

THE PROFITABILITY AND RISK EFFECTS OF RUSSIAN BANKING INSTITUTIONS' INVOLVEMENT IN BANCASSURANCE: MERGER SIMULATION METHODOLOGY

Alexander V. Ekimov*

National Research Mordovia State University, Russian Federation

Abstract. *This paper presents the methodology taken to evaluate the potential profitability and risk effects of Russian banking institutions' involvement in bancassurance. An original methodology is applied, which was developed by Boyd and Graham, to conduct merger simulations between commercial banks and insurance companies. The methodology is based on mergers between firms, like the accounting principle of consolidation by pooling. This principle entails summing up the balance-sheet indicators of previously independent firms to simulate a hypothetical merger.*

Keywords: *bancassurance, commercial bank, insurance company, financial conglomerate.*

1. Introduction

Convergence in the financial market creates a new class of financial service providers, which is growing rapidly and is serious competition to traditional insurance companies, banks and brokerage firms. A new type of financial institution offers the consumer a whole portfolio of integrated financial services, which leads to the company's growth through entering new markets, diversifying its own products and reducing risks. Interest in the formation of financial conglomerates coincided with the constantly growing trend of convergence of banking and insurance. However, the creation of bancassurance groups leads to a more complex assessment of the risk profile of individual institutions. The risk in a financial conglomerate can manifest itself in a segment, while everything might be fine in other areas.

In addition, the diversification of activities affects the financial position of the firm, determining the relationship between profitability and risk. Many researchers (Varakina 2003; Ivanter 2005; Baele et al. 2007) tried to test the so-called diversification hypoth-

* *Corresponding author:*

Faculty of Economics, National Research Mordovia State University, 68 Bolshevistskaya Str., Saransk 430005, Republic of Mordovia, Russian Federation.

E-mail: alex-saransk@mail.ru

esis in order to evaluate its result for an improvement/deterioration in the risk/profitability profile of the firm. According to some (R. Kunz, J. Liouville), the existence of a systematic link between diversification and the financial success of the enterprise is not confirmed (Kunz 1994), diversification does not always bring benefits (Liouville 1993). According to others (M. Pasquier), diversification is a powerful mean (condition) of increasing efficiency (Pasquier 1994). Both agree that the effect of diversification depends, to a large extent, on the choice of its direction.

2. Literature Review

Most of the research is related to the analysis of diversification in banking. A widely accepted measure of the level of diversification is the ratio between non-interest income and total operating income, which includes all types of income. According to B. Lieven, universal banks (those with a significant share of non-interest income) are less exposed to risk, whereas specialized banks have higher profitability, but the volatility (reaction to business cycles) is greater (Lieven et al. 2004).

L. Laeven and R. Levine proposed a similar calculation, which is called “asset and income diversification.” They propose to calculate it as follows (Laeven and Levine 2007):

$$1 - |2x - 1| \tag{1}$$

where:

x – the share of net loans in total assets or the share of non-interest income in total operating income.

The indicator takes a value from zero to one. The higher the indicator, the higher the level of bank diversification. Using a similar logic, there is the Herfindahl-Hirschman concentration index, which is calculated:

$$DIV=1 - (SH_{NET}^2 + SH_{NON}^2) \tag{2}$$

where:

SH_{NET} – this is the share of net interest income from total operating income;

SH_{NON} – is the share of non-interest income from total operating income.

The index takes a value from 0 (all revenues come from one source) to 0.5 (with an equal percentage of interest and non-interest income).

Finally, some scholars have tried to analyze the value estimate using the coefficient Tobin’s q (Baele et al. 2007), which is calculated by the formula:

$$Q_j = \frac{(\text{market value of assets} + \text{market value of liabilities})}{(\text{book value of assets} + \text{book value of liabilities})} \tag{3}$$

A large number of studies (Schmid and Walter 2009; DeYoung and Karine 2001; van Lelyveld and Knot 2009; Smith et al. 2003; Stiroh 2004; Stiroh 2006) conducted empirical analyses using accounting (management) reporting. Typically, the return on assets (ROA) or return on equity (ROE) is used as standard measures of efficiency (profitability). Risk is often defined as a standard deviation (σ_{ROE} and σ_{ROA}) or as a coefficient of variation, that is, the ratio between the standard deviation of yield and its average value. An evaluation based on risk-adjusted measures is also very common (i.e. ROE / σ_{ROE} and ROA / σ_{ROA}). Finally, the indicator of the probability of bankruptcy of the company can be determined by the Z-score, which is calculated by the formula (the higher the value, the lower the probability of default):

$$Z\text{-score} = \frac{\overline{ROA} + \overline{E/A}}{\sigma_{ROA}} \quad (4)$$

where:

E/A – this is the ratio of equity to total assets.

3. Methodology

3.1. Main Methodology

In this paper, to conduct merger simulations between commercial banks and insurance companies, we will use a modified model that was developed by Boyd and Graham (Boyd and Graham 1986, 2–17) and applied by Genetay and Molyneux (Genetay and Molyneux 1998, 187–220) to investigate the potential risk effects of UK banking institutions' involvement in life insurance. The methodology is based on mergers between firms, like the accounting principle of consolidation by pooling. This principle entails summing up the balance-sheet indicators of previously independent firms to simulate a hypothetical merger.

