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ASSESSMENT OF MERGERS AND ACQUISITIONS IN BANKING ON SMALL OPEN ECONOMY AS SUSTAINABLE DOMESTIC FINANCIAL SYSTEM DEVELOPMENT

Abstract.
Purpose – The banking and financial sector is a dynamic sector that regularly goes through a series of structural changes. Global bank consolidation and concentration processes have prompted a lively discussion on the part of scholars and practitioners regarding the influence of concentration on the efficiency and competition levels in the banking system, the financial and macroeconomic stability of countries and the growth of economies. It has been noted that the banking sector tolerates high levels of concentration rather well compared to other business sectors, thanks to the apparent benefits of concentration on the increasing stability of the financial system. The aim of this article is to identify underlying causes affecting the mergers and acquisitions in banking and to assess their effect on the domestic financial system.
Design/methodology/approach – The authors used qualitative and quantitative methods of study in analysing the impact of bank mergers and acquisitions on the country's financial system. The qualitative analysis has allowed the authors to present their own interpretation of the issue at hand, and has given them a chance to approach the problem of the study holistically. The quantitative study has provided a basis for analysing dynamic regularities, performing and comparing calculations, assessing data interrelation and reliability. The article includes logical analysis and synthesis of studies dealing with bank mergers and acquisitions. To identify the potential elements that lead to stability in the financial system, and the possible impact that the on-going consolidation process might have on the banking sector, the authors have carried out expert analysis.
Findings – Mergers and acquisitions in banking take place to enhance the wellbeing of shareholders and to attain an economic effect; the aspect of stability in mergers and acquisitions is short-lived and is usually inspired by the government. Lithuania's modern banking market has evolved through mergers and acquisitions; strategic investors have helped countries with transitional economies ensure the stability of their banking systems and capitalise on economies of scale. Several large banks operating in a small open economy (and a transitional economy in particular) provide the backbone for the stability of its financial sector.
Originality/Value – This article dealing with the impact of mergers and acquisitions of banks on the country's financial system is a new and original piece of scientific work that evaluates the mutual ties of banks' mergers and acquisitions, as well as their effect on the domestic financial system. The authors have conducted an in-depth study of the impact of mergers and acquisitions on the country's financial system, revealing potential problems involved in merger and acquisition transactions.

Keywords: mergers; acquisition; banking; financial intermediaries; financial system.

JEL Classification: E44, G34

Introduction

Global mergers and acquisitions processes in banking have prompted a lively discussion on the part of scholars and practitioners regarding the influence of concentration on the efficiency and competition levels in the banking system, the financial and macroeconomic stability of countries and the growth of economies. According to the World Bank, a survey of 72 countries has revealed banking concentration in more than half (57 per cent or 41 countries) of them to have exceeded 71 per cent in 1990–2009.

In recent years, studies of the effects of concentration on the financial system have become particularly important for several reasons, one of the most significant of them being the rapid processes of banking concentration and consolidation that are taking place on the global or national level, posing questions about the influence of the growing concentration on financial stability.

The purpose of this article is to identify underlying causes affecting the mergers and acquisitions in banking and to assess their effect on the domestic financial system.

The authors used qualitative and quantitative methods of study in examining the impact of bank mergers and acquisitions on the country's financial system. The article includes logical analysis and synthesis of studies dealing with bank mergers and acquisitions. To identify the potential elements that lead to stability in the financial system, and the possible impact that the on-going consolidation process might have on the banking sector, the authors have carried out expert analysis.

Theoretical Concept of Mergers and Acquisitions in Banking

The concentration of banks on the market is growing thanks to consolidation processes that are taking place in the banking sector. Consolidation typically occurs as a result of mergers or acquisitions between market players. Such mergers and acquisitions are usually driven by an ambition to gain as much weight as possible in the international banking space, to eliminate competition from profitable areas of business, to procure added financial benefits for the shareholders, to expand the range of services, and to effectively manage the resources available.

Such consolidation processes inevitably affect the financial system of a country or region. The concern with the constitution of the banking system and its stability stems from the exclusive role that banks play in the financial system and economy. The line between the traditional banking and other types of financial brokerage activities has been growing thin over the past few decades, with banks expanding the boundaries of their business to cover the areas of securities, fund management, and insurance. On top of that, the rapid growth of assets of banks operating on a global scale further advances their role both on the national and global level.

In the light of globalisation processes, the success of banking operations relies directly on the choice of the business strategy and business model, on how banks are able to turn their market advantages into account and to reinforce their position on the market. The importance of the banking sector in the economy supports the relevance of the issue at hand and allows probing into the consolidation processes within the banking sector, as well as their impact on the financial system.

Furthermore, Vaškelaitis and Deltuvaitė (Deltuvaitė & Vaškelaitis, 2007; Deltuvaitė, Vaškelaitis, & Pranckevičiūtė, 2007; Deltuvaitė, 2012; Deltuvaitė, 2009) analysed the influence of concentration on the efficiency and stability of the banking sector, and systematic risk management in the same. Jasienė and Novickytė (2011) studied the consolidation processes of the banking sector, as well as the role that they play in and the potential impact they have on the stability of the financial sector.

The intercourse between concentration in the banking sector and the stability of the financial system has been broadly covered in the scientific literature. However, this particular scientific medium is still ridden by contradicting views that are distinguished by researchers Beck, Demirgüç-Kunt, Levin (2003; 2006), Ruiz-Porras (2008), Uhde, Heimeshoff (2009). The "concentration-stability" approach, supported by the scientists Boyd, Prescott (1986), Boot, Thakor (2000), Boyd, De Nicoló, Smith (2004), Park, Peristiani (2007), Allen, D. Gale (2000; 2004), Beck, Demirgüç-Kunt, Levin (2006), Méon, Weill (2005), Novickytė (2010), Matutes, Vives (2000), posits that banking systems possessed of a higher degree of concentration are more stable, while another approach supported by Mishkin (1999), Uhde, Heimeshoff (2009), Caminal, Matutes (2002), Boyd and De Nicoló (2005), Beck, Demirgüç-Kunt, Levin (2006), Cetorelli, Hirtle, Morgan, Peristiani, Santos (2007), De Nicoló, Bartholomew, Zaman, Zephirin (2003) hold that higher levels of concentration in a banking system lead to its greater vulnerability (the so-called "concentration–fragility" approach). However, there are also scholars (Ruiz-Porras, 2008; Deltuvaitė, 2009) who argue that there is no direct relationship between concentration and banking system stability.

