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Evaluation of the performance of financial institution

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Introduction

The question of the effectiveness of banking activities is quite complex and multi-faceted, since it concerns all areas of banking business. It is relevant not only at the level of a particular bank. The low level of efficiency of banking activity shows ineffective asset and liability management, limited development opportunities, low competitive advantages, increased sensitivity to market risks. In the case of negative trends, all this can lead to serious problems in the activities of banks, and untimely measures taken - to bankruptcy. Consequently, the activity of banks should always be characterized by a sufficient level of efficiency, which is increasingly relevant in the conditions of high competition and in the post-crisis period.

In the nowadays world it is important to solve tasks and problems swiftly and efficient, so the world will operate with a performance assessment. Many educators use five criteria from Wiggins and McTighe in Understanding by Design (UbD) when creating and evaluating performance assessments: Real-World Goal, Role, Audience, Standards for Success, and Product/Performance. A productive alternative to coverage and activity-oriented plans, over the last decade UbD has become a widely used strategy of backward design of units and projects.

Similarly, Marc Chun, now at the Hewlett Foundation, wrote a paper on performance assessment in 2010 where he described the features of a quality performance task:

Analysis of recent research and publications. The following foreign and domestic scholars have made a significant contribution to the study of the essence of the category «efficiency»: P. Rose, J. Sinki, M. Alle, I. Ansoff, L. Russell Akoff, V. Usoskin, O. I. Lavrushin, A. M. Gerasimovich, O. V. Dzyubluk, O. Pristostka, I. Panasii-Vargulenko and others.

However, with all the significance of their scientific works, the question of the essence of the effectiveness of banking activities for today remains insufficiently developed both in the theoretical and methodological and practical

aspects. Therefore, further research requires a complex set of issues related to the definition of the essence of the concept, the identification of the main factors of its formation, the development of unified indicators for assessing the effectiveness of banking activities.

The purpose of the thesis is to summarize the methodological and theoretical foundations and development of practical recommendations for assessing and managing the efficiency of a commercial bank in the current market conditions.

In accordance with the set goal, was tasked to:

- define the concept of the effect and efficiency of the bank;
- research the main methodological approaches to assessing the efficiency of the bank;
- define factors affecting bank's efficiency;
- explore organizational and informational support for assessing the efficiency of the bank;
- analyze key performance indicators of the bank;
- define integrated assessment of the bank's performance;
- investigate foreign experience in evaluating and managing the performance of the bank;
- find out the effect of banking effectiveness at the bank place in the banking system;
- research directions and tools for increasing the efficiency of the bank.

The subject of the study is the process of assessing and managing the efficiency of the bank.

The object of the thesis is the practice of «Raiffeisen Bank Aval» JSC.

Methodology, which was widely used in the process of this work execution consist of such research techniques as: observation; assessment; modeling and forecasting. Combination of mentioned methods allowed us to comprehensively consider all topics' features and create sustainable model of the investigated phenomenon.

The scientific novelty. For the first time, a study was conducted on the compatibility and performance of world-wide methods of assessment of the efficiency of banking activities using the example of a domestic bank. Relevant conclusions were made and recommendations were given on how to improve the implementation of these methods.

The practical value is the creation of main guidelines for Ukraine to be able to determine the implementation strategy for foreign methods of assessment of efficiency of banking on the national market and activities of domestic banks and to develop a methodological framework for evaluating all banks on a single basis.

Publications. Some results of the research were stated in the scientific article “Key performance indicators of the banking”//Стратегії розвитку фінансового ринку України: зб. наук. ст. студ. денної форми навчання / відп. ред. Н.П. Шульга. – К.: Київ. нац. торг. - екон. ун-т, 2018. – 366с. (С.239-247). During the process of the research implementation, main theses were also presented during participation in all-Ukrainian student scientific and practical conference on the topic “Strategies for the development of the financial market of Ukraine” and printed “Approaches to the concept of banking efficiency”// Стратегії розвитку фінансового ринку України: Всеукр. студ. наук.-практ. конф. (Київ, 22-23 листопада 2017 р.): тези доп. / відп. ред. Н.П. Шульга – К.: Київ. нац. торг.-екон. ун-т, 2017. – 694 с. (С.393-396).

Research structure. This paper consists of list of abbreviations, introduction, three parts, conclusions and proposals, references and attachments. Structurally, thesis paper consists of an introduction, three sections, conclusions and proposals, a list of sources and applications. Total number of pages is 81 with overall of 3 grafs,13 tables, 86 sources.

PART 1. THEORETICAL BASIS FOR THE BANK'S PERFORMANCE ASSESSMENT

1.1. The concept of the effect and efficiency of the bank

The pluralism of scientific views and the lack of clarity in the definition of the category of effectiveness and today often leads to its identification with other economic concepts. For example, the term «efficiency» is often used as a synonym for productivity, profitability, performance, etc.

The lack of a single definition of efficiency is associated with a rather heterogeneous internal structure, since the integrity, multidimensionality, dynamism and interconnectedness of various aspects of economic activity are expressed in this category [51, p. 137].

For the correct understanding of the essence of the concept of «efficiency of banking», it is first of all advisable to determine the meaning of the term «efficiency», which, according to most scholars, is one of the most difficult categories of modern economic science.

As for the term «efficiency», this category comes from the Latin word *effectus*, which in translation means «the result, the result of something, any action, cause», but the effective means the effect, but not any, but scheduled ahead of time. Hence, the efficiency is interpreted as the result of a targeted action [59].

In the retrospective perspective, it is assumed that the term «efficiency» was introduced into scientific use by V. Petti and F. Quesnay, who used it not as an independent economic concept, but used in terms of effectiveness to assess government and private measures in favor of improving economic life [10, p. 194-195].