The methodology comprises the following successive steps:

1. Select the first bank and the first insurer in the sample;
2. Add the assets, profits and equity of both firms for each year of the sample period. As a result, we will obtain time series representing the profitability and equity-to-asset ratio for a hypothetically integrated bank and an insurer;
3. Compute the risk and average return measures over the period for the hypothetical merger;
4. Repeat steps 2 to 4 for mergers of the first bank with every insurer in the sample;
5. Repeat steps 2 to 5 for each bank in the sample. Individual risk and return measures are available for $A * B$ hypothetical mergers (A and B being the total number of banks and insurers, respectively);
6. Derive a summary of risk and return measures for the hypothetical bancassurance industry composed of $A * B$ firms;

7. Compare measures for the hypothetical bancassurance industry to those for the banking industry on a standalone basis.

The above stages of the simulation process should provide an indication of the potential effects of mergers between firms in the banking and insurance industries. It should indicate whether the generalized mingling of both sectors would increase or reduce risk and profitability.

3.2. Risk and return measures:

Return on total assets is used as an indicator of profitability. Unlike return on equity, this measure is not affected by different leverage structure. We measure income as net income after taxes. Total assets are used as the denominator. Return on assets for a bank or insurance company is therefore computed as:

$$\bar{r} = \sum_{i=1}^n \left(\frac{NP_i}{\bar{A}_i} \right) / n \quad (5)$$

where:

\bar{r} – average return;

NP_i – net income after taxes in the i -th period;

\bar{A}_i – average total assets in the i -th period;

i – year from 1 to n from the sample period.

For a hypothetical firm G, the result of the merger of bank D and insurer F, the return for any year i can be computed as:

$$r_{G,i} = \frac{NP_{D,i} + NP_{F,i}}{\bar{A}_{D,i} + \bar{A}_{F,i}} \quad (6)$$

where:

$r_{G,i}$ – return on assets for the hypothetical merger g in the i -th period.

The average return for hypothetical firm G is therefore computed as follows:

$$\bar{r}_G = \left(\sum_{i=1}^n r_{G,i} \right) / n \quad (7)$$

where:

\bar{r}_G – average return for hypothetical firm g over the period.

Three indicators of risk are used in our approach: the standard deviation of returns that indicates the variability of returns, the coefficient of variation of returns that gives a measure of risk-adjusted return and the Z-score measure, developed by Boyd and Graham (Boyd and Graham 1988, 3–20), which provides an indicator of the probability of failure (this measures the number of standard deviations a firm's return would have to fall below its mean before exhausting equity).

The standard deviation of returns on assets is derived as follows:

$$\sigma = \sqrt{\sum_{i=1}^n (r_i - \bar{r})^2 / (n - 1)} \quad (8)$$

where:

r_i – return on assets in the i -th period;

\bar{r} – average return on assets over the n -year period.

The coefficient of variation of return on assets is a measure of risk adjusted for return that is computed as follows:

$$COV = \frac{\sigma}{\bar{r}} \quad (9)$$

Z is used as an indicator of downside risk: the greater the value of Z , the lower the risk of failure and vice versa. Z can be interpreted as a Z -score, i.e., the number of standard deviations below their mean to which returns on assets must fall to incur bankruptcy.

We compute Z from the sample as:

$$Z = \left\{ \sum_{i=1}^n \left(\frac{(E_i + NP_i)}{\bar{A}_i} \right) \right\} / (n * S) \quad (10)$$

where:

E_i – equity in the i -th period;

\bar{A}_i – average total assets in the i -th period;

NP_i – after tax profits in the i -th period;

n – the number of accounting periods;

S – the sample standard deviation of the return on assets $\frac{NP_i}{\bar{A}_i}$

The main advantage of using three different risk measures is that they give a more complete picture of the riskiness of the basic industries. Therefore, this increases the accuracy of the analysis of the potential pooling of both areas of activity.

3.3. A Simulation of the Merge Process

A simulation of the merger process entails the automatic inclusion of the relative sizes of the merging independent enterprises due to the fact that we summarize the assets, net worth and net profit of these firms in absolute terms for each year. Consequently, hypothetical firms adequately reflect the relative size of independent insurers and banks over the period under review. Statistics for the hypothetical industry give an equal weight to any newly formed conglomerate and, therefore, should better illustrate the effect of the bank-insurance strategy of individual firms. A summary of the statistical data for the hypothetical industry is calculated as follows (Formulas 11, 12, 13 and 14):

$$\bar{r}_H = \sum_{h=1}^m \frac{\bar{r}_h}{q} \quad (11)$$

where:

m – number of merged firms;

\bar{r}_H – the average profitability of a hypothetical industry of q firms;

\bar{r}_h – the average profitability for the h -th hypothetical merger.

$$\sigma_H = \sum_{h=1}^m \frac{\sigma_h}{q} \quad (12)$$

where:

σ_H – average standard deviation of return on assets for a hypothetical industry;

σ_h – standard deviation of return on assets for the h -th hypothetical merger.

$$COV_H = \sum_{h=1}^m \frac{COV_h}{q} \quad (13)$$

where:

COV_H – the average value of the coefficient of variation of the profitability of the hypothetical industry;

COV_h – coefficient of variation in return on assets for the h -th hypothetical merger.

$$Z_H = \sum_{h=1}^m \frac{Z_h}{q} \quad (14)$$

where:

Z_H – mean value of Z for a hypothetical industry;

Z_h – Z indicator of the probability of bankruptcy for the h -th hypothetical merger.