The first attempts to analyse the topic of mergers and acquisitions in banking were made quite recently. In their research, scholars address transactions taking place in the banking sector not just in terms of the benefit derived or value created by one party of the transaction, but rather in the light of stability of the financial system. The most recent works of the authors (Davis, 2000; Fiordelisi, 2009; Walter, 2004; Dermine, 1999; Ayadi & Pujals, 2005; Pilloff & Santomero, 1997; Amihud, DeLong, & Saunders, 2002; Schmautzer, 2006; Dermine, 2000; Méon & Weill, 2005; Altunbaş & Marqués, 2008; Pozzolo, 2008; Valkanov & Kleimeier, 2007; Vennet, 2002; Beitel, Schiereck, & Wahrenburg, 2004; Huizinga, Nelissen, & Vander Vennet, 2001; Cornett, McNutt, & Tehranian, 2006; Novickytė, 2010; 2012; Novickytė & Jasienė, 2011) that analyse the issues of mergers and acquisitions in the banking sectors, the impact of banking consolidation processes on the stability of the financial sector, and operating efficiency management in banks deserve a special mention. In the process of banking mergers and acquisitions, identifying the value of the assets and liabilities of the bank becomes of particular importance, and therefore the scientific papers that deal with the methodologies and the topic of assessing banks' value should be noted specifically. This problem has been given a lot of attention and analysis by Dermine (2009; 2010), Koller, Goedhart, Wessels (2010), Adams, Rudolf (2010), Halaj (2012), Strumickas, Valančienė (2006), Caprio, Laeven, Levined (2007), Geretto, Mazzocco (2010) and Novickytė (2012b).

As the essential element of the financial brokerage system, banks perform a unique role in conducting indirect financing operations. On top of that, being part of the financial system, they can substantially cut the costs of transactions, diffuse risks, and assess information coming from financial markets. Nonetheless, even though the exclusive role that banks play in the financial system has been broadly covered by many authors, it should be noted that, according to Mavrotas and Vinogradov (2007), a bank-dominated financial system can adopt different courses of action: (a) for want of a regulation and supervision mechanism, the bank system may collapse, (b) liquidity injections from the central bank might postpone the collapse of banks for some time, (c) operating restrictions that are imposed on the bank system (such as a ceiling on deposit interest rate) allow banks to raise capital and distribute the negative consequences of a crisis in time (by carrying them forward for future generations), (d) capital adequacy requirements (and those for Tier 2 capital in particular) allow absorbing the negative effects of economic shocks. Ergo, in order to boost their market value, banks could become irresponsible in their actions, leading to higher systematic risk. This is of particular importance as the EU financial system rests on a model of banking activity.

The analysis of scientific theories that explain the factors behind mergers and acquisitions prompts that identifying theory and a set of factors that cause merger and acquisition transactions to be made in the market is a difficult thing to do. The authors opine that the different economic situations and levels of development of countries result in various motives to enter into this kind of transaction. In spite of that, it can be said that recently the occurrence of merger and acquisition transactions has been driven by factors pertaining to neoclassical and behavioural theory. The authors believe that, in addition, to rationally valid financial motives, the making of transactions is mainly affected by a variety of behavioural deviations, as well.

In retrospect, there have been a few cases over the past decades where banks would acquire other banks, thus earning new opportunities to expand their business. By acquiring their competition, banks would reduce the level of competition on the market; increase their market share and, cut down service costs, thanks to the effect of the economy of scale.

The causes of bank mergers and acquisitions that many authors have identified could be put into three categories: maximisation of the bank's assets/return, seeking to satisfy selfish ambitions of the bank's management, and factors that create a favourable environment for such transactions to take place.

Having analysed and systematically arranged their resources, the authors suggest that the factors should be grouped by types of synergy that cause mergers and acquisitions (see Fig. 1).