Subsequently, this concept occurs in the writings of D. Ricardo, which term «efficiency» is no longer used in terms of effectiveness, but as the ratio of the result to a certain type of expenditure, that is, the category of «efficiency» acquires already a specific value, which was important from the point of view of the

economy evaluation of certain actions. It also attempted to assess the efficiency of capital. In particular, D. Ricardo proved that the less durable capital, the more it is necessary to spend labor to maintain its original efficiency [4].

Since the end of the nineteenth century, the term «efficiency» begins to lose its purely economic value and is used to assess a variety of actions. This was facilitated by the following circumstances:

- the economy has ceased to be just an area of economists, for example, the development of machine production contributed to changes in the tasks, functions and areas of responsibility of engineers. For example, one of the first representatives of management theorists G. Emerson considered the effectiveness of the main management tasks, and used this term in different meanings. However, he made an extremely important contribution to the development of this concept - he saw in efficiency what was not revealed by economists - its connection with functionality;

- the development of praxeology (the effectiveness of T. Kotarbinsky - the creator of praxeology) differs in the ambiguity of use. This is due to the fact that efficiency, correctness and success were not separated from each other. Efficiency takes on the features of utility, accuracy, skill, purity. At the same time useful from the point of view of the given goal there is such an action through which the achievement of the goal becomes possible or more achievable; accuracy is defined as the degree of discrepancy (discrepancy of the sample product); skill means multifunctionality of the product; purity is defined as the degree of inconsistency with the main and secondary goals, that is, as a kind of degree of «impurities».

The further development of the concept of «efficiency» within the framework of praxeology was obtained in the works of J. Zelenevsky, who considers three equivalent criteria: profitability (ratio of result to costs), utility (the ratio of the result to needs) and efficiency (the ratio of the result to the goals). Thus, he defines efficiency not simply as a relation between the result and the goal, but as a relation mediated by values, and does not reduce values only to material [4].

In the process of production, in addition to economic results, considerable attention is being paid to social factors, therefore, the effectiveness becomes even more socially colored.

Thus, the universalization of the concept of «efficiency» and its application in all spheres of life took place. But in spite of different perspectives, the main aspects of defining the content and essence of efficiency can be grouped into the following approaches:

- theoretical-essential - considers effectiveness from the standpoint of the effectiveness of activities (the ratio of performance to costs or resources used). However, one must understand that efficiency and effectiveness are interrelated phenomena that indicate the quality of a particular activity or the operation of a particular object, but they can not be identified as they provide different levels of achievement. In this case, effectiveness is a more general notion that can be used to denote the effects of both effective and ineffective activities [10, p. 195]. This approach is objectively inappropriate in the study of social, organizational and other systems whose performance can not always be quantified and objectively reflected;

- methodological - treats efficiency as the degree of compliance with the standard. This approach involves comparing its own performance with benchmarks in a similar industry. At the same time, the comparison of performance indicators makes it possible to identify the vulnerable and rational aspects of the institution's activity compared with its competitors and world leaders [3]. The main disadvantage of this approach is the unjustified emphasis on quantitative performance characteristics, which leads to the predominance of a purely formal focus on the evaluation of the performance without taking into account its functional component [10, p. 196];

- target - considers efficiency as a degree of achievement of the set goal. However, this approach is not devoid of certain disadvantages, which is due to the following reasons:

- the goals of the institutions are not always formulated explicitly, for

example, in the form of strategic goals, which makes it impossible to assess the degree of their achievement;

- usually formulated goals characterize the desired state of the institution from many parties (market, financial, organizational and other goals), which complicates the assessment of their degree of achievement, with the expected result is not only related to the initial goals, but also to those that suddenly arose, intermediate goals;

- formation of the goals of the institution has a subjective character, since it depends on the interests of interest groups, which, as a rule, leads to their diversification and environmental conditions. As a result, the quality of the expected result is influenced not only by the quality and «correctness» of the goal setting, but also by objective factors [3];

- systemic - a combination of different positions.

Thus, the term «efficiency» is a multi-valued concept and reflects the relation of different aspects of activity: the result and costs, the result and goals, the result and needs, result and values, etc. [49].

It should also be noted that in western scientific literature, efficiency is determined by two concepts: effectiveness, efficiency [65, p. 117; 71], although managers rarely understand the difference between these terms. In domestic practice, efficiency is considered only efficiency, while effectiveness does not even have an analogue of translation into the Ukrainian language.

In all scientific literature, attention is focused on the evaluation of efficiency. However, it is necessary to understand that this efficiency is not a measure of the bank's success in the market. This is a measure of operational advantage or productivity. Efficiency corresponds to the expression «to do things right» [71] and this category focuses on a direct quantitative result, can be calculated through a variety of coefficients, and also reflects a short-term perspective.

In turn, effectiveness is a broader concept in which the concept of efficiency is organically included. Effectiveness corresponds to the expression «to do the right

thing». This concept covers not only the quantitative aspect of activity, but also qualitative, focuses not only on the immediate end result, but also covers the process, starting with the goals of management and operation. In fact, efficiency expresses, so to speak, the entrepreneurial talent that can not be measured, but you can over time evaluate it subjectively.

Authors [49; 50] indicate that efficiency also often translates into the term «performance», which means the general state of the organization, including financial and non-financial parameters, achieved level of development and prospects [71].

Performance is calculated using a variety of coefficients, and also reflects a short-term perspective. According to this, the term «performance» is used when assessing the ability to achieve the goals of the company, while not taking into account the way of implementing the company's plans and optimal use of resources. Consequently, "effectiveness" is more strategic for the company and is one of the indicators that characterizes the level of influence of external factors on doing business.

So, «performance» is the ability to achieve the desired result. Often the measure of performance is the probability of achieving the goal. Somewhat or someone will be effective if they have a high probability of success in a particular activity and it may be based on past performance data.

1.2. The main methodological approaches to assessing the efficiency of the bank

Ensuring effective functioning of the bank, in turn, requires rational organization of analytical work, the results of which serve as the basis for making economically sound management decisions. With the help of analysis it becomes possible to:

- identify trends and regularities of the bank activity, assess the nature of the influence of external and internal factors on its functioning;

- scientifically ground plan of further work and control its implementation;
- determine the potential of the bank's development and reserves to increase its efficiency.