Also, calculations are made for each industry separately.

The above procedure does not take into account the features of the merger (the merger can be paid either in money only, or only in securities, or in a combination of money and securities (Gaughan 2011)), which depends on various factors and can influence the capital structure of the newly formed firm. Thus, in this modeling procedure, we assume that the merger will not affect the structure of previously independent firms, which is a priori not true. Another drawback of this analysis is that it ignores the potential synergistic effect or, conversely, the inefficiency caused by the merger. The study of the degree of possible effect of this effect on the bancassurance group is not the goal of this modeling process. Taking this into account, the model presented gives an idea of the lower bounds of the potential benefits from diversification.

4. Description of the Data

The concentration of the Russian banking market remained stably high. The share of assets (liabilities) of a group of credit institutions from 1 to 50 during the entire analyzed period exceeded 80% of total assets. Starting from 2010, the concentration of assets in this group is constantly increasing from 80.23% as of January 1, 2011 to 85.67% as of January 1, 2015. The ratio of capital (own funds) of a group of banks from 1 to 50 to the total amount of equity capital from 2008 to 2013 was slightly less than 80%, but by the end of 2014, it exceeded this value and reached 80.35% (Figure No. 1).

The concentration of the Russian insurance market remains stably high. According to the Central Bank of the Russian Federation, as of December 31, 2014, the number of insurance organizations that control 80% of total assets was 57 (as of December 31, 2013 – 65). Table No. 6 shows that the share of assets (liabilities) of a group of insurance companies from 1 to 50 in comparison with the banking sector is less than 80% during the whole analyzed period. However, there is a pronounced tendency to increase the concentration of assets in this group – starting in 2010, from 61.96% to 73.76% at the end of 2014. The ratio of capital (own funds) of the group of insurers from 1 to 50 to the total volume of equity capital of the insurance sector fluctuated, but starting from 2011, it gradually increases (59.94% as of January 1, 2015) (Figure No. 2).

Thus, for the study, the top 50 commercial banks and insurance companies were selected to calculate various indicators. The annual reports of the Central Bank of the Russian Federation were used as a source of sample identification from commercial banks and insurance companies. This provides a comprehensive source of accounting data for banking and insurance institutions. It should be noted that most of these credit organizations and insurance companies already use bank insurance for this period. As a period of analysis, the five-year plan was taken from 2010 to 2014. Therefore, our final banking and insurance sample includes 100 companies, which are presented in Table No. 1. For all 100 firms, according to the accounting data, three indicators (total assets (liabilities), equity and net profit) were obtained on an annual basis for the period 2010 to 2014.

Table No. 2 shows the average value of assets (liabilities) of the study population of commercial banks and insurance companies at the end of 2010 and 2014. The last line shows the growth rates for the analyzed period, which were calculated as the average growth rate of individual companies from the sample.

Table No. 2 illustrates the features of the banking and insurance industry. First, we see that the assets (liabilities) of commercial banks are, on average, much larger than those of insurance companies in our sample. At the same time, the growth rate of this indicator on average for the period under analysis is slightly higher for insurers (+ 217%).

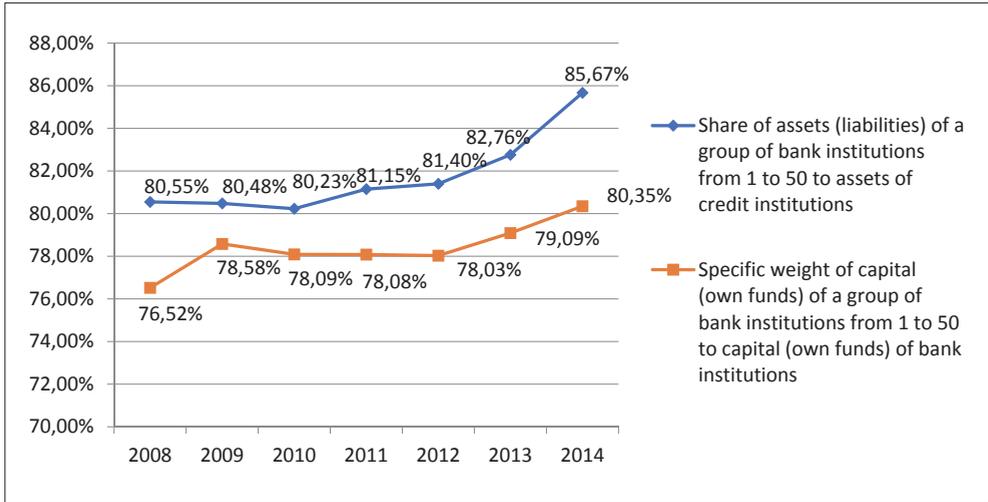


FIGURE No. 1. Specific weight of assets (liabilities) and capital (own funds) of a group of banks from 1 to 50 to total assets (liabilities) and capital (own funds) of the banking sector in Russia, %

Source: author's development according to Rosstat and Central Bank.

