

Finance, banking and insurance

UDC 336.71

**Ilchuk Pavlo**

*Doctor of Economics, Professor,  
Head of the Department of Management Technologies  
Lviv Polytechnic National University*

**Kots Olha**

*Candidate of Economic Sciences (PhD), Associate Professor,  
Associate Professor of the Department of Finance  
Lviv Polytechnic National University*

**Motoria Kateryna**

*Master of the Department of Finance  
Lviv Polytechnic National University*

## **ESSENCE OF BANK FINANCIAL STABILITY AND METHODS OF ITS EVALUATION: THEORETICAL ASPECTS**

***Summary.** Since the efficient operation of banks is the basis for the effective functioning of the economy, evaluating the financial stability of banks is necessary in order to prevent problems in the banking system, without which today it is impossible to ensure neither business nor the functioning of the state. The article deals with the study of theoretical approaches to the interpretation of the essence of the economic category "financial stability of the bank". On the basis of the generalization of the economists' opinions, the essence, content and result as the integral parts of the interpretation of the financial stability of the bank are distinguished and the author's definition of the category is proposed.*

*Consequently, the main indicators that need to be calculated to assess the financial stability of the bank are indicators of liquidity, solvency, profitability,*

*and balance of financial flows, structure of financial resources and the level of risks.*

*Particular attention is paid to analyzing existing methods for assessing financial stability of the bank. In particular, the essence of the main ones was identified, the result of the evaluation and the shortcomings of the methods were analyzed. The most frequently used method of evaluating the financial stability of the bank is the method of financial ratios. According to the results of the ball assessment, the highest score - 4 - has received a method of integrated assessment of banks activity taking into account the risks of depositors. The disadvantage of this method is precisely the failure to take into account the risks of the bank (not the risks of depositors). It is advisable to evaluate financial sustainability not only on the basis of financial reporting data, but also using market data to take into account risks' factors and assess their impact on financial stability of the bank. This will allow a comprehensive approach to managing the financial stability of the bank.*

**Key words:** *bank, banking system, financial stability, essence, evaluation*

**Statement of the problem.** Financial stability management is a necessary element of managing each bank. The financial stability of the banking system as a whole depends on the level and type of financial stability of each individual bank. Therefore, the issues of financial stability of the bank deal with both at the micro level and at the macro level.

Important to ensure the stable banks activity is their financial stability and ability to fulfil obligations timely. Such reasons as low bank solvency, dummy securities transactions, rising debt arrears and many others cause mistrust to a particular bank and the banking system as a whole. Since the effective banks activity is the basis for the efficient economy functioning, the assessment of financial stability of banks is necessary to prevent problems in the banking system, without which today cannot provide any business or operation of the

national economy. That is why it is relevant to research the theoretical and applied principles of interpretation of the essence and methods of assessing the financial stability of banks.

**Analysis of recent researches and publications.** The financial stability of banks is widely explored by economists. Today, the research of the essence and methods of assessing the financial stability of banks are performed by Zh. M. Dovgan [2], O. B. Zhykhor, O. V. Bil'ska, D. O. Medvedyev, A. A. Popov [3], M. I. Zveryakov, V. V. Kovalenko, A. S. Sergyeyeva [4], A. A. Zolkover and A. O. Gumenyuk [5], A. Ye. Kyrychenko [6], V. V. Mayba [7], A. V. Maksymova [8], M. H. Marych and A. V. Marych [9], T. Rayevska [11], Yu. S. Rebryk [12], Yu. O. Rusina and A. G. Legeyda [13], L. V. Yurchyshena and S. V. Podolyan [15] and others.

Each author reveals his own view on the interpretation of the financial stability of the bank and on the method of its evaluation, so it is necessary to systematize the existing theoretical approaches, identify their common and distinctive features, form own position on the problem of research.

**Formulation purposes of article (problem).** The main tasks of the article are the theoretical research of the essence of the economic category "financial stability of the bank"; critical analysis of the essence of the bank's financial stability and formation own approach to its interpretation, analysis of the available methods of assessing the financial soundness of banks and highlighting their shortcomings.

**The main material.** According to the NBU formulation, "the financial stability of the bank is a state of the bank, characterized by a balance of financial flows, sufficient funds to maintain its solvency and liquidity, as well as profitable activities" [10]. If we analyze this definition by three criteria - essence, content and result, we get: essence - the state of the bank; content - balance of financial flows, adequacy of funds to maintain solvency and liquidity, profitability of activity are determined; the result is undefined. That is, for the

complexity of interpretation of financial stability of banks, it is necessary to clarify the definition of this category, which is given in the NBU materials. Among economists, there are other, other than the NBU's, interpretations of the economic category "financial stability of the bank". The main ones are systematized in Table 1.