After examining the foreign and domestic experience in evaluating the efficiency of the bank, we propose to consider the evaluation technology in the form of stages with the corresponding purpose and research tools:

- 1 stage – to resolve organizational and procedural aspects of evaluation.
- 2 stage – analytical work to determine the level of efficiency.
- 3 stage – to formulate conclusions and suggestions.

Definition of the entity is decisive in the process of assessing the effectiveness - on the one hand, a separate entity has its own interest in the activities of the bank, which determines the purpose of further evaluation and performance criteria, on the other hand, determines the level of evaluation, namely international, national, level of an individual bank or its structural unit.

From the standpoint of evaluating the activities of the bank it is advisable to combine the entities into four conditional groups:

- a regulator, whose feature is the predominance of state interests over private, which distinguishes the purpose and effects of valuation from other entities;
- researchers, the main subject of research is the methodological aspects of evaluation;
- management of the bank (including owners), the assessment of which is aimed at studying the economic conditions of the bank and identifying the potential for increasing the efficiency of its activities;
- others, namely clients, rating agencies, tax authorities, local and central authorities, etc.

The purpose of assessing the effectiveness of the banking system or a group of banks by the regulator is to obtain information support for the public administration system, including for making managerial decisions in the monetary sphere. The economic system of Ukraine is in the process of structural

transformation, and, accordingly, the mechanism of state regulation is also at the stage of formation. The study of the factors determining the level of efficiency of banks from the point of view of financial intermediation remains relevant, namely, the impact of monetary policy on effective banking activities, market structure, concentration, merger and acquisition processes, and other factors.

Researchers, as a rule, aim at the study of the methodology for evaluating the effectiveness and improvement of certain theoretical and methodological aspects - the development of analytical tools for evaluation, improving the reliability of the evaluation results, reducing their sensitivity to the input parameters of evaluation, and so on.

Taking into account that in the market conditions banks gain autonomy and take full responsibility for the results of their activities, the issue of increasing the efficiency of the market activity becomes a priority for the management of banks. Of particular value is not only the determination of the level of effectiveness and the main factors of influence, but also the use of the results obtained in the future functioning of the bank and adjusting its strategy in the market.

For the last group of subjects the evaluation will focus on certain aspects of the bank's activities depending on their interests: the clients of the bank will be interested in providing quality services at an affordable price; rating agencies - the position of the bank in the market for certain characteristics; tax authorities - degree of performance of tax liabilities; authorities - social efficiency of banks.

Completes the first stage of the choice of the object of evaluation of efficiency, which can be revenue, costs, profit, risk, performance, and others, depending on the goal.

The next step in assessing the effectiveness of the banks' activities is to carry out analytical work, which involves choosing the type of efficiency to be evaluated, the definition of methodological tools and the direct conducting of the calculations.

From the standpoint of evaluating the bank's activities in the economic literature, the following types of efficiency have become widespread:

1. Effectiveness as a measure of achievement of goals reflects the external efficiency of the functioning of the bank. It should be noted that this approach to the assessment of efficiency is most commonly used in Ukrainian practice to assess the effectiveness of banks. The definition of achievement is limited either to the estimation of financial results or the use of techniques that are of a descriptive nature (for example, the overall bank rating on the market, the level of customer loyalty, etc.). The gain or other financial results is only one of many results of the bank's operation, taking into account the appointment of a bank in a market economy.

In foreign practice, unlike the domestic one, a balanced approach to the assessment of the performance of organizations is taking place, taking into account the interest of all parties and based on the system of both financial and non-financial indicators to assess the degree of achievement of goals. This is the so-called balanced indicator system developed by the scientists D. Norton and R. Kaplan in the 90's [68], which, in our opinion, requires additional research in terms of the possibility of using for the assessment of the external efficiency of the bank.

The effect of a scale that occurs in the event of a reduction in costs by increasing the volume of activity. In studies on the assessment of banking efficiency, usually distinguish two types of effect [67, p.483]:

- economy of scale (scale efficiency) - a situation in which an increase in the volume of activity by 1% requires an increase in costs of less than 1%;
- savings due to the structure of operations (scope efficiency) - a situation in which the production of several banking products requires lower costs than the production of its separately.

Economic (operational) efficiency, which is determined by the combination of technical efficiency (the ability to get the maximum output at a fixed level of resources) and the allotment (the ability to optimally use existing resources, taking into account their price and production technology). The terms «technical» and «allotment» efficiency were first presented in the work of M. Farrell in 1957 [66] to assess the economic efficiency of the firm. At the same time, in the literature, the

concept of «X-inefficiency» introduced by H. Leibenstein [69] appears in order to reflect the level of expenses of the firm, which exceeds the minimum required under the given conditions of release, due to the managerial factor. Assessment of this type of effectiveness has become widespread in foreign studies and is based on the use of econometric analysis.

It should be noted that the evaluation of one or another type of efficiency is methodologically linked to the definition of criteria and the corresponding analytical toolkit. The accounting system in the bank, including financial, managerial and tax, serves as an information basis for assessing the effectiveness and making further management decisions.

An analysis of domestic [42; 22] and foreign sources [41; 63; 64] allows us to combine all evaluation tools into two conditional methodological approaches:

- accounting, the main criterion of which is profitability (profitability) of the bank, which is based on the use of methods of financial ratios;
- economic/productive, the criterion of which is the optimality of the activity (including the level of profit, costs and risk), based on the economic-mathematical modeling.