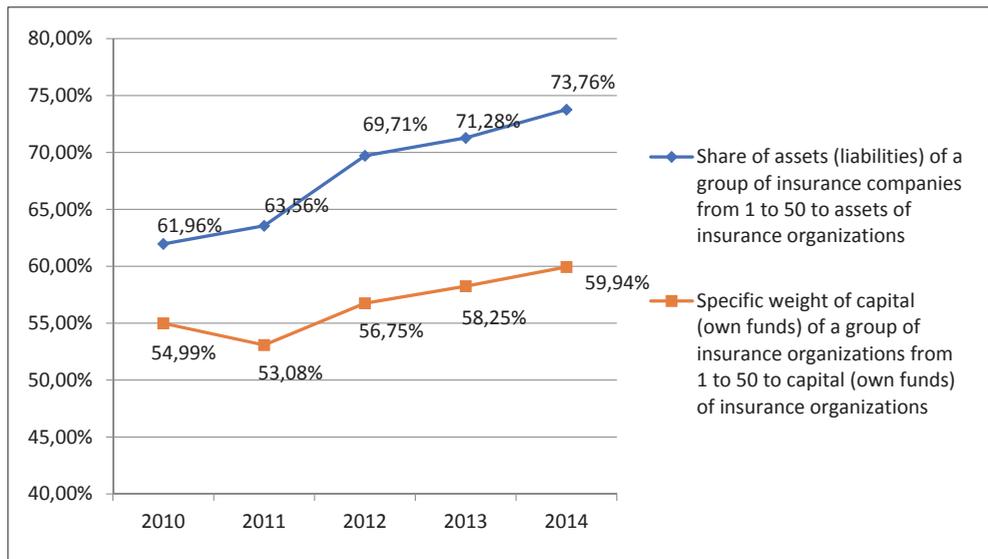


FIGURE No. 2. The specific weight of assets (liabilities) and capital (own funds) of the group of insurers from 1 to 50 to total assets (liabilities) and capital (own funds) of the insurance sector in Russia, %

Source: author's development according to Rosstat and Central Bank.

TABLE No. 1. The selection of commercial banks and insurance companies.

Commercial banks		Insurance companies	
1. SBERBANK ROSSII	26. SMP Bank	1. Rosgosstrakh	26. CIV-LIFE
2. VTB	27. TRAST	2. SOGAZ	27. ERGO RUSSIA
3. GAZPROMBANK	28. ING BANK (EVRAZIYA)	3. Ingosstrakh	28. KAZNA
4. VTB 24	29. HKF BANK	4. RESO	29. SOCIETE GENERALE
5. BANK FK OTKRYTIE	30. BANK ZENIT	5. Alfa Strakhovanie	Strakhovanie Zhizni
6. BANK MOSKVI	31. GLOBEHKS	6. VSK	30. SOGLASIE-VITA
7. ALFA-BANK	32. PETROKOMMERC	7. VTB INSURANCE	31. RSTK
8. ROSSELHOZBANK	33. NOVIKOMBANK	8. SBERBANK-INSURANCE	32. NASKO
9. NKC Bank	34. UBRR	9. SOGLASIE	33. Insurance Company
10. UNICREDIT BANK	35. VNESHXPROMBANK	10. ALLIANZ	Surgutneftegas
11. PROMSVYAZBANK	36. ABSOLYUT BANK	11. Renaissance Insurance	34. RAIFFEISEN-LIFE
12. ROSBANK	37. VOZROZHDENIE	12. MAKC	35. RESPECT-POLIS
13. RAYFFAYZENBANK	38. MINBANK	13. URALSIB	36. YUZHURAL-ACKO
14. KHMB OTKRYTIE	39. SOVKOMBANK	14. Rosgosstrakh-life	37. BNP PARIBAS CARDIF
15. MOSKOVSKIY KREDITNIY BANK	40. VOSTOCHNIY	15. ZHASO	38. RSHB-INSURANCE
16. BANK SANKT-PETERBURG	41. VserosBRR	16. REN LIFE	39. RUSSIAN STANDART INSURANCE
17. ROSSIYA	42. ROSSIYSKIY KAPITAL	17. Insurance group MSK	40. United Insurance Company
18. AK BARS	43. MosoblBank	18. AlfaStrakhovanie-life	41. PPF INSURANCE LIFE
19. RUSSKIY STANDART	44. TRANSKAPITALBANK (TKB)	19. ENERGOGARANT	42. NEZAVISIMAYA STRAKHOVAYA GRUPPA
20. NORDEA BANK	45. OTP BANK	20. Transneft	43. AIG INSURANCE COMPANY
21. BINBANK	46. MTS-BANK	21. KAPITAL INSURANCE	44. OTKRITIE INSURANCE
22. SITIBANK	47. TATFONDBANK	22. COMPANION	45. KUPECHESKOE
23. URALSIB	48. Bank JUGRA	23. REZERV	46. ASKO
24. SVYAZ-BANK	49. RosEvroBank	24. ZURICH	47. CHSK
25. MDM Bank	50. KREDIT EVROPA BANK	25. UGORIA	48. PARI
			49. CHULPAN
			50. BIN insurance

TABLE No. 2. The average value of assets (liabilities) of commercial banks and insurance companies at the end of 2010 and 2014, million rubles.

	Commercial banks	Insurance companies
The average value of assets (at the end of 2010)	485	12
Average assets (at the end of 2014)	1 265	22
Rates of growth	+173%	+217%

Source: author's development.