*Table 1*

**Interpretation of the economic category "financial stability of the bank" by economists**

| Authors                                   | Essence   | Content   | Result   |
|---|---|---|--|
| Dovgal Y. S. and Chamara R. O. [1]        | state of the banking institution                              | determines the adequacy of regulatory capital to cover all possible risks related with banking activities | ability to use assets as efficiently as possible   |
| Dovgan Zh. M. [2]                         | comprehensive indicator                                       | -   | displays the degree of the bank's reliability for external influences  |
| Zolkover A. A. and Gumenyuk A. O. [5]     | the state of financial resources of the financial institution | determines the dynamics, structure, distribution and use of financial resources of the bank               | development of the bank's activity, growth of profit and capital while maintaining solvency and credit standing under conditions of acceptable risk level is ensured     |
| Marych M. H. and Marych A. V [9]          | qualitative characteristics of banks' financial state         | determines the sufficiency, equilibrium and optimal balance of assets and financial resources             | ability to cover unforeseen costs and maintain a state of efficient functioning  |
| Yurchyshena L. V. and Podolyan S. V. [15] | qualitative dynamic integral characteristic of bank capacity  | -   | efficient performance of the bank's functions and ensuring its purposeful development, minimizing risks under the influence of external and internal environment factors |

*Source:* systematized by authors according to [1; 2; 5; 9; 15]

In contrast to the definition of the NBU, in the scientific literature, bank's financial stability is mostly viewed from the standpoint of result rather than essence, which makes it possible to use different methods of assessing bank's financial stability. In essence, like the NBU, most of the analyzed literature

sources state that this is the state of the bank, the state of its resources, a certain characteristic of the state of the bank. We consider that, in essence, the financial stability of the bank is most expedient to be interpreted as "a characteristic of the bank's state, estimated and reflected by a comprehensive indicator". After all, the category "state" does not give an explanation as to the identification of the category of financial stability of the bank, so it is advisable to supplement it with a specific comprehensive evaluation indicator.

If we interpretive the content of the category "financial stability of the bank", we consider it reasonable to take the definition of the NBU and take into account the balance of financial flows, sufficient funds to maintain solvency and liquidity, profitability of operations, as well as to add characteristics of financial resources of banks and risks inherent in banking. Therefore, we consider that the content of a bank's financial stability is most appropriate to be interpreted as "determining liquidity, solvency, profitability, balance of financial flows, structure of financial resources and level of risks". That is, assessing the financial stability of the bank, it is absolutely necessary to evaluate all areas and characteristics of the bank's activities, on the basis of which to create a comprehensive indicator that would allow solely on the basis of comparison with the normative value to draw conclusions about the current financial stability of the bank.

From the standpoint of the result, which should provide for the interpretation of each economic category, then in the absence of such a component in the definition of the NBU, in the writings of economists there are different interpretations: the ability to use assets effectively, cover unforeseen costs, effectively function, effectively perform functions, minimize risks, receive profits, etc. If we summarize the findings in the scientific literature, we suggest that the result of the financial stability of the bank is most appropriate to interpret as "effective conduct of banking activities, ensuring a competitive market position, high positive results of work in all areas of activity and

acceptable level of risk". That is, the assessment of the financial stability of the bank should identify the level and sufficiency of the banking efficiency.

Summarizing the above, we recommend to clarify the economic category "financial stability of the bank" and to consider it as follows: "financial stability of the bank is a characteristic of the bank's state, assessed and reflected by a complex indicator, calculated on the basis of assessing liquidity, solvency, profitability, financial structure, balance resources and the risks level, and provides for identification of the level and sufficiency of the banking activity's efficiency, which ensures a competitive market position, positive results in all areas of activity for the acceptable risks level".

Therefore, the main indicators that need to be calculated to evaluate the financial stability of the bank are indicators of liquidity, solvency, profitability, balance of financial flows, structure of financial resources and risks level.

On the basis of the value of the bank's financial stability indicator we can make conclusions about bank's ability to conduct banking activities in unstable economic, political, financial and social conditions in general. The sufficient level of financial stability of the bank means that the bank is reliable, competitive and risk-tolerant in time of the above factors influence.