The first approach, based on an assessment of the bank's performance in relation to the profitability of the banking business, determines its effectiveness as a relative estimated value. In this case, the main indicators of efficiency are ROA and ROE, net interest margin, net spread, labor productivity, cost-effectiveness, etc. Despite the benefits of the method of financial ratios (the simplicity of the calculation and interpretation of the data, the availability for all subjects of evaluation), the use of the method is limited to the complexity of determining the factors of influence on efficiency, the retrospective nature of evaluation, focus on the short-term financial performance of the bank, which, to a large extent, reduces its value for further analysis and strategic decision making. DuPont's analytical model or the method of decomposing analysis of the return on equity is also based on the method of financial ratios, although it allows one to identify factors that influence the profitability of a bank's capital. The considered approach identifies

the notion of effectiveness of the activity with profitability, allowing to assess, thus, only one of the parties effective performance of the bank.

The second approach to efficiency assessment is considered by the bank as a financial services firm based on the synthesis of the theory of financial intermediation and the theory of the firm. In accordance with it, efficiency is considered as a characteristic of the production process, namely, the optimality of the organization of banking activities, following the basic principle of economic activity - minimizing costs and maximizing output. It should be noted that in economic research the main tool for displaying the functioning of any production system at both macro and micro levels is the multifactorial production function, which allows to investigate the laws of economic processes, solve problems of analysis and planning, etc. For banks as economic agents of particular interest are cost functions (cost efficiency (1.1) and profit functions - profit efficiency (1.2):

$$C = C(w, y, z, u, e), \quad (1.1)$$

$$P = P(p, y, z, u, e), \quad (1.2)$$

where C - costs, P - profit, w - vector of resource prices, y - vector of release, z - vector of specific factors of influence on the bank activity (capital structure, level of risk), p - output price vector, u - inefficiency parameter, e - error.

In order to evaluate the ineffectiveness and error parameters, distinguish between parametric and nonparametric estimation methods [63; 64; 33; 70]. Among the non-parametric distinguish two methods that allow you to assess the relative efficiency of the banks, ie, the technological aspect of efficiency, with the following features:

- analysis of the operating environment (DEA - Data Envelopment Analysis)
- provides for the possibility of interchange of resources in the production process of banking products;
- free shell method (FDH - Free Disposal Hull) - eliminates the possibility of interchange of resources.

Nonparametric methods for assessing the bank's performance enable us to

take into account the combination of factors of influence both on input parameters (resources) and output (issue). However, the application of these methods is limited to ignoring the possibility of error (both in the process of constructing the model and in the process of calculating the efficiency) and assessing only the technological aspects of efficiency.

Parametric estimation methods allow to evaluate allocative efficiency (ability to optimally manage resources, taking into account their price), take into account a random error and include:

- Stochastic Frontier Analysis (SFA) - allows you to separately assess the impact of the inefficiency parameter and random error on the efficiency level;
- Distribution Free Approach (DFA) - involves a constant level of performance of an individual bank over a period of time, ignoring the effect of external and internal factors on the bank's activities;
- Thick Frontier Analysis (TFA) - is used to assess the average efficiency of a bank voter.

When using parametric methods, the construction of the efficiency threshold involves the use of the maximum probability method, the least squares method and the corrected least squares method, the method of moments, etc.

Particular attention in the process of assessing the efficiency of banks requires the choice of input and output parameters that characterize the technology of banking activities, and significantly affect the results of the assessment. In foreign economic thought, distinguish two main approaches that differ in the definition of the economic nature of «deposits» [70]:

- production approach, which considers the bank as a financial services supplier, respectively, deposits are considered as the output parameter of activity;
- intermediation (intermediation approach), taking into account the specifics of banking activity, deposits are a resource for the bank's activities.

The purpose of the last step of evaluating the bank's performance is to summarize the results of the study, identify and analyze the factors affecting the level of efficiency of the banks through auxiliary methods, the formulation of

conclusions and proposals.

Thus, the study of foreign and domestic experience in assessing the effectiveness of the bank allowed to develop methodological principles for its evaluation. Our proposed steps for evaluating efficiency are, firstly, a way to systematize the research carried out, and secondly, serve as a universal and flexible tool for analyzing the activities of banks for different subjects and the purpose of the study; thirdly, serve as a tool for further improvement of the theoretical and methodological basis for assessing the effectiveness of banks.

1.3. Factors affecting bank's efficiency

The main purpose of banks activity is profit. With the help of profit, there is the formation of reserves and funds in the event of losses that are possible in the banking sector. Profit is also one of the main incentives for management to improve the Bank's performance and increase its competitiveness.

The essence of profit is viewed by most scholars from the same point of view - as part of the added value of the realized product, which remains after covering all costs.

The size of the bank's profit is influenced by both external and internal factors.

External factors include the emergence and effect of which on the formation of the profit of the bank does not depend on its activities. These factors include: the state of the country's economy, the level of development of industry, the level of imports and exports, the change in the exchange rate, the change in the discount rate, the change in the size of mandatory reserves, tax legislation, the change in yields on government securities, the state of international stock and currency markets, crisis phenomena in the country, competition in the market of banking services.

As for the economy, the ability to lend both the company and the general population characterizes the healthy state of the economy.

Deceleration in industrial growth may lead to an increase in wage arrears, lower incomes, and an increase in unemployment.

Another external factor is the exchange rate change. Banks receive a profit from the exchange rate changes on foreign exchange markets. Currency arbitration is one way of making a profit by banks.

The discount rate has an effect on the interest rates of commercial banks on loans and deposits, which affects the financial performance of banks.

Depending on the situation on the market, the central bank changes the rate of mandatory reserve. Under restrictive monetary policy, the central bank raises the norm of mandatory reserves, which leads to a reduction in the credit facilities of commercial banks and a reduction in money supply in circulation, which in turn leads to a decrease in bank profits [53].

Rates and methods of taxation of customers have an impact on a range of banking products, that is, the taxation system for business entities and individuals indirectly affects the choice of business activities of the bank. Also, the financial results directly affect the system of taxation of the bank itself as a business entity [62].

The yield of government securities has a direct impact on the yield of banks, and even with the increase in yields of government securities, the bank that has bought them also receives higher returns on these securities.

Due to crisis phenomena there are losses of the banking system due to the outflow of population funds from bank accounts, growth of debt, reduction of liquidity of banks, and therefore the profit of commercial banks decreases.

