers. (Castro and Galán 2019) Later cross-border mergers appear to have performed better than domestic mergers, but mergers undertaken in the late 1980s and early 1990s tended to create no discernible improvement in ROE. (Peek et al. 1999)

Poor bank performance after cross-border mergers can be due to a number of factors, including poor execution, an overly optimistic price (ECB 2021), and the inability to alter the target's strategic direction.

Post-merger profitability is higher for M&A deals involving banks with weaker capital and liquidity positions and greater cost inefficiencies. Prior to the global financial crisis, ROE increased after around 51% of deals. After the crisis, as investors grew more careful about approving mergers, ROE increased somewhat to 57%. Over a two-year period, mergers involving banks with higher cost-efficiency are less likely to increase profitability. This suggests that transactions between highly efficient banks may not result in cost synergies, as M&As can (ECB 2021).

Although the relationship between M&A players' capitalization and merger success is less certain, in transactions that increase profitability, the acquirer's median capital ratio is larger than the target's. Last but not least, M&A deals involving banks with lower levels of liquidity have favorable effects on profitability, which may indicate that banks are less likely to take advantage of business possibilities when bank liquidity levels are higher.

According to econometric studies, M&As typically result in an increase in the merged entity's profitability. The results show that M&A transactions were followed by a statistically significant increase in the ROE of the merged bank after two years, relative to the weighted average of the acquirer and target, and the effect is greater for cross-border mergers, according to the methodology used by Beccalli and Frantz (2009). Large variation within this effect, however, suggests that there may be a sizable risk to an M&A's success. (ECB, 2021) Additionally, the impact of cross-border mergers appears to have diminished with time.

The improvement in bank profitability following a merger appears to be related to credit risk and funding structures. Before 2001, a research of pre- and post-merger performance in the EU discovered that domestic mergers performed better when the participating banks were similar, as determined by a similarity index, which is calculated as the difference between the two banks' normalized financial characteristics. (ECB 2021) Cross-border mergers, however, increased profitability when banks used a variety of lending and credit risk tactics.

When the last two decades' worth of mergers are evaluated, deals where one party is heavily indebted to non-performing loans show better profitability increases. This could indicate that acquirers are better able to control credit risk. In the past, the merged bank's performance was slightly worse when the funding structures of the two participating banks were different and the acquirer relied more on deposit funding.

3. Research Objective, Methodology and Data

For the end of 2021, the European Central Bank (ECB) has updated its collection of structural financial indicators for the EU's banking industry. This annual dataset includes information on the number of branches and workers of EU credit institutions, information on the level of banking sector concentration in each EU Member State, and information on institutions with foreign ownership in national banking markets in the EU. (ECB, 2021)

The data used in this paper has been gathered from the official data tool provided by the ECB. In order to present the data, a structural financial indicator has been observed for every year for a period of fourteen years on: 1. The number of banks in the EU market, 2. Return on Equity for EU banks and 3. Number of employees in the banking sector in the EU.

A time analysis helps to better understand the changes within the market by comparing the same indicators under the same circumstances over a given period of time.

In order to prove for the objective of the paper, a time analysis has been conducted: firstly on the number of banks in the EU, secondly on ROE in the EU banks, and thirdly on the number of employees in the EU banking sector.

The main objective of the paper is to present the impact of M&As in the banking sector on the number of banks firstly, and the ROE secondly. The assumption is that the increase in banking M&As will decrease the number of banks which consequently will lead to higher banking performance but also a decrease in the quantity of banking employees.

4. Results and Discussion

In this part of the paper, the gathered data has been used in order to present a change in the number of banks in the EU. From figure 1 we can see that the number has been decreasing steadily over years. According to the literature, there are few reasons for that. First, more and more customers are moving to online-banking and using online tools in order to complete

their business. Second, the competition in the market has increased: larger banks entering the market are eating up small and medium-sized banks, taking u their market share and customers. The third commonly found reason in the literature is the regulatory changes: small and medium-sized banks cannot bear the increase in capital demanded in order to fulfill the regulatory predispositions.