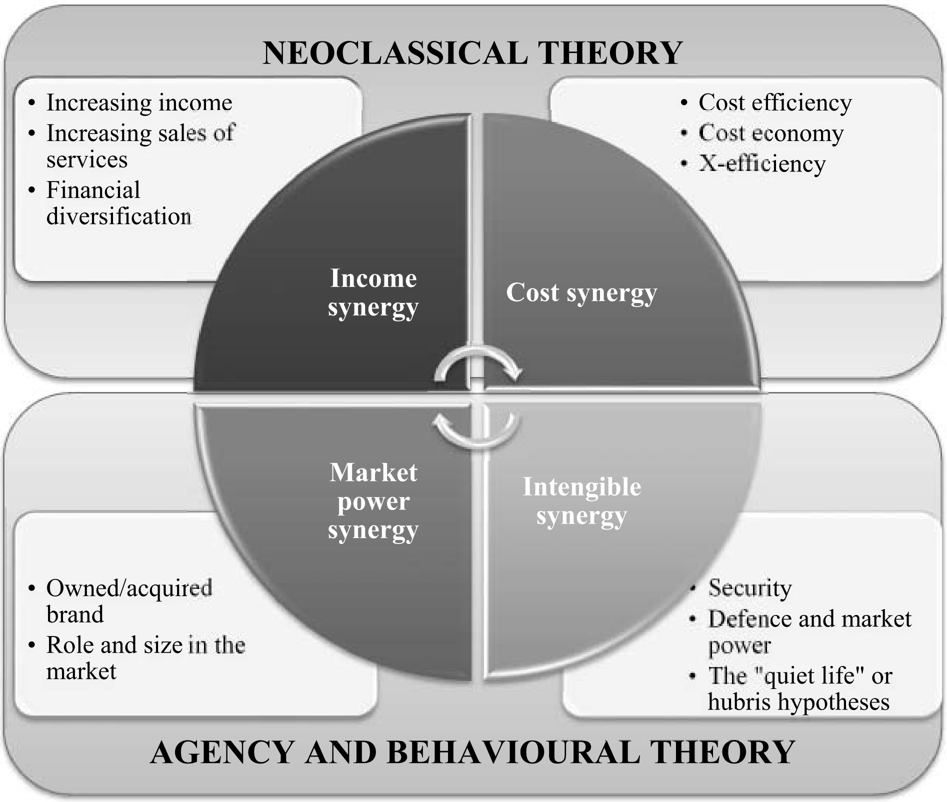

Figure 1. Types of synergy that cause mergers and acquisitions on the market

Source: made by the authors based on (Bottiglia, Gualandri, Mazzocco, 2010; Dermine, 1999; 2002).

Notably, individual synergies could be attributed to the predominant theories of corporate management that are used to account for the motives of mergers and acquisitions. The synergy of income and costs is considered part of neoclassical theory, which explains the causes of mergers and acquisitions that are usually caused by economic disorders. Agency and behavioural theories cover the reasons of intangible and the market power synergy, which are generally initiated by a variety of psychological divergences.

There is yet another way to break down the factors, one that has been proposed by Lambkin and Muzellec (2008). They maintain that consolidation processes are driven by factors both macroeconomic and microeconomic. Macroeconomic factors include factors like growing globalisation and international financial systems, liberalisation of movement of capital, interior financial regulation, technological advancement, and higher levels of competition. Microeconomic factors include decisions from the bank management to merge with or to acquire another company to raise or maintain the value of the undertaking and to effectuate higher competitive pressure on other market players.

While analysing motives of banks and other participants in the financial sector, authors (Bottiglia, Gualandri, & Mazzocco, 2010) split them into the interior and international motives. Still, it should be said that this type of classification does not always precisely define the underlying causes, as identifying transactions that could be attributed to the domestic or international market can sometimes be hard on a market affected by globalisation.

The analysis of factors that cause mergers and acquisitions in banking implies that mergers and acquisitions in banking are driven by different motives, which shift in line with cycles of the economy. It has been noted that, at times of recession or crisis, banks are apt to merge, driven by the motive of financial stability (albeit it might be presupposed by a regulatory body or the government), yet when the economy is on the rise, bank mergers and acquisitions are usually caused by an ambition to increase the return for and the wellbeing of the shareholders. It can be said that the goals of a bank's shareholders typically never coincide with the overarching aim of the country to have a stable banking system. Mergers of smaller banks could be just an initial phase to generate added value for a potential new (and bigger) investor (bank) to establish itself on the market. Small bank consolidation allows reaching economy of scale and expanding the chain and generating additional profits.

It may be said that mergers and acquisitions carry a tangible value in today's global market. Thanks to such transactions, banks can aim for a full array of synergy effects, offer competitive financial brokerage services to the market, and boost the wellbeing of their shareholders. However, this type of transaction leads to financial conglomerates and other financial formations of systemic importance, significantly affecting the stability of the financial system of the country or region. This outcome of bank mergers and acquisitions might have negative consequences as well, as it leads to big banks becoming "too important for the market" and potentially abusing their market position and negatively affecting financial stability.

When it comes to analysing mergers and acquisitions in banking, it is important to identify and evaluate potential relationships between the consolidation of the sector and the stability of the financial system. One indicator of the financial system's stable performance is the activity of the banking sectors, because banks, as some of the most active participants in the financial systems, redistribute a significant portion of free moneys in search for a higher yield. Also, as commercial entities, they look for possibilities to manage their resources in the most efficient way possible, and to obtain more benefits for their shareholders at lowest possible cost, which may again bring about adverse consequences for the entire financial sector. One of the goals of optimisation of banking activities is to attain an economy of scale in different fields of business. This objective is, as often as not, the main reason for consolidation to take place in the banking sector. The exceptional rate at which the number of mergers and acquisitions has been growing in Europe justifies saying that this was one of the chosen options to consolidate business. The changes that have taken place in the global environment over the past few decades (such as market globalisation, liberalisation of finances and investments, as well as technological developments) provided grounds for certain conditions to emerge, which facilitated the process of consolidation within the financial system. Global markets became integrated and closely interrelated with financial, social, legal, and other ties. United to create an integrated alliance, the European Union is a major case in point. Nevertheless, the more integrated the market is, the easier it is for the "contagion effect" (or systematic risk) to spread. This fact poses an especially big threat in highly integrated markets; the negative consequences of integration and the "contagion effect" was clearly visible during the global financial crisis, when a shortage of confidence in financial markets rapidly spread to other markets, resulting in many adverse consequences for the economies of countries, complete with collapsing banks, liquidity issues in the financial system, deteriorating expectations in financial markets, growing national debts, and so on.

As a result, financial stability goes hand in hand with systematic risk, which can result in a loss of economic value or confidence in the financial system, and, consequently, a significant negative impact on the economy.

Hence, the future outlook for mergers and acquisitions to take place in the banking sector is obscure. We can say that concentration of operating functions aiming for efficiency, development of technology and management skills, business diversification, harmonisation and integration of the retail payments market could be the underlying reasons for the integration and consolidation of banks in the future. By contrast, all economic and political discussions pertaining to any restrictions of the size of the bank within the limits of the too-big-to-fail concept could encourage dissolution of such financial groups, leading to a process that is the opposite of consolidation.

