The Bank's Financially Stable Supply Chain as the Basis for Attraction of Investors

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***Abstract*- In this article, the authors is examined a key conceptual apparatus and basis indicators of evaluation of the financial stability of supply chain in banks, methods of evaluation of financial stability of banks, through which potential investors can improve the process of making a decision about the rationality of cooperation with a financial institution and investing funds in this financial institution. Revealed main advantages and disadvantages of the suggested in this article method of analysis of bank's financial stability of supply chain and formed a conclusion. In this article the authors formed the key purposes of carrying out the analysis of financial stability of commercial banks, introduced the formulas for calculating the crucial coefficients of appraisal of supply chain financial stability and indicated their interpretation, described their advantages and drawbacks, also described automated application programs for evaluating the financial status of commercial banks, allowing you to visually see and assess the current situation in which the financial institution is located, and also allows you to make a forecast of development trends, through which it is possible to identify and how reliable, competitive, and therefore the bank's financially stable supply chain, which is mainly attractive for potential investors.**

Key words: financial stability, investment, attractiveness; commercial banks, indicator, supply chain.

1. Introduction

In the modern world utterly each investor without an exception wants to depose it funds with the maximum rationality from economical point of view, here with the main purpose is considered to be the ability of gaining the biggest profit with the least risk of losing the deposited funds. Commercial banks have a full material liability for their deeds, thus it is necessary to carry out an analysis of the financial results every year to eliminate the doubts of potential investors about their financial reliability [1]. Anincorrectevaluationofthecommercialbankstatusinthe mostcasesleadstothecrisis situation and even to the collapse of the financial institution itself. As a supply chain financial stability it is usually considered a specific status of financial institution when the profit growth and fund is ensured with the high level of solvency. Main purposes of the financial stability analysis carry out:

- Revealing there all financial status of the company and the kind of changes of its condition in a spatiotemporal perspective;
- Determination of the key factors that caused the changes in the financial state of the analysis object;
- Creation of tendencies prediction of further development of the bank.

2. Methods

A concept «supply chain financial stability» has no universal definition, the opinions of authors are different when it comes to determine it. For example, M.G. Mironov emphasizes the factor that a financial stability of any commercial organization is connected to general fund structure as well as to the degree of dependence on creditors and investors. It is also can be said, that it is determined by such factors that define the fund status and structure, the degree of loan money attraction and the ability of financial organization to service the given loan. I.V.Koltsova, D.A. Ryabyh think that supply chain financial stability of an organization is determined by a company's ability to discharge their obligations in a long-term perspective and defined by a proportion of self and loan resources [2]. As "an investor" is considered an individual or legal entity that performs an investment activity. An investmentattractivenessis a summation of subjective and objective characteristics and factors, directed to an object of investment, able to provide a potential opportunity of profit on an acceptable for investors level of risk through the growth of object's value [3]. A credit and financial institution that allows individuals and legal entities to perform banking operations is defined as a commercial bank [4].

To support supply chain financial stability of commercial banks in complicated economic conditions there are several used methods of evaluation: Russian Bank technique, rating analysis technique, coefficients methods. Russian Bank technique implies a bank financial status analysis in general and doesn't intend to determine a unified integral index of stability, unlike rating evaluation method. The method allows to structurally analyzing the profit and material losses, fund sufficiency, liquidity, analyze credit and market risks. The advantages of this technique are: the results of the analysis can be used to form comparing indicators of the other commercial banks activity, allows to estimate how much the bank indicators are different of other commercial banks and determine the reasons of such differences. The advantages of this technique are: the results of the analysis can be used to form comparing indicators of the other commercial banks activity, allows estimating how much the bank indicators are different of other commercial banks and determine the reasons of such differences. The

International Journal of Supply Chain Management
IJSCM, ISSN: 2050-7399 (Online), 2051-3771 (Print)

drawbacks of this method: factual definition of indicators fulfillment and non-fulfillment, lack of bank specificity consideration, there is also no certain rating evaluation system and the abduction of analysis results to a final complex estimation of bank reliability, which would consider all factors affecting the financial activity of the bank. Rating analysis technique allows to estimate one bank's activity in comparison with another to make a rational decision: for depositors and creditors to consciously deposit their funds, for investors to rationally choose an object of their funds investment and predict further strategy of bank's development. As a basis of rating estimation is taken a generalized characteristic of a certain criterion, which allows to rank banks in a strict sequence of a given attribute deteriorating and divide them by certain groups. Criterial comparisons are based on quantity and quality indicators, which determine the scale of development and the degree of reliability of the bank. The method advantages: the technique allows to detect real results accomplishment of the direct competitors, for its calculation are used mathematic models of bank's activity comparative estimation. The disadvantages are: the problem of financial situation authenticity in bank's reports and applications, blank spots in accounting and taxing legislation, that prevent to objectively provide the results.