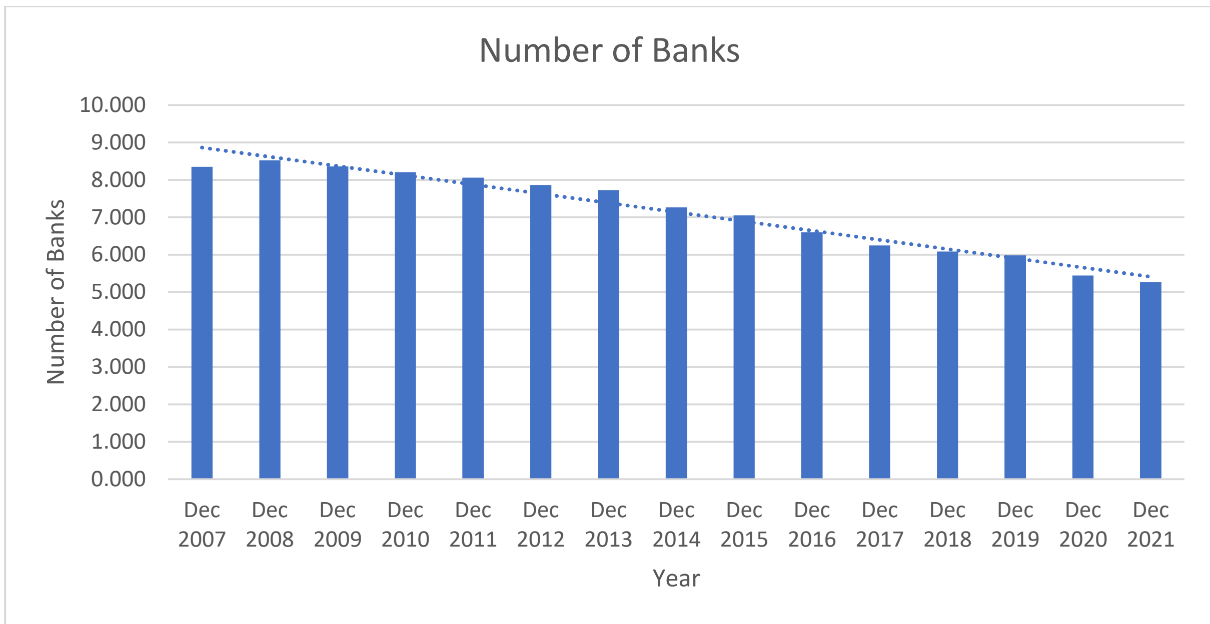


Fig. 1: Number of Banks.

Source: own research

All of the reasons have lead to an increase in M&As within the banking sector. Banks with higher technology levels are merging with banks which have a larger market share, so both benefit from each other. Larger banks undertake acquisition of medium-sized banks in order to get into a foreign market, profiting from their market shares and customers.