However, banks wishing to raise their market value might behave irresponsibly (especially if they have big financial leverage), thus increasing the systematic risk on the market. As a result, financial integration can create conditions for this risk to spread unless domestic or regional financial players support the development of a smooth regulatory and supervisory system. It is, therefore, important to develop a regulatory and supervisory system that will ensure the development of a sustainable and safe banking sector, where key participants of the financial system could efficiently allocate their available funds. And it is, therefore, critical to manage the process of bank consolidation efficiently and to clearly define the management of financial conglomerates, thus kerbing the potential spread of "contagion" (systematic risk) in the market.

However, consolidation has another side to it: will banks, while trying to generate benefit for themselves, be able to guarantee the right conditions for the stability of the financial sector to develop?

The EU's ambition to establish a Single Market seems to be promoting competition, yet in their quest for return, financial institutions are looking for ways to minimise their expenditures and are trying to gain a competitive edge by merging with other institutions or by just acquiring them, striving for operating efficiency in that way. However, this goal of a financial entity – the bank – may not always coordinate well with the objective of the market or of separate institutions - to guarantee financial stability. This matter becomes particularly relevant in the light of the too-big-to-fail concept (Mishkin, 1999). For this reason, this kind of consolidation can have an opposite effect by reducing the efficiency of the market itself and promoting a counter-competitive environment (Sood & Ahluwalia, 2009).

As a result, market supervision adjustments applied on the pan-European level could significantly affect consolidation processes in banking. Notably, centralised supervision can, to some extent, pose a threat of moral risk, as large bank supervision would be vested in interstate bodies, which could create a conflict of interests between state and regional supervisory bodies. Still, a single supervisory system should be considered necessary, as large banking groups operating in different European states strengthen the mutual relationship of such countries.

To sum up, it can be said that the financial system stability is a crucial prerequisite for efficient moneys redistribution among savers and borrowers, the role of banks. The stability of the system is closely related with the business strategy of the bank, market concentration levels and the local economic landscape. It should be stressed that the global financial crisis has provided conditions to rethink and improve the banking supervisory and regulatory system. New bank operating requirements instruct banks to modify their business strategies. These developments could be tied with banks' opportunities to expand and seek better integration into new markets through mergers and acquisitions with entities that are present there.

Research methodology

Authors used expert analysis methods in order to determine the ongoing consolidation in the banking sector and the possible effect of this process on the country's financial system stability (see Appendix 1 for questionnaire).

Research was involved by 9 experts; each expert's weight is equal: there is no separate group of experts or expert assigned greater weight or more dedicated / lower proportion. Determining the number of experts guided by methodological assumptions formulated in classical test theory. Libby (1978) argues that a small group of experts to evaluate precisely the same problem as the large group of experts. Classical test theory justifies that the sum of reliability and the number of experts linked fading fast nonlinear relation, so the aggregated small group of experts with equal weights decision accuracy assessments are essentially similar to a large group of experts' decision accuracy evaluations. According to classical test theory and regardless of other statistical indicators, it can be stated that 9 experts reliability is almost 90 per cent.

Given the fact that the expert research method depends heavily on the competence of the experts involved in the investigation, this study included the academic community, the banking system and the banking market representatives who have experience and knowledge in the area of expertise related to the subject.

The questionnaire used a Likert scale, when asked to select from 1 (disagree strongly / not necessary) ... to 5 (very agree / relevant).

Expert evaluation is based on the assumption that the solution can be obtained only if the expert opinions align.

One of the most commonly used test in the compatibility criteria for assessing the compatibility of expert is the Kendall concordance coefficient. To calculate this coefficient of concordance the expert's evaluations must be ranked.

The concordance coefficient W is calculated according to the formula (1) (Kendall, 1970):

$$W = \frac{12S}{r^2 \times m\left(m^2 - 1\right)} \ . \tag{1}$$

Here: r is the number of expert's m - number of evaluated criteria.

Assessing internal consistency the scale of the questionnaire is usually used Cronbach's alpha coefficient. Cronbach's alpha coefficient is calculated by the following formula (Pukėnas, 2009; Cronbach, 1951):

$$\propto = \left(\frac{k}{k-1}\right) \times \left[1 - \frac{\sum_{i=1}^{k} S_i^2}{S_p^2}\right]. \tag{2}$$

Here: k is the number of elements of the scale; S_i^2 – i-th element of the variance of the scale; S_p^2 – the total variance of the scale.

The standardized alpha coefficient is intended to evaluate the answers to individual questions and the heterogeneity of variances. It is also known as the Spearman-Brown stepped-up reliability coefficient and is calculated by the following formula:

$$\propto = \frac{k \times \overline{r}}{1 + (k-1)\overline{r}} \ . \tag{3}$$

Here: $\overline{r}$ is the average pair correlation coefficient of all the answers to the questions.

To be able to present analysis of mergers and acquisitions that had occurred in the Lithuanian banking sector, the authors had chosen the case study method that imbued the analysis of the issue with a holistic aspect and allowed addressing the issue in a wider context. The case analysis method enabled the authors to select samples of mergers and acquisitions (restructuring arrangements) that had taken place in Lithuania's banking sector, affecting the financial system of the country. A theoretical assumption prompted this kind of choice that the consolidation happens when several market players merge, this type of merger or acquisition producing a single market player: in this case, a single bank.

Results and findings of the impact of bank mergers and acquisitions on the domestic financial system

The questionnaire was designed to determine the factors and expert advice on the ongoing consolidation in the banking processes and the potential impact of this process on the domestic financial system stability. The questionnaire consisted of three main issues that have been detailed. To summarize the experts answers to the first question of whether the ongoing consolidation (mergers and acquisitions) in the banking market processes the stability of the financial system it is concluded that in the short and medium term banking consolidation processes could stabilize the domestic financial system, but on the other hand this process can form high concentrations and can damage the market; also it may limit the development of smaller banks and may increase the risk of moral hazard. As well, consolidation may have adverse social aspects leading to job losses in the banking sector. In addition, it should be noted that the country's financial system becomes more stable, if acquired a bank which has an experiencing operational difficulties, but an increased risk of a merger between two higher-risk entities, integration and operation of cultural differences can have an adverse effect on their business after the merger.