Coefficients methods serves as a controlling unit of liquidity, assets quality revealing and fund sufficiency, profitability, determination of business activity level, and also allows to comprehensively estimate the degree of commercial bank reliability [5]. Most often a financial state of commercial banks stability is defined by such indicators as: own fund sufficiency, liquidity, solvency and also rent ability. Fund sufficiency of the bank defines general estimation of its reliability and maintaining it on an adequate level is considered as the main way of ensuring the creditors in its supply chain financial stability and providing the trust of the population in commercial banks [14]. The size of bank's own fund defines its financial steadiness and stability, thus if the indicator value is low the perspective of active cooperation, attraction of reliable funds and additional resources as well as general perspective of clients' trust maintenance becomes unfavorable. A commercial bank must have its own fixed capital big enough to be able to meet all needs of its clients in loan funds and timely fulfill its obligations without putting itself in increased risk and not violating set norms [6].

From a reliability point of view the optimal bank is the bank that has volume of risk assets lower than own fixed capital; funds on clients' checking accounts are fully cover by liquidity assets; no more than one third of all trusted funds are subjected to risk; summary bank's obligations are ensured by liquidity assets; resources that directed to bank development are three times higher than founders' contributions [7]. Bank liquidity is considered as the main and most complex factor, which determines its supply chain financial stability [8]. Bank liquidity is the ability of the bank to fully and on time fulfill the assumed obligations [9].

An instantaneous liquidity norm (H2) limits the risk of losing the liquidity by the bank in one operational day and determines minimal proportion of highly liquid assets sum to the sum of bank's liabilities on bills on demand, while its minimal value is 15%. The given norm is calculated by the formula (1) [10]:

$$H2=\frac{\text{hightlyliquidassets}}{\text{liabilities on demand}}\times 100\% \geq 15\% \qquad (1)$$

Current liquidity norm (H3) defines minimum proportion of bank's liquid assets sum to the sum of bank's liabilities on bills on demand and for a term till 30 calendaring days. It shows how balanced at the assets and liabilities of the bank for the next month. Its minimal value = 50%and calculated by the formula (2):

$$H3=\frac{\text{liquid assets}}{\text{liabilities on demand}}\times 100 \geq 50\% \qquad (2)$$

A long-term liquidity norm (H4) regulates the risk of liquidity loss by the bank as a result of depositing funds in long-term assets and determines maximally allowable relation of credit requirements of the bank with the time left before the repayment more than 365 or 366 calendaring days to the own resources (fixed capital) of the bank and obligations (liabilities) with the time left until the repayment more than 365 or 366 calendaring days. Maximal value of this coefficient must be less than 120%, calculated by the formula (3):

$$H4=\frac{\text{credit claims with a remaining period of more than 365 (366) calendar days}}{\text{capital+liabilitiesofthebankforloansanddepositsformorethan 365 (366) calendardays}}\times 100\leq 120\% \qquad (3)$$

Thus too low liquidity is related to the risk of commercial organization bankruptcy, to prevent that, regulating organs enforce liquidity norms. . A group of subjects interested in an objective and reliable estimation of bank's activity from the liquidity point of view mainly includes commercial banks' investors, interested in retention and increase of own funds deposited in banks. Solvency presents a bank's ability to timely and fully fulfill its financial obligations, usually affected by political and economic factors. Annexes of bank's liabilities over assets attests to bank's insolvency. Profitability is an indicator that determines the degree of economic efficiency of use of different resources, considered to be the most important indicator for commercial bank's activity estimation. To determine basic indicator of bank's profitability is used fund rent ability index (ROE), calculated by the formula (4) [11]:

$$ROE=\frac{\text{profit}}{\text{equity}}*100\% \qquad (4)$$

Asset rent ability index (ROA) shows the bank's profit of every ruble, prepaid to form assets, directly depends on profit from deposits and share of bank's profit and is calculated by formula (5):

$$\text{ROA} = \frac{\text{profit}}{\text{assets}} * 100\% \qquad (5)$$

Index of general level of bank's rentability (R) estimates the overall commercial bank's profitability and the profit for every 1 ruble of the income [12]. This index is calculated by formula (6):

$$\text{R} = \frac{\text{profit}}{\text{bank income}} * 100\% \qquad (6)$$

Advantages of applying this approach are: key indexes allow to perform an analysis of the most part of bank's functionality sides. The drawbacks are: complexity, laboriousness and ambiguity of calculating the indexes due to lack of information in commercial bank's financial reports, as result a misinterpretation of the real financial state of the bank takes place.

3. Results and Discussion

The results of estimating the financial reports are needed to be used to decide on a choice of direction of fund investment, detection of problems of commercial activity management, to estimate the bank's top leadership activity and to forecast separate indicators and financial banking activity in general, which is the basis of future financial policy of the commercial bank. Mainly this analysis is directed to gain reliable information about the current state of the financial commercial organization, to monitor and diagnose the perspective state, the tendencies of its changing and prognosis in a short-term perspective usually limited to one year [13]. Nowadays none commercial organizationdoes without an automated informational support,that allows to perform an analysis of the whole financial activity of the organization, detect weak spots of the commercial bank on the basis of financial reports. Tosuchapplicationprograms are related: Audit Expert, ИНЭК – Аналитик, Альт–Финансы. In «Audit Expert» program basis there is an addiction to unified comparable kind of financial report for certain time periods in analytical tables. According to the data in tables financial coefficients are calculated, risks of liquidity losses and bankruptcy are estimated, the structure of balance and breakeven is analyzed, the creditworthiness is estimated, and analysis of own fund rentability is performed. Relying on the analytic tables it is possible to add techniques of financial analysis estimation and in a result of performed analysis derive charts and diagrams in main coefficients dynamics.