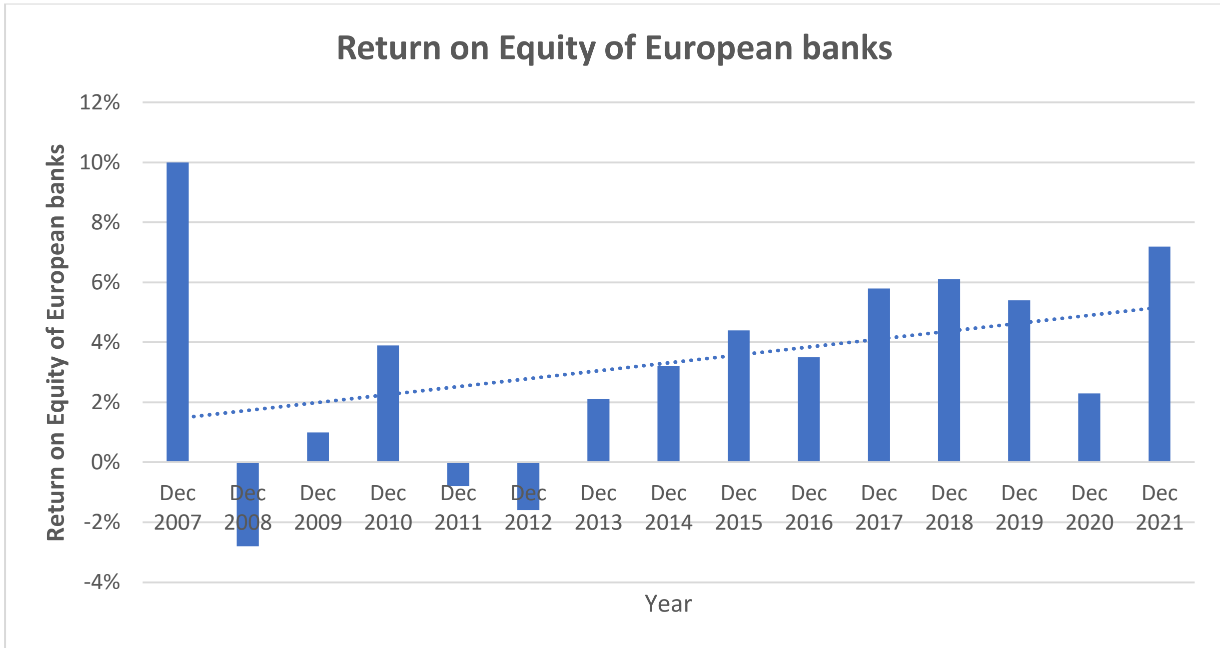


Fig. 2: Return on Equity of European Banks

Source: own research

All of that has resulted in a higher banking performance. Small and medium-sized banks which have undergone M&As, have now consolidated capital and are therefore more competitive in the market.

The exception is the recent Covid Crisis, which decreased highly the banking profitability in the EU in 2020. However, at the fourth quarter of 2021, the numbers were surprisingly high and, according to literature, back at the pre-crisis level. The other exception are the years around the Financial Crisis and its aftermath negative results can be seen in the years 2008 and 2009.

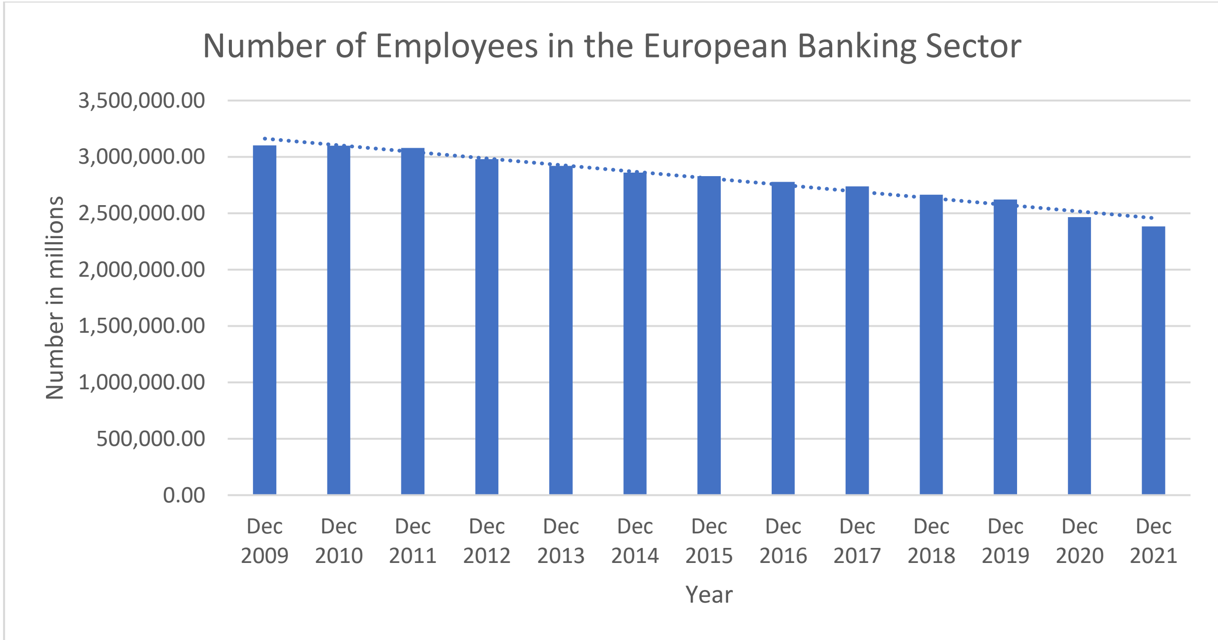
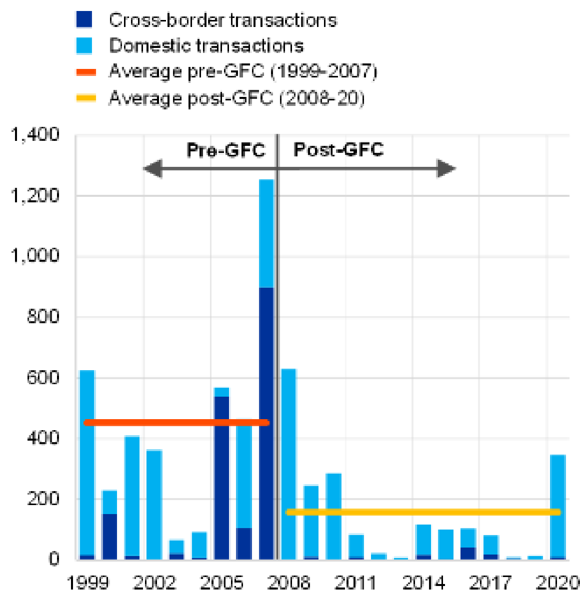