The second question (see Table 1) was composed of factors that potentially affect the stability of the banking sector. Experts were able to rate and certified alternatives by giving them a different number of points. The statistical reliability of responses to the question ("Factors contributing to the stability of the banking sector") is presented in Appendix 2.

Table1. Descriptive statistics results of the experts answers

	The experts of academic community (average)	The experts from banks regulation and supervision (average)	The experts from banking market (average)	Mean (all experts)	Standard Deviation	Kurtosis	Skewness	Min	Max
Concentration in the banking sector	3,33	4,00	4,33	3,89	0,928	1,354	-0,944	2	5
Competition in the banking sector	3,33	4,00	3,67	3,67	0,707	4,000	-2,121	2	4
Banking supervision system in the country / region	3,67	4,00	4,33	4,00	0,866	4,000	-1,485	2	5
Deposit insurance system	2,33	4,33	4,33	3,67	1,118	-0,800	-0,537	2	5
The size of the banking sector	2,67	4,33	2,33	3,11	1,054	-0,546	0,552	2	5
Market access restrictions	2,67	4,67	3,67	3,67	1,000	-0,643	-0,107	2	5
Banks operating restrictions	4,00	4,00	3,67	3,89	0,928	1,354	-0,944	2	5
Regulations and standards system	4,00	4,33	3,67	4,00	1,000	0,786	-0,964	2	5
Sanctions system	3,67	4,00	3,67	3,78	0,833	2,427	-1,166	2	5
Profitable and efficient banking	3,33	4,33	4,33	4,00	0,866	4,000	-1,485	2	5
„Too big to fail" concept	2,67	4,33	2,67	3,22	0,972	-0,009	0,502	2	5
Bank of indirect activities (eg., an investment) taxation	2,67	4,00	3,33	3,33	0,707	-0,286	-0,606	2	4
The actions foreseen in the case of bank insolvency	3,67	4,33	3,67	3,89	0,928	1,354	-0,944	2	5
Government involvement in the management of the country's banks (the existence of state-owned banks)	3,67	3,67	4,00	3,78	0,833	2,427	-1,166	2	5
One country / region domination of capital in the banking sector	2,67	3,67	3,33	3,22	0,667	-0,040	-0,254	2	4
A country's economic freedom	1,67	3,33	3,33	2,78	0,972	-0,009	-0,502	1	4
National / regional economic stability	2,00	4,00	4,33	3,44	1,130	-1,390	-0,492	2	5
Assets quality requirements	2,33	4,33	4,00	3,56	1,014	-0,425	-0,655	2	5
The bank's capital structure	3,00	4,67	3,33	3,67	1,000	-0,643	-0,107	2	5
The application of international accounting standards	3,00	4,33	4,33	3,89	0,928	1,354	-0,944	2	5

Source: own calculation.

Expert answers to this question varied. Distinct differences were observed among the academic community and experts from the banks (mostly deviant from the mean). However, the panel's opinion can be summarized as follows: it is claimed that the main factors that determine the stability of the banking sector are:

– The banking supervision system in the country.
– Subjectivity to a system of standards.
– A profitable and efficient operation of the banks.

These factors have a positive impact on the stability of the banking sector.

The academic community has identified the most important factors of bank activities and restrictions applicable to the reference system. In addition to these factors, professionals releases, and other factors that determine the stability of the banking sector: the deposit insurance system, the size of the banking industry, entry restrictions, "too big to fail" concept, the actions of banks in case of insolvency, asset quality, the bank capital structure and the application of international accounting standards. All these factors ensure the stable operation of the system. The banking market experts, the concentration of the banking sector and the economic stability of the country are also lead factors in determining banking sector stability. It is clear that experts from the banking market regulation system identified factors that are related to banking activities restrictions and promote transparency of banking activities. Market experts had a holistic assessment of the problem and said that stability depends on the stability of the region or country, and the concentration of banking. Experts did not detail their view of whether the concentration of the market provides stability or vulnerability. It should be noted that the researchers do not have the same opinion: the proponents of "concentration-stability" Boyd, Prescott (1986), Boot, Thakor (2000), Boyd, De Nicoló, Smith (2004), Park, Peristiani (2007), Allen, Gale (2000; 2004), Beck, Demirgüç-Kunt, Levin (2006), Méon, Weill (2005), Novickytė (2010), Matutes, Vives (2000) argue that higher levels of concentration in the banking system is characterized as a more stable, whereas the Mishkin (1999), Uhde, Heimeshoff (2009), Caminal, Matutes (2002), Boyd and Nicoló (2005), Beck, Demirgüç-Kunt, Levin (2006), Cetorelli, Hirtle, Morgan, Peristiani, Santos (2007), De Nicoló, Bartholomew, Zaman, Zephirin (2003) argue that the higher concentration of the banking system, the more vulnerable it is; some researchers (Ruiz-Porras, 2008; Deltuvaitė, 2009) argue that there is no direct concentration-stability relationship.

The last question allowed the experts to identify measures that would allow a small open economy to achieve financial stability and security. Experts agreed that the promotion of competition in the banking sector and active foreign financial institutions in the capital of local banks ensure, or at least keep a small open economy and financial system stable. Academic experts added that mergers and acquisitions among domestic banks and (or) between foreign banks and domestic banks also contribute to the stability of the financial system. Based on this result, it can be stated that the academic community support "concentration-stability" view.