5. Main Results

5.1. An Empirical Analysis of the Risk and Profitability of Commercial Banks and Insurance Companies

Table No. 3 shows the average returns for each year from the sampling period. The average return on assets is calculated as the simple average of each company in the sample in a particular year. It can be seen that both the banking and insurance sectors followed the macroeconomic situation during the whole period. In 2010 and 2011, a gradual macroeconomic stabilization and economic growth had a positive effect, creating favorable conditions for increasing the resource base and increasing the profitability of the banking and insurance sectors. In 2012, there was a slowdown in the Russian economy, but the main indicators (including profitability) in 2012 and 2013 remained unchanged. In 2014, commercial banks and insurance companies operated under the influence of negative external factors (limited access to external borrowing, a slowdown in the Russian economy etc.), which had a significant negative impact on the profitability of the banking sector, although not so much on the profitability of the insurance industry.

TABLE No. 3. Return on assets of companies from the sample by years.

Year	Commercial banks	Insurance companies
2010	+1.38%	+5.90%
2011	+1.81%	+4.80%
2012	+1.61%	+7.76%
2013	+1.75%	+3.59%
2014	-1.55%	+4.43%

Source: author's development.

Table No. 4 presents the summary statistical data on the risk and profitability of commercial banks and insurance companies. We consider five variables: the average return on aggregate assets (liabilities), the standard deviation of profitability, the coefficient of variation in yield, the probability of bankruptcy Z-score and the average ratio of equity to assets (liabilities).

TABLE No. 4. The characteristics of the risk and profitability of commercial banks and insurance companies.

	Average ROA	σ	COV	Z-score	Average E/A
Commercial banks	1.001%	0.01436	1.434	8.418	11.084%
Insurance companies	5.294%	0.01609	0.304	24.104	37.507%

Source: author's development.

One of the main differences between banking and insurance under the samples is that the latter have a much higher coefficient of equity to assets (liabilities). Considering how the Z-score is calculated, the value of this indicator (probability of bankruptcy) for insurance companies is three times higher. From this we can conclude that insurers are better capitalized than their banking partners. We believe that the difference between the average values of equity to assets is significant, assuming a confidence level of 95%. In addition, the difference between the average Z-score also indicates to us that insurance companies are less risky, which leads to a conclusion about a possible risk reduction in case of merging of these financial institutions (although this may affect profitability). Finally, a comparison between commercial banks and insurance companies shows that risk models differ significantly when measured by standard deviation or Z-score. This is mainly due to the fact that insurers have significantly lower profit volatility than banks.

The following figures show the risk/profitability of our sample on the profile: Figure No. 3 uses the standard deviation of profitability as a risk indicator, Figure No. 4 uses the coefficient of variation and Figure No. 5 – a measure of the probability of bankruptcy Z-score. All of them are depicted in relation to the average return on assets.

Figures Nos. 3 and 5 clearly show that the best compromise for risk/return is achieved through insurance companies, since they have high profitability while maintaining a relatively low risk, which was measured by all three indicators (only the standard deviation was slightly worse than in the banking sector). Commercial banks have relatively low profitability and, at the same time, have rather high risks associated with a negative average profitability in 2014.

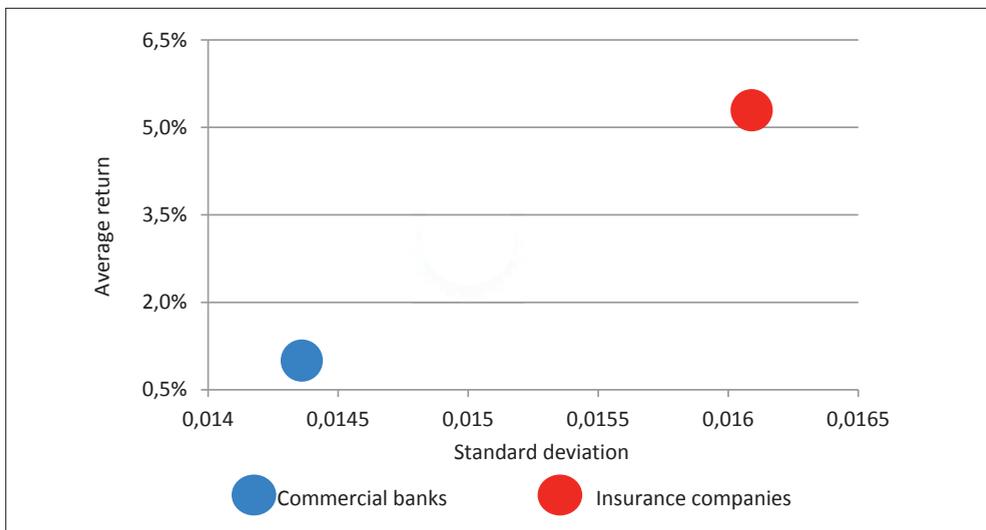


FIGURE No. 3. The profit/profitability profile of commercial banks and insurance companies using the standard deviation of profitability.

Source: author's development.