Fig. 3: Number of Employees in the European Banking Sector

Source: own research

Although M&As have had a positive impact on banking profitability, figure 3 shows the downward trend in the employment in the EU banking sector. The first explanation is that not all employees can preserve their position within a bank during and after a M&A. Otherwise, there would be positions after an M&A double-booked.

Human Capital is a large cost-factor. In the recent years, technology has compensated for some amount of employment within the banking sector, which additionally decreased the number of employees.



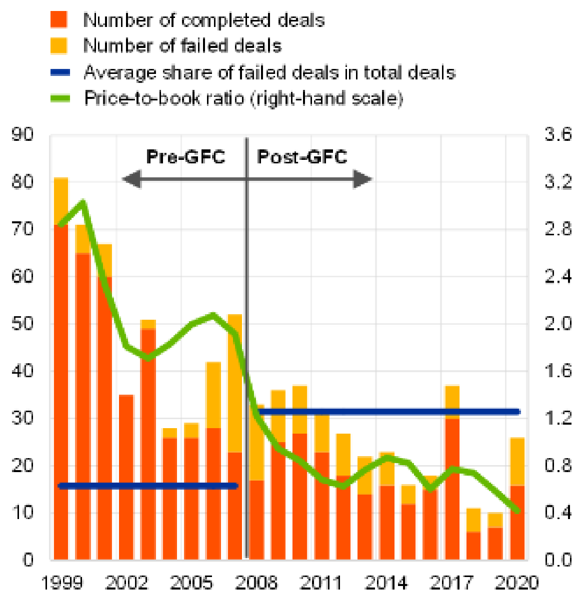


Fig. 4: Bank M&A activity.

Source: Refinitiv and ECB (2021)

Figure 4 shows the Bank M&A activities for the past twenty years. Following the global financial crisis, M&A activity in the banking industry of the European Union significantly decreased. According to trends around the world, the value of M&A transactions decreased by almost two-thirds between the pre-crisis decade and the time following 2008, as measured by the total assets of M&A targets (on panel a).