The analysis of the Lithuanian banking market[1] (see Table 2) shows that the market was held in various banking restructuring processes in order to strengthen the sector. Commercial bank Ancorobank, when faced with operational difficulties was acquired by the group of entrepreneurs and changed its name. JSC Industrijos Bank and AB Vystymo Bank were purchased by Latvian and Finnish banks. Finally, the Government of the Republic of Lithuania, in order to modernize the banking sector and ensure its continuity, tried to attract strategic investors in this sector. For this reason, the Lietuvos Taupomasis Bankas and the Lietuvos Žemės Ūkio Bankas

[1] The more detailed analysis of mergers and acquisitions in Lithuania banking market is presented in Novickytė, L.; Pedroja, G. 2014. Banking consolidation as value creation to the buyer and the financial system (case of Lithuania), *Journal of Security and Sustainability Issues* 4(2): 159–173. DOI: http://dx.doi.org/10.9770/jssi.2014.4.2(5)

were sold to strategic investors: in the first case - Estonian bank Hansapank, and in the second - German NORD/LB Bank.

Table 2. Mergers and acquisitions in the Lithuanian banking sector

Data	Acquired bank	Bank-buyer
December 1995	Commercial Bank Ancorobank	Group of entrepreneurs. Changed name to UAB Medicinos Bankas
March 1998	AB Lietuvos Valstybinis Komercinis Bankas	AB Lietuvos Taupomasis Bankas
December 1999	AB Bank HERMIS	AB Vilniaus Bankas
January 2000	JSC Industrijos Bankas	AB Parex Bank
December 2000	AB Vystymo Bankas	AB Sampo Bank
2001	AB Lietuvos Taupomasis Bankas	AB HANSA-LTB (Hansabankas)
2002	AB Lietuvos Žemės Ūkio Bankas	AB NORD/LB Bank
September 2009	AB Bank Finasta	AB Bank SNORAS
February 2013	AB Ūkio Bank	AB Šiaulių Bank

Source: made by the authors based on (Lietuvos banko metų ataskaitos, 1996-2002)

AB Vilniaus Bankas and AB bank HERMIS case of a merger in Lithuania's banking sector, which resulted in an acquisition deal, is both unique and intricate. The joint bank made up of AB Vilniaus Bankas and AB bank HERMIS significantly increased market concentration levels, established a monopoly in the market and was in a position to take advantage of this situation, creating added value for itself. Also this merger deal was important that it secured the stability of the financial sector. The transaction to restructure AB Lietuvos Valstybinis Komercinis Bankas is both unique and particular to its features. That deal by definition was not a typical merger and acquisition. However, the transaction played a critical role in Lithuania's economy by assuring sustained operation of the financial sector. This outcome of the transaction – the breaking break down of the bank – helped even out stability fluctuations in the Lithuanian financial sector. The recent restructuring arrangement of AB Ūkio Bankas in Lithuania showed that giving out a bank's business (by splitting its assets and liabilities into "good" and "bad") might be a proper instrument to guarantee the stable running of the financial system. The authors argue that the transactions to acquire AB bank HERMIS and AB bank FINASTA were made with the purpose of creating value for the acquirers, AB Vilniaus Bankas (and SEB as its strategic investor), and AB bank SNORAS. At the same time, we cannot disregard the "too big to fail" concept because new banks expanded their market share to gain weight in the financial system (AB Vilniaus Bankas). To sum up, it should be noted that the acquisition of AB bank HERMIS was also driven by the willingness to guarantee the stability of the financial system. Nonetheless, one should not forget that even though it is an institution of systematic import, the bank is also a profit-making company, and therefore the goal of strategic shareholders to derive financial benefit is always met (the result of this transaction was, in the short term, financial system stability, and in the long term, return for the shareholders).

Most of the mergers and acquisitions which have taken place in the Lithuanian banking sector were inspired by the desire to ensure the financial stability of the system. Is possible identify factors that affect these transactions: acquired bank's market share (or specific areas of activity), loan portfolio growth and the quality of the target bank, the bank's interest margin and the target bank's capital ratios, the size of the banking sector in the country and the market concentration and "too big to fail" concept.

Nowadays Lithuania's banking sector, just like that in other European states, is possessed of a high level of concentration, which could significantly affect financial system stability.

Conclusions

Mergers and acquisitions in banking are driven by factors of tangible and intangible synergy. The key motives, for entering into this type of transaction, fluctuate depending on the economic situation of each country. Notably, at times of recession banks tend to merge driven by the promise of financial stability, yet usually deals are made in pursuit of economic benefits, which constitute return for and wellbeing of shareholders. It should be concluded that the aspect of financial stability in mergers and acquisitions makes an appearance in the short term, most commonly as a consequence of some actions on the government's part, with the motive of financial benefit predominant in the long run.

The theoretical analysis allows identify the underlying factors that drive mergers and acquisitions: the goal to minimize risks through diversification of the financial structure and to reach economy of scale through financial service transactions (attaining a synergy of income and costs), and the desire to procure market power and security.

The result of mergers and acquisitions in banking is a local or international bank. Sometimes, a merger of providers of different financial services results in a financial conglomerate that significantly affects the stability of the financial system, as operations of such a group might have an impact on the stability of the country's financial system. The authors believe that the establishment of financial conglomerates creates a conflict between the country of origin and country of operation, and especially so when the financial conglomerate is apt to run into financial difficulties. Also, financial conglomerates can take advantage of their significance in the market and become an institution that is "too big to fail", thus accepting relatively higher risks, which leads to a danger of moral damages.

Analysis showed that mergers and acquisitions in banking are an appropriate instrument to ensure sustainable domestic financial system development. Also, a string investor gives the bank an opportunity to tackle its liquidity and capital issues; the residual joint bank has a bigger capital base, allowing it to extend credit to large-scale projects and issue syndicated loans. Nevertheless, mergers and acquisitions sometimes may have their negative aspects: sometimes the value of the bank can be miscalculated in a merger/acquisition; the bank's goodwill resulting from a merger/acquisition can be depreciated with the bank establishing a term for such depreciation, which grants the bank an opportunity to manipulate its profits, a joint bank significantly increased market concentration levels, established a monopoly in the market and was in a position to take advantage of this situation, creating added value for itself.