Evaluation of the financial stability of the bank is an essential step in evaluating the bank's activities in general. There are different approaches in the scientific literature to analyzing a bank's activity, evaluating its performance in general, and financial stability in particular. We perform a more detailed analysis of the available methods of assessing the financial stability of the bank – detail each of them by the nature and the result of the evaluation, as well as highlight the main shortcomings of the method of assessing the financial stability of the bank. We also evaluate each of the methods on a 5-point scale, where: 5 is the highest score, characterizes the most accurate and complete assessed financial stability of the bank, and 1 is the lowest score, characterizes significant deviations from the expected result – identification of the type (or

level) of the financial stability of the bank. The results of the analysis the methods for assessing the financial stability of the bank and their evaluation are given in Table 2.

*Table 2*

**The results of the analysis the methods for assessing the financial stability of the bank and their evaluation**

| Authors             | Method name   | The essence of the method   | The result of the evaluation  | The disadvantages of the method   | Score |
|---------------------|---|---|---|---|-------|
| Rebryk Yu. S. [12]  | Express diagnostic method                                 | Calculation of financial indicators and integral indicator of financial stability of the bank   | Determining the type of financial stability of the bank                                 | Taking into account first of all qualitative indicators of instability, and then quantitative indicators, which forms the ambiguity of the integral indicator   | 2     |
| Rusnak Yu. I. [14]  | Coefficients method                                       | Calculation of key indicators – the total assets and liabilities, regulatory capital, solvency and liquidity on the basis of financial reports  | Identifying the causes of bank failure on the general principles of financial stability | Analysing exclusively internal factors influencing the financial stability of the bank, insufficient indicators to assess the financial stability of the bank   | 1     |
| Maksymova A. V. [8] | Method of integral assessment of bank financial stability | Calculation of the integral indicator as the average of the bank's financial state coefficients, including the assessment of external and internal influence factors on the financial stability of the bank | The average integral indicator characterizing the financial stability of the bank       | The calculation of the average indicator (due to the arithmetic mean of the total indicators of assessing the financial state of the bank) does not give complete information about the financial stability of the bank | 3     |
| Mayba V. V. [7]     | Rating method   | Assessment of financial stability of the bank on the basis of general indicators of the bank's financial  | Determining the banks' rating   | Characteristics of the financial stability of the bank only according to internal figures and internal factors  | 3     |

| Authors          | Method name  | The essence of the method   | The result of the evaluation  | The disadvantages of the method  | Score |
|------------------|--|---|---|--|-------|
|                  |  | state   |   | influence;<br>calculation of key indicators solely for the purpose of identifying the risk of bankruptcy and liquidation |       |
| Rayevska T. [11] | Method of comprehensive assessment of banks' activities with regard to depositors' risks | Comprehensive evaluation of bank's activity based on financial reporting indicators. Quantitative and qualitative indicators are taken into account | Determining the banks' rating, which is an assessment of a bank's financial stability | Characteristic of financial stability of the bank only according to internal indicators and internal influence factors   | 4     |

*Source:* systematized by authors according to [7-8; 11-12; 14]

As we can see, the most commonly used method of assessing a bank's financial stability is the method of financial ratios. According to the results of the scoring, the highest score – 4 – received a method of comprehensive assessment of banks' activities with regard to depositors' risks. The disadvantage of this method is the lack of consideration of the bank's risks (not depositors'). This method for assessing the financial stability of the bank is a rating: the valuation is made on the basis of analysis of standards of assets, liabilities, liabilities, expenses and income, capital, management, efficiency, liquidity, growth rate, that is based on all bank's financial reports. Other of the analyzed methods for assessing the financial stability of the bank are less detailed and imperfect in terms of the calculated indicators and the approach for calculating the integral indicator of the financial stability of the bank, which is not provided by all of the analyzed methods.

We suggest that in order to improve the assessment of the financial stability of the bank, it is necessary to use both financial reports that allow us to analyze the results of the bank's activity and internal preconditions for their

occurrence, as well as market data that allow analyzing the bank's activity influence factors.

**Conclusions.** Therefore, having examined the scientific literature, different approaches to the interpretation of the economic category of "financial stability of the bank" have been identified. Based on their critical analysis and generalization, the authors' approach to interpreting the essence of this category was proposed, namely: «financial stability of the bank is a characteristic of the bank's state, assessed and reflected by a complex indicator, calculated on the basis of assessing liquidity, solvency, profitability, financial structure, balance resources and the risks level, and provides for identification of the level and sufficiency of the banking activity's efficiency, which ensures a competitive market position, positive results in all areas of activity for the acceptable risks level».

On the basis of the results of analysis methods for assessing the financial stability of the bank we can say that most of them based on the method of calculation of financial ratios. We suggest that in order to improve the assessment of the financial stability of the bank, it is necessary to use both financial reports that allow us to analyze the results of the bank's activity and internal preconditions for their occurrence, as well as market data that allow analyzing the bank's activity influence factors.