While the overall number of transactions has decreased, the decline in large transactions has been more gradual. In the wake of the world financial crisis, it has also become more challenging to complete M&A agreements. In the post-crisis era, one in three transactions have been attempted, up from one in six in the decade prior to the crisis (on panel b). This emphasizes how difficult it is for banks in the euro region to find a good fit in a setting that is becoming more difficult to operate in due to low interest rates, low returns on capital, and the continuous digital revolution of the financial sector. Bank M&A activity has just recently begun to increase, though it is still below pre-crisis levels. (ECB, 2021)

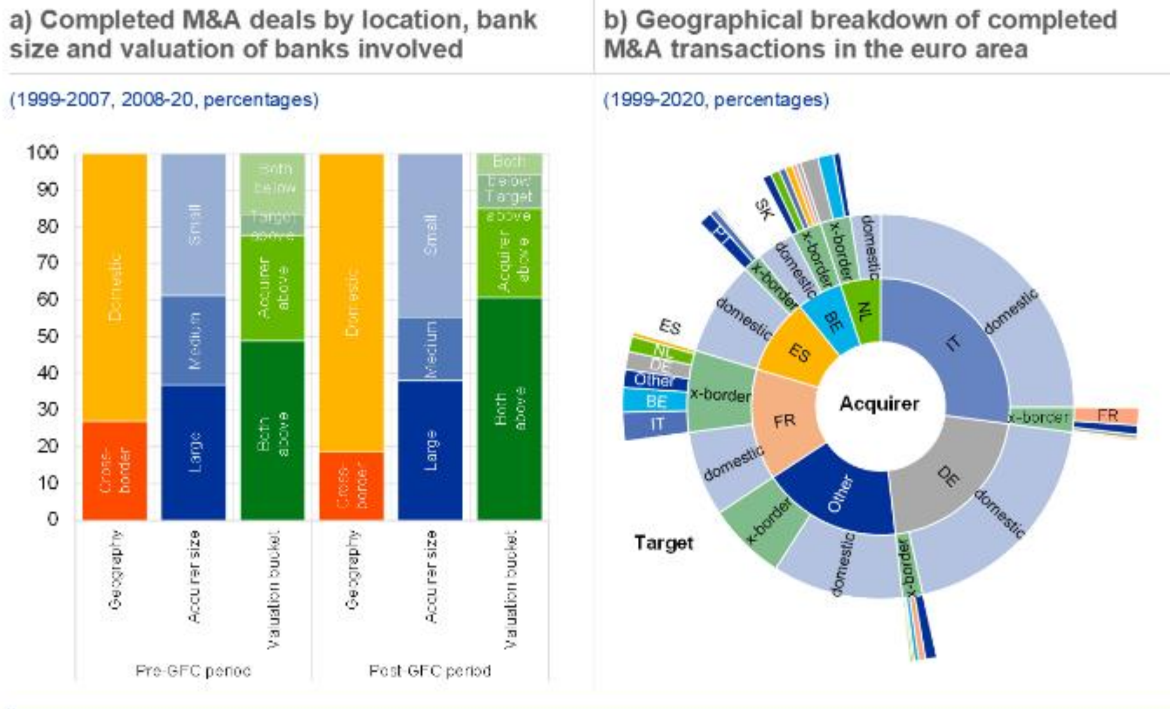


Fig. 5: M&As by location.

Source: Refinitiv and ECB, 2021

Larger organizations and banks with sounder fundamentals have dominated the banking market's consolidation process. From the standpoint of the acquirer, medium-sized and big institutions have made up about 60% of all bank M&As in the EU, mostly focusing on smaller institutions (Figure 5, panel a). This might mean that rather than joining two institutions with comparable balance sheet footprints, the targets have been chosen to enhance the acquirer's current business strategy.

The preference for smaller banks may also be a result of the capital buffer framework's discouragement against enlarging large domestic institutions. Additionally, since the global financial crisis, the majority of bank M&A deals have included at least one bank that investors believe to be stronger than the average bank. Around 15% of all transactions (mainly domestic transactions) appear to have involved fewer strong institutions, which is consistent with worse bank profitability and lower bank values.