In the presence of competition, the bank takes into account the advantages and disadvantages of competitors, and based on data organizes its activities. Also, this factor affects the profitability of the bank through the quality of products, assortment and their price.

In addition to external factors affecting the profit of the bank, it is necessary to consider internal factors, that is, those that affect the formation of profits through the activities of banks and management decisions that have been taken by

its top management.

The internal factors include: qualifications of personnel, working conditions, banking technologies, risky activity, efficiency of using bank resources, social factors.

Staff qualifications play a significant role in the development of banking activities. Often, the inhibition of the development of banking business is due to the lack of highly skilled professionals in the banking sector and poor corporate governance [56].

The working conditions are a stimulus that forces them to work with a certain impact. This factor affects the efficiency of labor, and as a consequence, in turn, on the activities of the entire bank.

Technologies are also a factor affecting the bank's profit. Banking technologies can have a significant impact on the bank's ability to offer new products and services, to enter new markets and to segment the market that will affect the competitiveness of the bank and, as a result, the financial result.

As for riskiness, here, for the most part, there is a «golden rule» of investments - a proportional relationship between the return on assets and the risk of probable losses of funds for them [36].

Social factors are also factors of influence, and are most uncontrollable. These include: propensity to save and extraordinary factors.

Consequently, all these factors affect the level of income received by the bank, and in the final result - profits [58].

Many works are devoted to the classification of factors affecting the profit of the bank.

I.M. Parasi-Vergunenکو divides the factors into general (creating the same conditions for functioning for all economic entities) and specific (affecting the activities of specific economic entities). reference

L.O. Primostka allocates factors, grouping them around the environment: intrabank factors and external to the bank. reference

O.S. Dotsenko shares the factors of economic, political, legal, socio-

economic, as well as internal and external. reference

Influencing factors by its belonging to the macro environment (economic, political, legal, social, natural and climatic, and scientific and technological sphere of the external environment of the bank) or the micro environment (considered through the interconnection of the bank with the entities) in which the bank operates I.O. Kariev. reference

In the work of O.I. Shevtsova distinguishes individual factors of influence on the components of interest income of the bank. They are divided into those that are objective in nature and independent of individual banks, that is, macroeconomic, and those that depend on the results of a particular bank's business and the solvency of its customers - microeconomic [60].

Analyzing the foregoing, one can distinguish the following factors affecting the profit of the bank, depicted in Fig. 1.1.

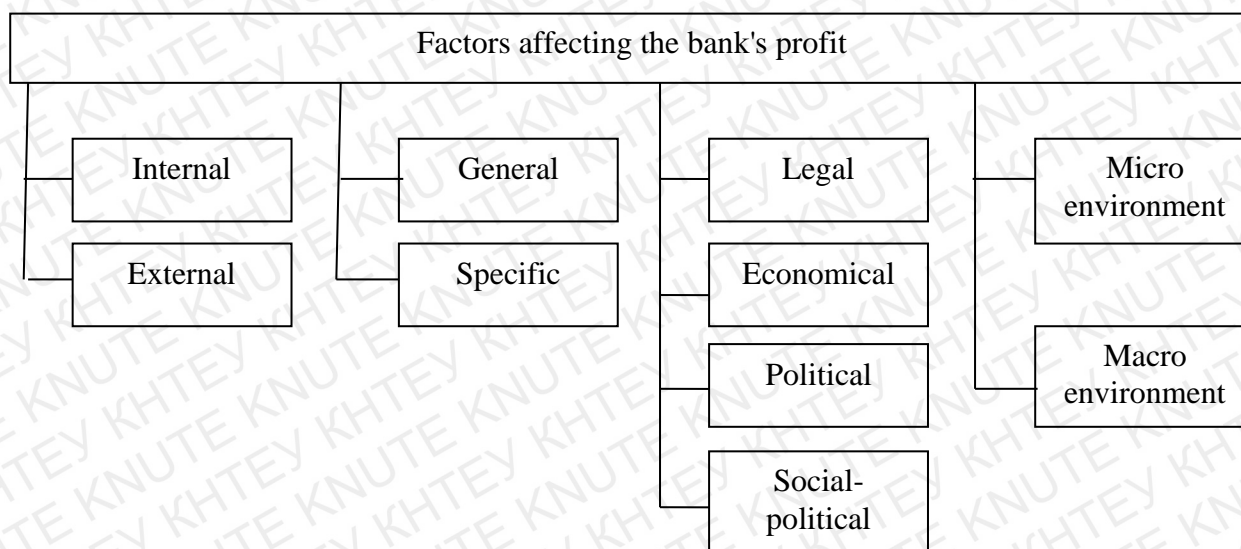


Figure 1.1. Factors affecting the bank's profit [9]

Consequently, the main purpose of banks' activity is profit. For today, there are a large number of factors that influence the formation of the bank's profits, as well as a significant number of their classifications. These factors can not affect profits separately from each other, because they are interconnected, so one factor

entails a number of other factors.

Efficiency of banking activity is a multi-dimensional concept that is related to the subject, object, purpose, etc. For example, monitoring the effectiveness of banks depends on who is taking the position - investor (owner), regulator, client, etc. The double nature of the efficiency of banks is the consequence of the fact that banks, being private institutions, act as a source of public goods at the same time, therefore, effective from the point of view of the owners of the banks may be ineffective from the point of view of the economy and vice versa.

The complexity of determining the effectiveness also lies in the fact that, on the one hand, it is a general category that covers both quantitative and qualitative characteristics of banking business, but it is incorrectly reduced to any one aggregate indicator, on the other hand - a significant number of indicators are not allows to objectively evaluate the conduct of banking activity, as well as complicates the comparison of the data between different states, etc.