References

Adams, M., & Rudolf, M. (2010), *A new approach to the valuation of bank*s. WHU, 1-32.

Allen, F., & Gale, D. (2000*), Comparing Financial Systems*. MIT Press.

Allen, F., & Gale, D. (2004), Competition and Financial Stability. *The Journal of Money, Credit and Banking*, 36(3), 453-480.

Altunbaş, Y., Marqués, D. (2008), Mergers and acquisitions and bank performance in Europe: The role of strategic similarities. *Journal of Economics and Business, 60*, 204–222.

Amihud, Y., DeLong, G. L., Saunders, A. (2002), *The Effects of Cross-Border Bank Mergers on Bank Risk and Value.* Available from: <http://ssrn.com/abstract=307463>

Ayadi, R., Pujals, G. (2005), *Banking mergers and acquisitions in the EU: overview, assessment and prospects.* Vienna: SUERF.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2003), Bank concentration and crises. *NBER working paper*, 9921, 43.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2006), Bank concentration, competition, and crises: First results. *Journal of Banking and Finance*, 30, 1581–1603.

Beitel, P., Schiereck, D., Wahrenburg, M. (2004), Explaining the M&A-success in European bank mergers and acquisitions. *European Financial Management, 10*(1), 109–139.

Boot, A., & Thakor, A. (2000), Can relationship lending survive competition? *Journal of Finance*, 55, 679–713.

Bottiglia, R., Gualandri, E., & Mazzocco, N. G. (2010), Consolidation in the Financial Industry. Esantis R. Bottiglia, E. Gualandri, & N. G. Mazzocco, *Consolidation in the European Financial Industry* (p. 1-17), Basingstoke: Palgrave MacMillan.

Boyd, J. H., & De Nicoló, G. (2005), The Theory of Bank Risk Taking and Competition Revisited. *The Journal of Finance*, 60(3), 1329-1343.

Boyd, J., & Prescott, E. (1986), Financial intermediary-coalitions. *Journal of Economic Theory*, 38, 211–232.

Boyd, J., De Nicoló, G., & Smith, B. (2004), Crises in competitive versus monopolistic banking systems. *Journal of Money, Credit and Banking*, 36, 487-506.

Caminal, R., & Matutes, C. (2002), Market Power and Banking Failures. *International Journal of Industrial Organization*, 20(9), 1341-1361.

Caprio, G., Laeven, L., & Levine, R. (2007), Governance and bank valuation. *Journal Financial Intermediation*, 16, 584–617.

Cetorelli, N., Hirtle, B., Morgan, D., Peristiani, S., & Santos, J. (2007), Trends in Financial Market Concentration and their Implications for Market Stability. *Federal Reserve Bank of New York Economic Policy Review*, 13, 33-51.

Cornett, M. M., McNutt, J. J., Tehranian, H. (2006), Performance Changes Around Bank Mergers: Revenue Enhancements versus Cost Reductions. *Journal of Money, Credit, and Banking, 38*(4), 1013-1050. doi:10.1353/mcb.2006.0053

Cronbach, L. J. (1951), Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334.

Davis, S. I. (2000), *Bank mergers: lessons for the future.* Basingstoke: MacMillan Press Ltd.

De Nicoló, G., Bartholomew, P., Zaman, J., & Zephirin, M. (2003), Bank consolidation, internalization, and conglomeration: trends and implication for financial risk. *IMF Working Paper*, 03/158, 45.

Deltuvaitė, V. (2009), Koncentracijos įtakos bankų sistemos finansiniam stabilumui tyrimas. *Ekonomika ir vadyba*, 14, 156-165.

Deltuvaitė, V. (2012), The importance of systemic risk management in the banking sector. *Economics and management*, 17(3), 869-878.

Deltuvaitė, V., & Vaškelaitis, V. (2007), Competition, concentration, efficiency, and their reiationship in the Lithuanian banking sector. *Taikomoji ekonomika: sisteminiai tyrimai*, 1(1), 11-30.

Deltuvaitė, V., Vaškelaitis, V., & Pranckevičiūtė, A. (2007), The Impact of Concentration on Competition and Efficiency in the Lithuanian Banking Sector. *Engineering Economics*, 4(54), 7-19.

Dermine, J. (1999), The Economics of Bank Mergers in the European Union: a Review of the Public Policy Issues. *INSEAD Working Paper*, 60.

Dermine, J. (2002), *European Banking: Past, Present and Future.* Fontainebleau: INSEAD.

Dermine, J. (2009), *Bank valuation and value-based management: deposit and loan pricing, performance evaluation, and risk management*. New York: McGraw-Hill, Inc.

Dermine, J. (2010), Bank Valuation: with an Application to the Implicit Duration of non-Maturing Deposits. *International Journal of Banking, Accounting and Finance, 2*(1), 1-30. doi:10.1504/IJBAAF.2010.031573

Fiordelisi, F. (2009), *Mergers and Acquisitions in European Banking.* Basingstoke: Palgrave Macmillan.

Geretto, E., & Mazzocco, G. N. (2010), M&As in Banking: measurement of some effects. From: R. Bottiglia, E. Gualandri, & G. N. Mazzocco, *Consolidation in the European Financial Industry* (1 leid., p. 36-47), London: Palgrave MacMillan.

Hałaj, G. (2012), Systemic Valuation of Banks - Interbank Equilibrium and Contagion. *Advances in Network Analysis and its Applications*, 18, 1-24.

Huizinga, H. P., Nelissen, J. H., Vander Vennet, R. (2001), Efficiency Effects of Bank Mergers and Acquisitions in Europe. *Ghent University working paper, 2001/106*, 40.

Kendall, M. (1970), *Rank correlation methods.* London: Griffin.

Koller, T., Goedhart, M., & Wessels, D. (2010), *Valuation: measuring and managing the value of companies*. New Jersey: John Wiley & Sons, Inc.