The majority of bank M&A activity in the euro region has been concentrated on deals within national markets. In the euro region, domestic transactions made up about 80% of completed transactions. The biggest number of transactions have occurred in Italy and Germany, two of the euro area's least concentrated financial regions, however very few of these have crossed international boundaries. Since the global financial crisis, cross-border business has

decreased in frequency and has largely consisted of modest transactions involving Belgian, French, and Dutch banks (Figure 5, panel b). (ECB, 2021)

Another study conducted by Coccorese and Ferri (2019), who have obtained data on 688 banks of all types: commercial, popular, savings and cooperative in a time frame of 20 years, conducted a regression analysis in order to show the effects of pre- and post-merger outcomes on banks. They have observed for banking performance (ROE), cost efficiency and loans as independent variables and M&As as the dependent variable.

The analysis has found that significant cost efficiency improvements can be observed mainly after the third merger, and gains are even larger with the fourth merger, thanks to which the predicted value of ROE raises by 0.0356 points compared to the never-merged banks, which presents an increases of about 6.6%. However, Coccorese and Ferri (2019) argue that banks which merge more than three times reach the diminishing point of return, which means that, in order to stay competitive, the bank would need to grow in employment – which in return would increase the costs, meaning that the bank will not choose that path. To conclude, the study has found that M&As are indeed a increasing performance tool as long as the cost diminishing point is not reached.

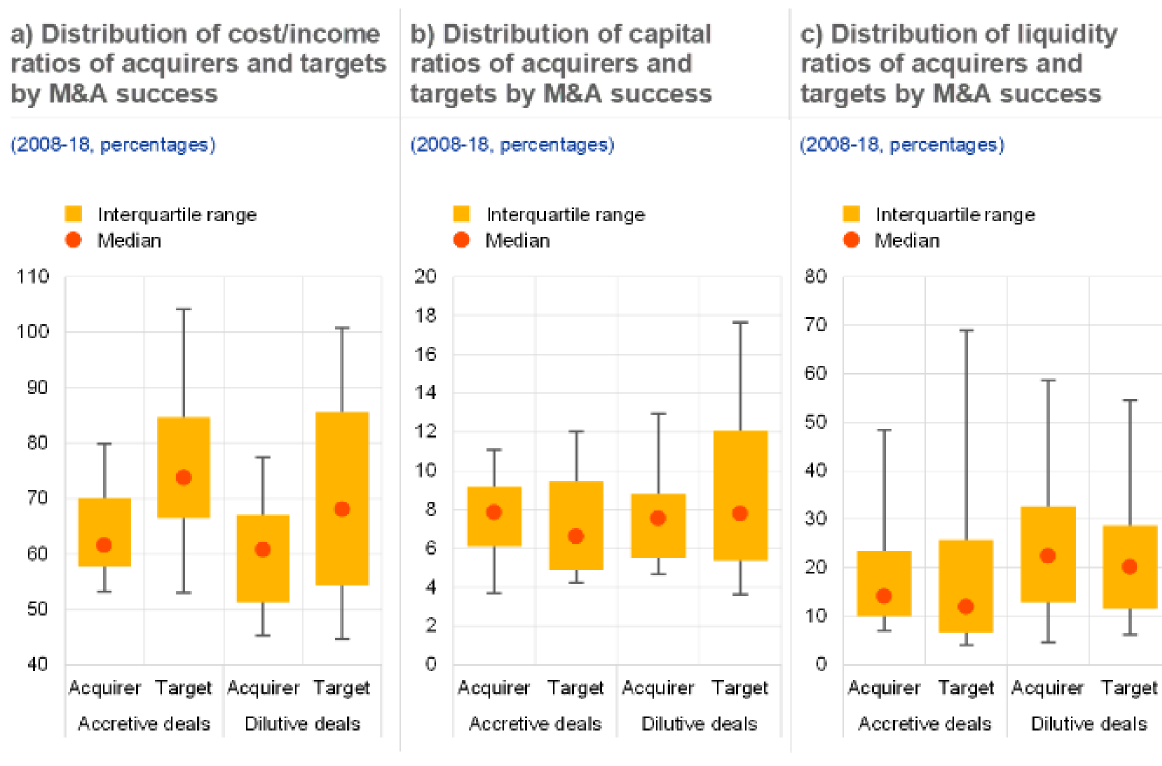


Fig. 6: Impact of M&As on financial performance.