PART 2. AN ASSESSMENT OF THE BANK'S EFFICIENCY

2.1. Organizational and informational support for assessing the efficiency of the bank

Joint Stock Company Raiffeisen Bank Aval (JSC Raiffeisen Bank Aval) was registered on 27 March 1992 (operated under the brand name of Joint Stock Postal Pension Bank Aval until 25 September 2006). Since October 2005, the bank has been part of Raiffeisen International Bank Holding AG Group, Austria (since October 2010 – Raiffeisen Bank International AG). On 31 December 2017, the RBI Group held 68.28% of Raiffeisen Bank Aval's authorized capital, and the European Bank for Reconstruction and Development owned 30% of the authorized capital of the bank.

Raiffeisen Bank Aval provides a wide range of standard and innovative banking services to more than 2.5 million customers via its nationwide network, which comprised, as of the end of December 2017, 500 outlets located throughout Ukraine.

Raiffeisen Bank Aval maintains its leadership in the service quality in the Ukrainian banking sector. According to GfK Ukraine, which is specialized in market researches, the reputation of the bank outreaches the average market one.

Substantial successes of the bank are traditionally recognized by reputable editions and experts, rating companies, partners and customers in Ukraine and abroad. Among those awards were «Best Bank in Ukraine» (by Euromoney, Global Finance, EMEA Finance), «Best Trade Finance Provider in Ukraine» (Global Finance); «Most Active Issuing Bank in Ukraine under the Trade Facilitation Program» (EBRD) and many other.

The Bank strives to further improve its customer service quality through using its long-term experience, the valuable expertise of Raiffeisen Bank International network banks and the newest technologies.

Raiffeisen Bank Aval is a public joint-stock company having the following

administrative bodies:

— supreme administrative body: General shareholders' meeting (the «Meeting»);

— executive body: Management Board (the «Board»).

The scope of competence of the Meeting as the supreme administrative body includes all matters of the bank's activity.

The key principles of the bank's corporate governance include:

- protecting rights and interests of the bank's shareholders;
- prudent, diligent and efficient performance by the Supervisory Board and the Management Board of their functions;
- loyalty and responsibility of the bank's officials;
- preventing conflicts of interests;
- transparency of information policy;
- risk management; controlling the bank's economic and financial performance;
- realizing the bank's social role and responsibility for its employees.

As at 31.12.2017, members of the Management Board held 24,000 (twenty four thousand) ordinary registered shares in the bank.

Traditionally, the bank's treasury department provides diverse services to internal and external customers and is an active participant of all segments of Ukraine's financial market. The bank's impeccable reputation of a reliable partner helps ensure the most efficient performance in today's unstable conditions of the interbank foreign exchange market and possible unforeseen changes in Ukrainian legislation and the National Bank's regulatory acts.

As a highly-professional operator of the interbank market, the treasury maintains partner relationships with a large number of Ukrainian and foreign banks, allowing Raiffeisen Bank Aval to retain consistently high turnovers in the monetary and conversion markets. At the same time, the treasury strictly adheres to all limits on counterparties, the types and volumes of transactions.

The use of advanced merchant and information analysis systems allows the

treasury to promptly respond to the current market situation and make fast and efficient decisions.

One of the key areas of the treasury's activity is efficient management of the bank's liquidity. Thanks to continuous monitoring and forecasting of the bank's current, short- and long-term payment positions, the treasury's specialists were able to achieve, during the reporting year, an optimal balance between the bank's risks, profit and liquidity, maintain the liquidity margin necessary to protect the bank against possible unfavorable changes in macroeconomic situation, and adhere to the NBU's liquidity and obligatory reservation ratios.

The bank retains the leadership in terms of the amount of foreign currency in cash, imported to the Ukrainian market to meet own and the interbank foreign exchange market needs.

Without a doubt, each bank must maintain a sensitive and constant control over its activities. The main body responsible for monitoring and evaluating the bank's activities, and therefore its effectiveness, is the bank's internal audit service [Appendix G]. Internal audit is an independent, objective assurance and consulting activity designed to analyze performance and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing in a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

The Internal Audit Division is a permanent organisational component of the Bank, which executes its tasks throughout the year. All auditors exclusively act for the Internal Audit Division. The nature and extent of its activities are defined by a risk-oriented audit planning. Internal audit engagements are to be carried out on any activity of the bank. Any division and employee, including those who perform control functions, are subject to audit (except the Internal Audit Division itself). The Internal Audit Division is independent in its audit planning, auditing and reporting as well as in the evaluation of audit results. Furthermore, the Internal Audit Division or its staff are prohibited from being involved in performance of banking operations and other transactions, decision or business processes

(including signing any payment, accounting or any other documents approving the banking risks admission), nor are they allowed to take over other tasks, which are not consistent with its audit activities.

The Internal Audit Division does not perform activities that are subject of audit with exception of independent checks performed by external audit company. The main tasks and functions of the internal audit service are determined by the purpose of its creation.

The main functions of the Bank's internal audit service are:

- reduction of risks in carrying out operations related to rational and efficient use of bank resources;
- providing recommendations to the structural units of the bank in the planning process, at the stage of development and introduction of new products, processes and systems;
- conducting an audit of the activities of the Bank's structural units in order to provide analysis and evaluation of internal control, policies, and procedures of the bank concerning the adequacy, conformity, efficiency and accuracy of accounting data and the preservation of bank assets;
- verification of the results of the current financial activity of the bank, supervision of the current activity of the bank, compliance with officials, bank employees, as well as by the bank requirements of the current legislation of Ukraine and decisions of the governing bodies of the bank;
- constant supervision of the systems of operational procedures and methods of their accounting;
- verification of management and transfer of financial information, including electronic information systems and electronic banking services;
- coordination of its activities with the actions of independent audit firms during the external audit of the bank in order to provide optimal conditions in which audit firms can rely on the findings of the Internal Audit Service to avoid duplication of efforts;
- Preparation and presentation of conclusions and reports during the inspection.