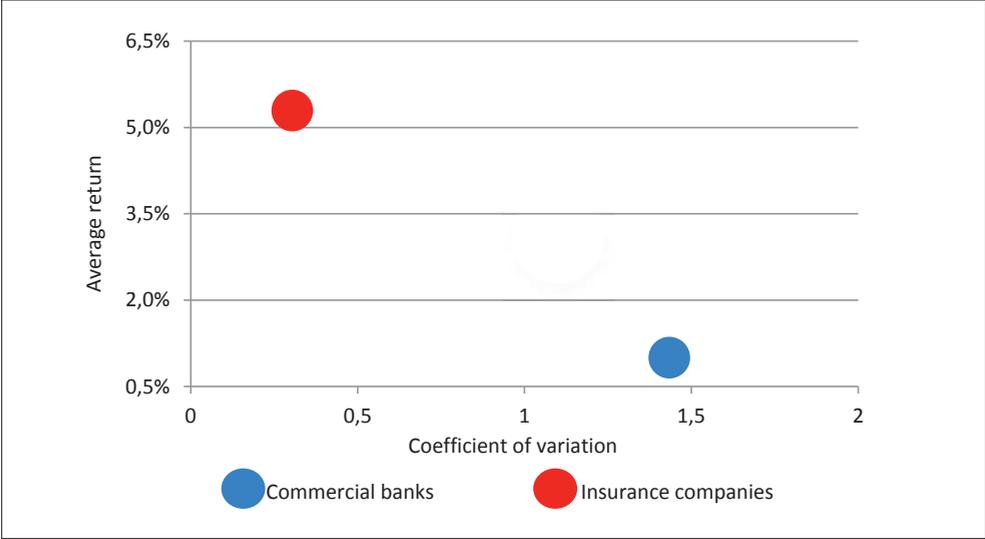


FIGURE No. 4. The profit/profitability profile of commercial banks and insurance companies using the coefficient of variation.

Source: author's development.

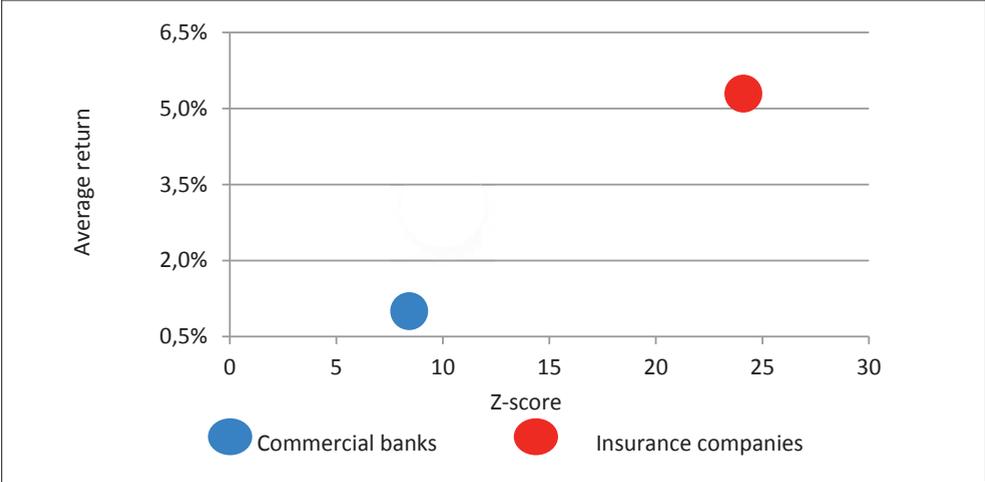


FIGURE No. 5. The profit/profitability profile of commercial banks and insurance companies using Z-score.

Source: author's development.

The correlation of profitability between commercial banks and insurance companies was investigated, which was calculated as the average value of individual correlations between each company from the sample. Correlation should show us how the profitability of these sectors was related during 2010–2014 and whether there is a potential benefit

from diversification. In accordance with the calculated data, the average correlation of the yields of assets (liabilities) between the banking and insurance sectors is close to 0 (the correlation was 0.07647), which indicates that there is no dependence between the sectors. Thus, the areas of activity under analysis are not related to each other and potential benefits from diversification are possible.

5.2. Merger Simulation Analysis of Bancassurance

Now we will directly simulate the merger. The first step in modeling the merger is to select one bank and the insurer, the summation of their assets (liabilities), net profit and equity for the period 2010–2014. From the time series of return on assets (liabilities), we calculate the average return on assets (liabilities), the standard deviation of profitability, the coefficient of variation, the average ratio of equity to assets (liabilities) and the Z-score for the hypothetical bank insurance industry. The average ratio of equity to assets (liabilities) was used to calculate the third measure of risk assessment is the Z-score. The hypothetical industry consists of $n * m$ hypothetical companies, where n is the number of commercial banks and m is the number of insurance companies. Thus, the number of simulated hypothetical firms is 2 500, since we analyzed 50 banks and 50 insurance companies. Statistical summary data are presented in Table No. 5.

TABLE No. 5. The risk/yield characteristics of the simulated merger compared to commercial banks and insurance companies.

	Average ROA	σ	COV	Z-score	Average E/A
Bancassurance	1.166%	0.01283	1.0997	10.302	13.553%
Commercial banks (separately)	1.001%	0.01436	1.434	8.418	11.084%
Insurance companies (separately)	5.294%	0.01609	0.304	24.104	37.507%

Source: author's development.

The modeled merger between commercial banks and insurance companies shows lower risk characteristics for all three indicators compared to commercial banks separately. At the same time, they demonstrate a higher average profitability and the value of equity. However, none of the variables have changed significantly. In general, this combination assumes a slight effect of reducing risk. Figures Nos. 6, 7 and 8 visually show the choice between risk and return, using three risk indicators for the combined bancassurance industry and commercial banks and insurance companies separately. The figures provide a graphic indication of the relative positions of these sectors and the potential benefits brought about through hypothetical mergers.