«ИНЭК – Аналитик» performs and analysis of the basic indicators of efficiency and supply chain financial stability as well as comparable monitoring. As a result, a report is made in table, graphic and text version, there is a possibility of export in MS Word, Excel. This program is open and available, which allows to develop own methods of financial analysis. The program allows to work in Russian and English language, though the translation is made only for 2 tables of dozens. «Альт – Финансы» serves for complex estimation analysis of a company's financial activity and determines key tendencies of development. According to analysis results an optimal way of further organization development is revealed, and a financial recovery program is elaborated. The program is released in Excel format, the distinctive trait is considered to be the ability of this program to translate all tables in English. All these programs can perform calculations of basic financial indicators, the advantages of such programs are adaptively and transparency, which also allows its users independently make necessary corrections to the program product.

4. Summary

In order to rationally invest funds, the investors need to refer to the results of the performed analysis of financial indicators of banking activity. For research fullness and calculation simplicity of these indicators it is suggested to use automated application programs, which allow the investors get the most precise date of potential object of investment with minimal risks of deposited funds loss. The described programs in this article allow to reveal bank's financial stability level thanks to visual reports as diagrams, charts and tables, and due to their transparency and adaptively allow to anticipate further direction of bank development tendencies.

5. Conclusions

In modern economic world all banks without exception try to preserve operations rentability and at the same time to be competitive in offered products and services. A complex impact on a different risks reduction (risk of insolvency, inflationary, percentage, deposit, credit risks) and increase of financial income of commercial banks allows to provide growth of financial organization value, as well as its investment attractiveness for depositors. It is necessary to take into account the fact, that economic efficiency of whole banking system functionality and the country itself depends on competent activity of separate commercial financial organizations. In our opinion, the use and perfection of automated informational application programs contribute to the growth of efficiency of analytical work of financial experts, which results the accuracy and completeness of the "picture" of the commercial bank's real status. Thus, commercial bank's financially stable supply chain is considered to the most important and critical factor of the evaluation of the investment attractiveness of the financial organization [15].

6. Acknowledgements

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

References

[1] Atkins, B. *“Bank Competition and Financial Stability: Evidence from the Financial Crisis”*, Journal of Financial and Quantitative Analysis, No. 1, 1-28, 2016.

[2] Bekreneva, V.A. *“Financial sustainability of the organization. Problems of analysis and diagnostics: Scientific publication”,* Publishing and Trading Corporation "Dashkov & Co", 60, 2016.

[3] Mokhov, V.G. *“Complex approach to assessment of investment attractiveness of power generating company”*, Bulletin of the South Ural State University, Series: Mathematical Modelling, Programming and Computer Software, 150-154, 2017.

[4] Ugur Zeynep Commercial Banks and Microfinance, CUREJ: College Undergraduate Research Electronic Journal, University of Pennsylvania, 1-43, 2006.

[5] Lukin, S.G. *“Financial stability of a commercial bank”*, Young Scientist, No. 34, 31 – 34, 2017.

[6] Kosterina, T.M. *“Credit policy of Russian banks from crisis to crisis and in the post-crisis perspective”*, Economic sciences, No. 65, 21-23, 2015.

[7] Klaas, J. *“Tools for assessing and forecasting financial stability of the commercial bank under conditions of instability”*, Investment Management and Financial Innovations, No. 4, 157-163, 2014.

[8] Salova, M. *“The role of liquidity risk in the Russian economy and liquidity risk management”,* Young science, No. 1, 57-60, 2014.

[9] Troshin, V.A. “*Liquidity of a commercial bank*”, Young scientist, No. 7, 416-419, 2014.

[10] Labuzova, V.A. *“Methods for assessing the liquidity of a commercial bank”*, Young Scientist, No. 21, 363-365, 2014.

[10] Kudaibergenova, S.K. *“Analysis of profitability management of a commercial bank”,* Actual issues of economics and management: materials III Intern. Scientific, 39-43, 2015.

[11] ViktóriaBobáková. *Raising the profitability of commercial banks*, Biatec, No. 4, 21-25, 2003.

[12] Anokhin, V.A. *“Analysis of the competitive development of commercial banks in Russia”*, Young Scientist, No. 27, 334-338, 2016.

[13] Smulov, A.M. *“On perspective approaches of banks to work with problem and overdue loan debts*”, Finance and credit, No. 33, 51, 2010.

[14] Gornall, W., and Strebulaev, I.A. *“Financing as a supply chain: The capital structure of banks and borrowers”,* Journal of Financial Economics, 2018.

[15] Shin, H.S. *"Securitisation and financial stability,"* The Economic Journal, Vol. 119, No. 536, 309-332, 2009.