Source: Dealogic and ECB, 2021

The post-merger profitability of M&A deals involving banks with weaker capital and liquidity positions and greater cost inefficiencies appears to be higher. Prior to the global financial crisis, ROE increased after around 51% of deals. After the crisis, as investors grew more careful about approving mergers, ROE increased somewhat to 57%. In general, higher profitability over a two-year timeframe is less likely to result from mergers involving more cost-effective institutions (Figure 6, panel a).

This suggests that mergers and acquisitions may operate as a driver for cost synergies that could be lacking in deals between highly efficient banks. Although the relationship between the capitalization of M&A players and merger success is less certain, in transactions that increase profitability, the acquirer's median capital ratio is larger than the target's (Figure 6, panel b).

Last but not least, M&A deals involving banks with lower levels of liquidity seem to lead into increases in profitability (Figure 6, panel c), showing that banks may be less likely to take advantage of business opportunities if their levels of liquidity are higher. (ECB, 2021)

According to econometric studies, M&As typically result in an increase in the merged entity's profitability. The results show that M&A transactions were followed by a statistically significant increase in the ROE of the merged bank after two years, relative to the weighted average of the acquirer and target, and the effect is greater for cross-border mergers, in accordance with the methodology used by Beccalli and Frantz (2009).

These results, as expected, were also proven by the literature. Mainly the ECB, which gathered a large spectrum of data, has proven the positive effect of M&As on banking profitability. They also found a correlation between an increase in M&A and the number of banks within the sector.

5. Conclusion

The objective of the paper was to present the impact of M&As in the banking sector on the number of banks firstly, and on the ROE secondly in order to improve consolidation in the banking sector. The assumption was that the increase in banking M&As will decrease the number of banks which consequently will lead to higher banking performance but also a decrease in the quantity of banking employees.

This paper has found that in the recent years, mostly after the Financial Crisis, M&As in the EU banking sector lead to a higher banking profitability. This has had as a consequence that the number of banks in the market decreased which also cut many working places within the sector. The major reasons for that are technological innovations, increase in competition and regulatory changes in the banking sector.

The literature on M&As finds that mergers frequently try to increase profitability and efficiency. Stronger banks are more likely to be the targets of M&A bids from more profitable banks (Berger et al., 2002). This also applied to cross-border mergers, which were further discovered to be more common when nations shared close ties with one another through trade or a common language, for example. (Focarelli and Pozzolo 2014). Banks also participated in M&As to increase their market strength and share, or to diversify their revenue streams. (Amel and Rhoades 2010). Most of these arguments are supported by European studies, which also discovered that smaller, less effective banks were more likely to be bought (Buch and DeLong 2016). According to the findings of the ECB (2021), the post-merger profitability of M&A deals involving banks with weaker capital and liquidity positions and greater cost inefficiencies appears to be higher. Prior to the global financial crisis, ROE increased after the M&A around 51% of deals. According to econometric studies, M&As typically result in an increase in the merged entity's profitability. The results show that M&A transactions were followed by a statistically significant increase in the ROE of the merged bank after two years, relative to the weighted average of the acquirer and target, and the effect is greater for cross-border mergers, in accordance with the methodology used by Beccalli and Frantz (2009).

Additional research on this subject may implement the banking union's component, which would solve one of the main causes of financial fragmentation and enable international mergers and acquisitions. Even though they seem profitable, these transactions might be complicated by the euro area's scant financial integration. While the ECB has clarified the supervisory approach to bank mergers, additional harmonization of the legislative and supervisory environment could aid in overcoming the primary causes of fragmentation.

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