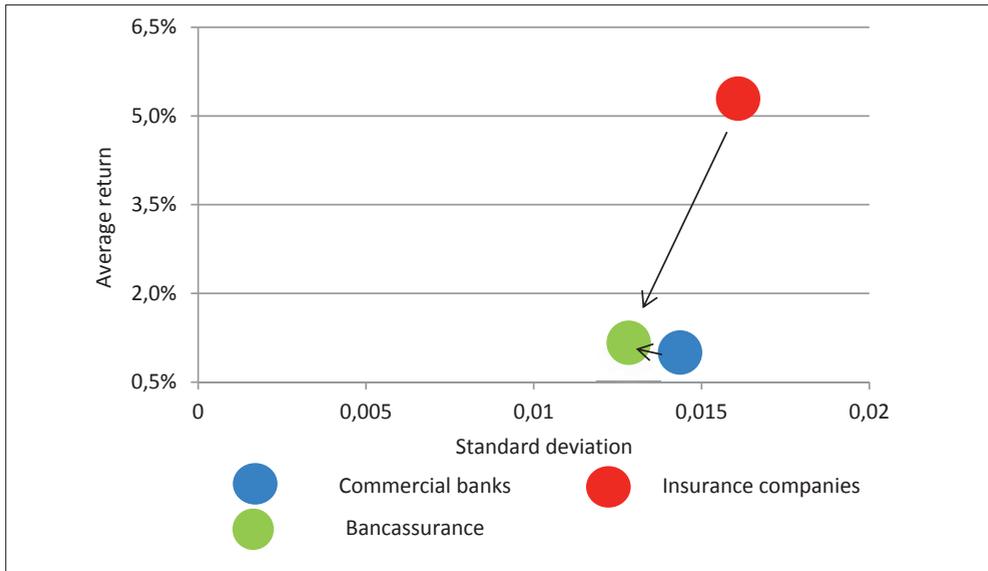


FIGURE No. 6. The average yield and standard deviation of the modeled industry.

Source: author's development.

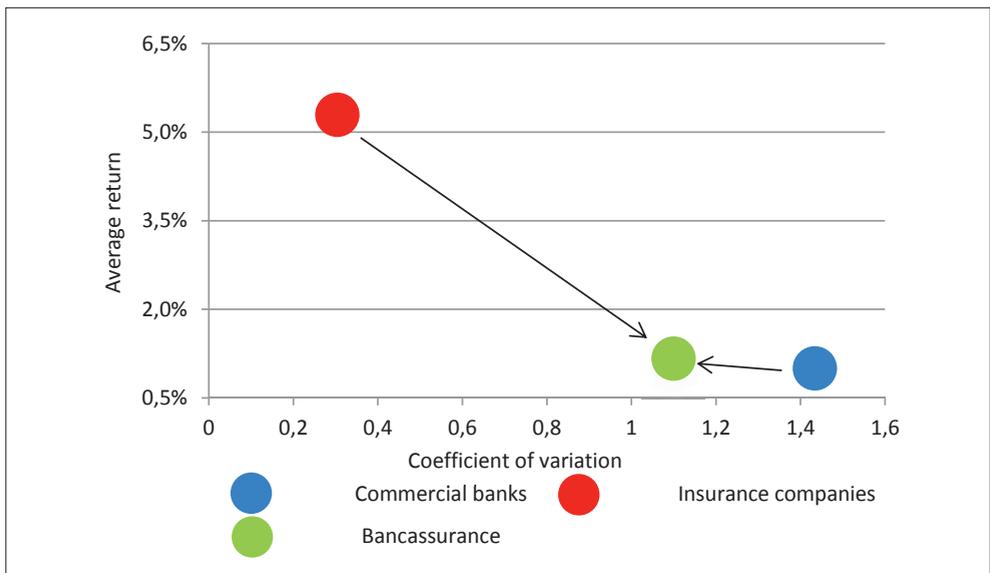


FIGURE No. 7. The average yield and coefficient of variation of the modeled industry.

Source: author's development.

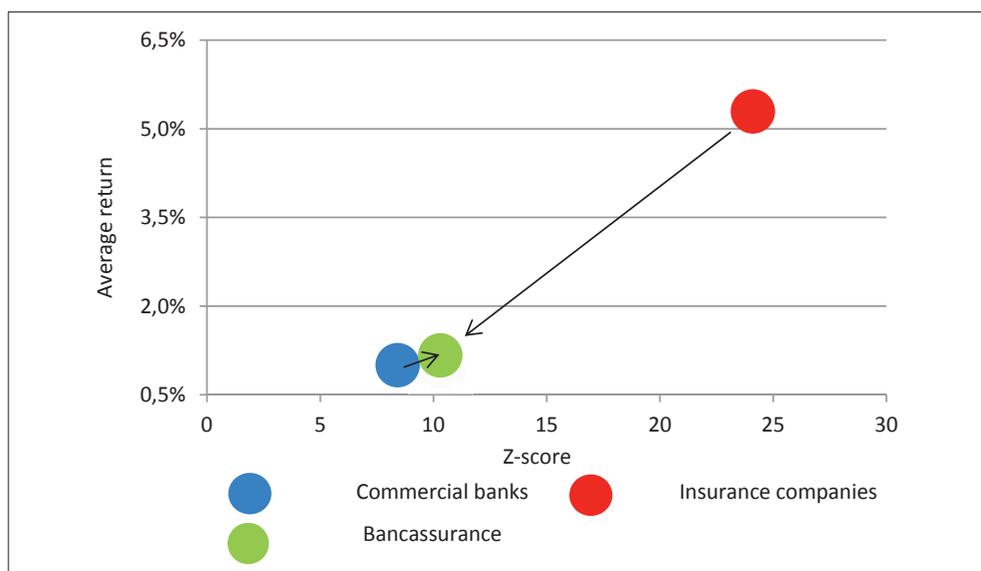


FIGURE No. 8. The average yield and Z-score of the simulated industry.