Lambkin, M., Muzellec, L. (2008), Rebranding in the Banking Industry Following Mergers and Acquisitions. *International Journal of Bank Marketing*, 26(5), 328–352. doi:10.1108/02652320810894398

Lietuvos banko metų ataskaitos. (1996-2002), Available from: < http://www.lb.lt/leidiniai>

Libby, R., Blashfield, K. R. (1978), Performance of a composite as a function of a number of judges. *Organizational Behavior and Human Performance, 21*, 121-129.

Matutes, C., & Vives, X. (2000), Imperfect Competition, Risk Taking, and Regulation in Banking. *European Economic Review*, 44(1), 1-34.

Mavrotas, G., & Vinogradov, D. (2007), Financial sector structure and financial crisis burden. *Journal of Financial Stability* (3), 295-323. doi:10.1016/j.jfs.2007.06.001

Méon, P. G., Weill, L. (2005), Can mergers in Europe help banks hedge against macroeconomic risk? *Applied Financial Economics, 15*, 315-326.

Mishkin, F. S. (1999), Financial Consolidation: Dangers and Opportunities. *Journal of Banking and Finance*, 23, 675-691.

Novickytė, L. (2010), Bankų konsolidacijos procesas ir įtaka finansų stabilumui. *Mokslas - Lietuvos ateitis*, 2:2, 62-68.

Novickytė, L. (2012a), The effects of a new financial supervisory system on consolidation in banking sector. *Вiсник Київського національного університету імені Тараса Шевченка. Экономiка, 141*, 26-30.

Novickytė, L. (2012b), Bankų vertės nustatymo metodologiniai aspektai. *Viešieji ir privatūs aktyvai: transformacijų, efektyvaus naudojimo ir vertinimo aspektai*, 122-131.

Novickytė, L., & Jasienė, M. (2011), Banking Consolidation. Challenges and Prospects. *Ekonomia*, 2(14), 244-253.

Park, S., & Peristiani, S. (2007), Are bank shareholders enemies of regulators or a potential source of market discipline? *Journal of Banking and Finance*, 31, 2493-2515.

Pilloff, S. J., Santomero, A. M. (1997), The Value Effects of Bank Mergers and Acquisitions. *Wharton Working Paper Series, 97-07*, 30.

Pozzolo, A. F. (2008), Bank cross-border mergers and acquisitions: Causes, consequences and recent trends. *Economics & Statistics Discussion Paper, 08/48*, 38.

Pukėnas, K. (2009), *Kokybinių duomenų analizė SPSS programa: mokomoji knyga.* Kaunas: Lietuvos kūno kultūros akademija.

Ruiz-Porras, A. (2008), Banking competition and financial fragility: Evidence from panel-data. *Estudios Económicos*, 23(1), 49-87.

Schmautzer, D. (2006), *Cross-Border Bank Mergers: Who Gains and Why?* Available from: <http://ssrn.com/abstract=924373 >

Sood, A., Ahluwalia, V. (2009), Mergers and Acquisitions in the Banking Sector: an Appraisal. *The Icfai University Journal of Banking Law, 7*(1), 20–36.

Strumickas, M., & Valančienė, L. (2006), Bank Valuation Research: Experience of the Baltic States. *Engineering Economics*, 4(49), 22-28.

Uhde, A., & Heimeshoff, U. (2009), Consolidation in Banking and Financial Stability in Europe: Empirical Evidence. *Journal of Banking and Finance*, 33, 1299–1311. doi:10.1016/j.jbankfin.2009.01.006

Valkanov, E., Kleimeier, S. (2007), The role of regulatory capital in international bank mergers and acquisitions. *International Business and Finance, 21*, 50–68.

Vennet, R. V. (2002), Cross-border mergers in European banking and bank efficiency. *Ghent University working paper, 2002/152*, 49.

Walter, I. (2004), *Mergers and acquisitions in banking and finance : what works, what fails, and why.* New York: Oxford University Press, Inc.

Appendix 1. Expert survey questionnaire

– In your opinion, the consolidation processes (mergers and acquisitions) in banking market providing the stability of the financial system, and why:
– Factors contributing to the stability of the banking sector:

	5	4	3	2	1
Concentration in the banking sector					
Competition in the banking sector					
Banking supervision system in the country / region					
Deposit insurance system					
The size of the banking sector					
Market access restrictions					
Banks operating restrictions					
Regulations and standards system					
Sanctions system					
Profitable and efficient banking					
„Too big to fail" concept					
Bank of indirect activities (eg., an investment) taxation					
The actions foreseen in the case of bank insolvency					
Government involvement in the management of the country's banks (the existence of state-owned banks)					
One country / region domination of capital in the banking sector					
A country's economic freedom					
National / regional economic stability					
Assets quality requirements					
The bank's capital structure					
The application of international accounting standards					

• In your opinion, the small open economy country seeking financial system stability, it should be (there may be more options):
– Promote the concentration of the banking sector.
– Promote competition in the banking sector.
– Seek foreign financial institutions active in local banks.
– Limit foreign financial institutions active participation in local banks.
– Promote mergers take place and (or) acquisition transactions between the local banks.
– Promote mergers take place and (or) acquisition transactions between foreign and local banks.
– Raising one country / region dominance of capital in the banking sector.
– Other (expert can give their opinion):

Appendix 2. Statistical reliability results of the experts answers to the second question

		Sum of the squares	Degrees of freedom	Mean square	Friedman Chi criteria	Reliability
Between the experts		72,211	8	9,026		
	Between variables	19,644[a]	19	1,034	39,015	,004
	Errors	66,456	152	,437		
	Total:	86,100	171	,504		
Total:		158,311	179	,884		

a. Kendall coefficient of concordance W = ,124.

Reliability statistics

Cronbach alfa	Spearman-Brown stepped-up reliability coefficient	The sample size
,952	,955	20