The main goal of the activity performed by the Internal Audit Division is to assist the Bank's management in ensuring the high effectiveness of the Bank's internal control system and its ability to reveal and provide an adequate reaction to risks related to the Bank's activity. In accordance with the fundamental approach to the extent of audit activities worked out by the Institute of Internal Auditors and with Ukrainian law regulations, the main tasks and functions of the Internal Audit Division are as follows:

- promoting the adequacy of the Bank's internal control system and operational procedures;
- impartial and objective evaluation of the financial, operating, other systems and control procedures in the bank, assessment and analysis of the performance by the officials and staff of the bank of the charter, internal provisions of the bank for conducting operations within the limits of the banking license granted by the National Bank of Ukraine or permission for individual banking operations ;
- facilitating the organization of accounting;
- introduction of an effective, reliable and complete information management system for the timely detection and elimination of deficiencies and violations in the conduct of banking operations;
- timely detection of violations and shortcomings in the activities of structural subdivisions, elaboration of optimal solutions for their elimination and elimination of the causes of these shortcomings in the bank's activities;
- investigating violations committed within its authority and preventing future violations in the internal control system as well as preventing any risks;
- identification of areas of potential damage to the bank, favorable conditions for fraud, abuse and misappropriation of the bank;
- reviewing the recommendations provided for the implementation of the requirements for effective management of banking risks;
- Establishing and maintaining interaction with external auditors, state bodies of control and the banking supervision service of the National Bank of Ukraine;

- providing the Supervisory Board of the Bank and the heads of the audited structural units with conclusions about the results of the audit and the proposals for improving the internal control system in force at the bank.

The Internal Audit Service has:

- conduct audits to assess the adequacy and effectiveness of the bank's internal control, its compliance with the degree of potential risk inherent in various areas of the bank's activities, and evaluate it;
- provide for the organization of permanent control over the observance of the established document circulation by the employees of the bank, the procedures for carrying out operations, functions and powers in accordance with the duties assigned to them;
- to consider the facts of violations by the bank's employees of the current legislation, normative acts of the National Bank of Ukraine and standards of professional activity, internal documents regulating and defining the policy of the bank;
- to recommend to the management of the bank to take decisions on prevention of actions, the result of which may be violations of the current legislation, regulations of the National Bank of Ukraine;
- to develop recommendations and guidelines for elimination of violations found, improvement of the system of internal control and control over their use and implementation;
- to provide security and return of documents received from branches of the bank on all carriers;
- To ensure the completeness of documenting each fact of the audit, to draw up in writing conclusions, which should reflect all the issues studied in the process of verification, and recommendations given to the management of the bank;
- control the organization of work in the bank to study all employees of the requirements of the current legislation of Ukraine, regulations of the National Bank of Ukraine, other subordinate and departmental acts, internal documents of the bank on the basis of the list of official duties;

- Participate in meetings of the supervisory board and the board of the bank during the discussion of issues

Analyzing the effectiveness of the bank. The internal audit service conducts its analysis based on the documents that the bank's indicators, namely

1. Balance Sheet. The balance sheet determines the composition and structure of the bank's property, the liquidity of the bank, the presence of own and borrowed capital, changes in receivables and payables, etc. Articles of the report are placed in the order of reduction of liquidity. Bank ensures the identity of the assets of the amount of liabilities and equity of the Balance sheet.
2. Report on financial results. The Bank generates a statement of income from items of income and expenses, which are grouped by their nature and main types of income and expenses by the end of the last day of the reporting period (quarter, year).
3. Report on Cash Flows. The cash flow report reflects the sources of cash and cashless funds received by the bank, the direction of their use in the reporting period, cash flows for the reporting period, depending on the type of activity (operational, investment, financial).
4. Report on equity is a financial report that reflects changes and movements in equity for the year.
5. Notes to reports. The Bank makes notes based on synthetic and analytical accounting data that are an integral part of its financial statements. (In notes, the bank discloses information about the composition of assets and liabilities, income and expenses, off-balance sheet commitments, trust management operations, as well as the main principles and methods of accounting policies of the bank (the parent bank) and its changes during the reporting period, other information, submission of which required by international financial reporting standards and national accounting standards (accounting standards).

The effectiveness of banking activity is reflected exclusively in the financial statements, which is based on the fact that these statements reflect a combination of factors of all types of financial institutions that are actively pursued.

2.2. Key performance indicators of the bank

Currently, the banking industry is undergoing evolutionary changes around the world. This primarily relate to the provision of non-banking services by banks, implementation modern innovative technologies in the management of banking institutions and inherent risks. With an increase in the share of foreign capital domestic banking institutions face fierce competition, so nowadays, the key task for domestic banks is to increase the efficiency of their activities and the provision of banking services.

First of all competition is important among banks because of welfare-enhancing for consumers and businesses than it also reinforces the monetary policy of the Central Bank. And competition creates relationship with:

- Innovation
- Solvency
- Financial stability
- Accessibility of the banking system to customers.

Banks of course play a crucially important role in the economy because of their core products: loans to businesses and for house-purchase. Hence competition and efficiency in banking are also highly important: high quality at low cost boosts welfare. Competition is also important for adequate monetary transmission, which is the speed at which policy interest rates set by central banks pass through to bank interest rates.

But competitiveness in turn is expressed through a number of indicators of financial efficiency of the bank. They act as one of the strongest analytical levers for regulators and consumers. That is why banks need to pay particular attention to the value of the traditional indicators if they want to create a positive image and to be perceived positively by general public.

For now, this is a rather topical issue for Ukraine, but scientists continue solve the problems of the economy, using the experience of other countries, but do

not consider *acquis communautaire*, and introducing leverages that do not fit current state of the economy.

In nowadays, when the world banking market is developing fast and furious as well as the new financial instruments are being implemented in the whole world practice banks should be able to catch up with all variety of inventions and do it efficiently.