**Insights from this study and perspectives for further research in this direction,** it is advisable to focus on assessing the financial stability of the bank and developing methods for taking risks into account in assessing financial stability of the bank.

## References

1. Dovhal Yu. S., Chamara R. O. (2014) Sutnist finansovoi stiikosti komertsiinoho banku ta efektyvni shliakhy yii zabezpechennia [Essence of financial stability of a commercial bank and effective ways of its ensuring].

- Bulletin of the University of Banking of the National Bank of Ukraine, no. 3, pp. 104–107.
2. Dovhan Zh. M. (2011) Problemy finansovoi stiiikosti bankivskoi systemy Ukrainy v suchasnykh umovakh [Problems of financial stability of the banking system of Ukraine in modern conditions]. Scientific notes of the National University of Ostroh Academy. Ser : Economics, vol. 16, pp. 325–332.
  3. Zhykhor O. B., Bilska O. V., Medvediev D. O., Popov A. O. (2018) Metodychni pidkhody do otsiniuvannia finansovoi stiiikosti bankivskoi systemy [Methodological approaches to assessing the financial stability of the banking system]. Formation of market relations in Ukraine, no. 2, pp. 32–36.
  4. Zvieriakov M. I., Kovalenko V. V., Serheieva O. S. (2014) Upravlinnia finansovoiu stiiikistiu bankiv: pidruchnyk [Managing financial stability of banks: book]. Odessa: Publishing House "Atlant". (in Ukrainian).
  5. Zolkover A. O., Humeniuk A. O. (2015) Metody zabezpechennia finansovoi stiiikosti komertsiiinykh bankiv [Methods of providing financial stability of commercial banks]. International scientific journal, no. 2, pp. 32–35.
  6. Kyrychenko Ye. O. (2013) Analiz struktury ta dynamiky aktyviv banku [Analysis of the structure and dynamics of the bank's assets]. Development management, no. 12, pp. 71–73.
  7. Maiba V. V. (2010) Reitynhove otsiniuvannia finansovoi stiiikosti komertsiiinykh bankiv [Rating assessment of financial stability of commercial banks]. Effective economy (electronic journal), no. 5. Available at: [http://nbuv.gov.ua/UJRN/efek\\_2010\\_5\\_24](http://nbuv.gov.ua/UJRN/efek_2010_5_24) (accessed 01 February 2019).
  8. Maksymova A. V. (2014) Otsinka finansovoi stiiikosti banku: metodychni pidkhody do analizu ta problemy yikh zastosuvannia [The estimation of

- financial stability of a bank: methodical approaches to analysis and problems of their application]. Scientific Bulletin of Kherson State University, no. 8, part 3, pp. 205–208.
9. Marych M. H., Marych A. V. (2017) Otsinka finansovoi stiikosti komertsiiinykh bankiv Ukrainy na suchasnomu etapi rozvytku [Estimation of financial stability of commercial banks of Ukraine at the present stage of development]. Global and national problems of the economy, vol. 17. – Available at: <http://global-national.in.ua/archive/17-2017/142.pdf> (accessed 01 February 2019).
  10. Ofitsiinyi sait Natsionalnoho banku Ukrainy [Official site of the National Bank of Ukraine]. Available at: <https://bank.gov.ua> (accessed 12 June 2019)
  11. Raievska T. (2005) Praktychni pidkhody do otsinky ryzykiv u diialnosti bankiv [Practical approaches to risk assessment in the activity of banks]. Bulletin of the National Bank of Ukraine, no. 8, pp. 9–14.
  12. Rebryk Yu. S. (2016) Ekspres-diahnostuvannia finansovoi stiikosti bankiv na osnovi zastosuvannia metodiv neparmetrychnoi statystyky [Express diagnosis of financial stability of banks on the basis of nonparametric statistics]. Effective economy, no. 2. Available at: <http://www.economy.nayka.com.ua/?op=1&z=4781> (accessed 05 March 2019)
  13. Rusina Yu. O., Leheida A. H. (2015) Zabezpechennia finansovoi stiikosti komertsiiinoho banku [Financial stability of commercial bank]. International scientific journal, no.2, pp. 87–90.
  14. Rusnak Yu. I. Pravove rehuliuвання likvidnosti ta platospromozhnosti bankiv [Legal regulation of liquidity and solvency of banks]. Scientific Bulletin of the Uzhgorod National University. Series: Law, vol. 36(2), pp. 58–61.

15. Yurchyshena L. V., Podolian S. V. (2013) Otsinka finansovoi stiiikosti komertsiinoho banku [Estimation of financial stability of a commercial bank]. *Regional Business Economics and Management*, no. 3, pp. 72–79.