Source: author's development.

Figures Nos. 6, 7 and 8 show that the potential benefits of risk reduction are supported by all indicators. An interesting aspect of the above data is the fact that risk reduction is always accompanied by a victim of profitability. In general, the modeled merger of the two financial market sectors leads us to the conclusion that the merger between commercial banks and insurance companies gives an insignificant risk reduction for commercial banks (-11%, measured by the standard deviation of profitability), which is accompanied by a slight increase in return on assets (liabilities) (+ 17%). Despite this, a strategic partnership between commercial banks and insurance companies can be considered attractive in the direction of risk reduction. The main conclusion that can be drawn from this simulation is that the development of bank insurance can bear in itself a moderate effect of reducing risk and, at the same time, a moderate increase in the profitability of a commercial bank.

6. Conclusions

The experience of European countries shows that bancassurance is a good opportunity for cross-selling. With a proper construction of the bancassurance joint project on financial services, the combined company will be extremely convenient to meet the needs of consumers not only in banking but also in insurance and investment services. The customer is much more loyal, which will ultimately affect real income from such cooperation. Therefore, we can say that bancassurance is a convenient and promising model for meeting a wide range of customer needs.

The scientific novelty of the article lies in studying the theoretical and methodological foundations for the development of relations between insurance organizations and banks in the conditions of the market economy in Russia; also, it is found in the conceptual justification for increasing the effectiveness of competitiveness of these financial institutions through a review of the principles of distribution of insurance and banking products.

This article aimed at providing some empirical evidence on the risk/return effects of bank and insurance company diversification into related sectors. So, we describe the steps followed in methodology in order to undertake merger simulations and we outline our main findings.

Thus, bancassurance is a promising direction of cooperation of the insurance company and the bank. Given the fact that Russia has experienced positive economic development trends in the recent years, along with the liberalization of the financial market, all this allows us to talk about building a new, civilized and innovative segment of the market between the insurance and banking industries.

REFERENCES

- Baele, L., O. De Jonghe, R. Vander Vennet (2007). Does the Stock Market Value Bank Diversification? *J. Bank. Finance*, pp. 1999–2023.
- Boyd, J.H., Graham, S.L. (1988). The Profitability and Risk Effects of Allowing Bank Holding Companies to Merge With Other Financial Firms: A Simulation Study (No. Spring), Federal Reserve Bank of Minneapolis Quarterly Review.
- Boyd, J.H., Graham, S.L. (1986). Risk, Regulation, and Bank Holding Company Expansion into Nonbanking (No. Spring), Federal Reserve Bank of Minneapolis Quarterly Review.
- DeYoung, R., Karine, P.R. (2001). Product Mix and Earnings Volatility at Commercial Banks: Evidence from a Degree of Total Leverage Model. *J. Int. Intermediation*, pp. 54–84.
- Gaughan, P.A. (2011). *Mergers, acquisitions, and corporate restructurings*, 5th ed. ed. Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
- Grinev, V.M. (2007). Statistical study of diversification of banking activities in the Russian Federation. Samara State University of Economics, Samara.
- Ivanter, A. (2005). Who will assemble the puzzle? (based on the results of a survey of profiles of commercial banks conducted by the Expert magazine commissioned by the Institute for Public Planning). *Expert*, pp. 54–70.
- Karminsky, A.M. (2005). Ratings in Economics: Methodology and Practice. *M Finance and Statistics*, 240 p.
- Karminsky, AM, Peresetsky, AA, Van Sust, AGO. (2004). Models of ratings of banks. *Economic-Mathematical Methods*.
- Kunz, R. (1994). The strategy of diversification and the success of the enterprise. *Problems of Management Theory and Practice*, pp. 96–100.
- Laeven, L., Levine, R. (2007). Is There a Diversification Discount in Financial Conglomerates? *J. Financ. Econ*, pp. 331–67.

Lieven, B., Vennet, R.V., astrid van Landschoot (2004). Bank Risk Strategies and Cyclical Variation in Bank Stock Returns.

Liouville, J. (1993). Strategy of the enterprise and profitability. *Problems of Management Theory and Practice*, pp. 58–61.

Pasquier, M. (1994). Diversification and efficiency. *Problems of Management Theory and Practice*, pp. 82–82.

Schmid, M.M., Walter, I. (2009). Do Financial Conglomerates Create or Destroy Economic Value? *J. Financ. Intermediation*, pp. 193–216.

Stiroh, K.J. (2006). A Portfolio View of Banking with Interest and Noninterest Activities. *J. Money Credit Bank*, pp. 1351–61.

Stiroh, K.J. (2004). Diversification in Banking: Is Noninterest Income the Answer? *J. Money Credit Bank*, pp. 853–82.

Van Lelyveld, I., Knot, K. (2009). Do Financial Conglomerates Create or Destroy Value? Evidence for the EU. *J. Bank. Finance*, pp. 2312–21.

Varakina, N.N. (2003). Diversification of the activity of commercial banks in the current economic conditions (Moscow: RSL).