In its simplest form, a *key performance indicators* (KPI) is a type of performance measurement that helps you understand how your organization or department is performing. A good KPI should act as a compass, helping financial managers and their team to understand whether they are taking the right path toward strategic goals of the bank. The trouble is, there are thousands of KPIs to choose from. If managers choose the wrong one, then they are measuring something that doesn't align with goals of their organization. The best way to accomplish this is by researching and understanding some of the most important KPIs. This way, managers will have a better understanding of which ones are specific to their industry and which ones will be of no benefit.

Table 2.1

Key performance indicators of Raiffeisen Bank Aval during 2015-2018 on the 01.01

| KPI | Period | | | |
|----------------------|-----------|-----------|-----------|----------|
| | 2018 | 2017 | 2016 | 2015 |
| ROA (%) | 5,47 | 6,08 | 4,89 | -2,00 |
| ROE (%) | 75,08 | 68,81 | 104,85 | 62,77 |
| ROS (%) | 10,84 | 13,33 | 11,95 | -4,45 |
| CAR (%) | 17,16 | 19,48 | 23,34 | 18,91 |
| NIRS (%) | 7,37 | 6,37 | 6,98 | 5,72 |
| RpE (€) | 12 593,70 | 11 680,45 | 10 822,53 | 9 245,14 |
| Efficiency Ratio (%) | -28,80 | -31,02 | -32,95 | -24,16 |
| NPL Ratio (%) | 15,05 | 17,84 | 32,96 | 37,43 |
| NCO Ratio (%) | 12,58 | 19,02 | 101,78 | 118,94 |
| LtD Ratio (%) | 64,53 | 73,62 | 82,37 | 85,66 |
| T1 Capital Ratio (%) | 9,55 | 10,56 | 15,01 | 16,87 |
| LTV Ratio (%) | 3,30 | 4,88 | - | - |

Table 2.1 Continuation

| | | | | |
|-------------------|--------------|---------------|--------------|---------------|
| EBITDA (ths. UAH) | - | 11 546 682,00 | 7 741 838,00 | 11 636 892,00 |
| NOPAT (ths. UAH) | 1 178 697,78 | 934 738,74 | 888 235,92 | 828 842,58 |
| CAPM (%) | 7,39 | 6,43 | 9,21 | 6,12 |

**Selfmade on the basis of: 72;73;74;Appendix A;Appendix B;Appendix C*

Indicators of the domestic bank have grown significantly and continue to observe the growth trend across our country. Some indicators compared to the group have a much greater focus, such as ROA, ROS, Efficiency ratio, and some smaller - CAPM, which is explained by the volume of current assets of the subsidiary and the parent group, as well as the low impact of the situation in Ukraine as a whole on Raiffeisen Bank Internationale. Group indicators are induced in [Table 2.2]

Table 2.2

Key performance indicators of Raiffeisen Bank International AG during 2015-2018 on the 01.01

| KPI | Period | | | |
|----------------------|----------|----------|----------|----------|
| | 2018 | 2017 | 2016 | 2015 |
| ROA (%) | 0,83 | 0,39 | 0,41 | 0,33 |
| ROE (%) | 87,77 | 111,18 | 101,27 | 104,41 |
| ROS (%) | 1,98 | 1,19 | 1,34 | 1,12 |
| CAR (%) | 17,93 | 17,38 | 19,21 | 16,66 |
| NIRS (%) | 2,33 | 2,33 | 2,62 | 2,91 |
| RpE (EUR) | 1 132,65 | 1 095,12 | 1 064,48 | 1 501,78 |
| Efficiency Ratio (%) | -3,45 | -7,31 | -7,23 | -8,93 |
| NPL Ratio (%) | 0,35 | 0,93 | 1,05 | 1,06 |
| NCO Ratio (%) | 7,23 | 2,25 | 8,05 | 7,97 |
| LtD Ratio (%) | 0,89 | 0,85 | 0,95 | 0,95 |
| T1 Capital Ratio (%) | 12,67 | 13,68 | 13,88 | 11,34 |
| LTV Ratio (%) | 0,21 | 0,11 | 0,14 | 0,13 |
| EBITDA (mln. EUR) | 7 838,49 | 8 187,12 | 7 352,30 | 8 677,92 |
| NOPAT (mln. EUR) | 3 920,68 | 3 833,82 | 3 519,17 | 3 696,56 |
| CAPM (%) | 12,55 | 11,90 | 11,40 | 11,30 |

**Selfmade on the basis of: 72;73;74;Appendix D;Appendix E*

But through the variety of overall existed KPIs which are needed to be used

by every bank, defining a KPI for each bank or financial company can be tricky business. The operative word in KPI is “key” because every KPI should be related to a specific business outcome. KPIs are often confused with business metrics. Although often used in the same spirit, KPIs need to be defined according to critical business objectives.

On the basis of the above, it follows that each company uses its own KPI indicators. Many of them have unique approaches to determining these indicators, because for each bank or financial institution they will vary due to the chosen strategy or goal.

For example DBS Bank Group (Singapore) measures performance on the basis of Balanced Scorecard. The scorecard is divided into two parts of equal weighting. Specific objectives for each part are updated every year and approved by the Board. Specific key performance indicators (KPIs) are in place to track the progress made in serving the interests of shareholders, customers and employees. KPIs relating to regulators and society are embedded in their scorecard and cut across all aspects of their operations. As they operate in a regulated industry, upholding regulatory requirements is paramount and underlies all their decisions and actions. They recognize the importance of serving society at large and are committed to giving back to the community [Appendix F].

The top part of the scorecard comprises KPIs set for the current year. Shareholder metrics measure the financial results achieved and include income growth, expense-related ratios and return on equity. We measure risk-related KPIs to ensure that the Group’s income growth is balanced against the level of risk taken. Control and compliance KPIs are also a focus in this section. Customer metrics measure the Group’s achievement in increasing customer wallet share and satisfaction. Employee KPIs, such as employee engagement, training, mobility and turnover, seek to measure the progress we have made in being an employer of choice.

The bottom part of the scorecard sets out the initiatives we intend to complete in the current year as part of our longer-term journey towards achieving our

strategic objectives. Specific KPIs and targets are set for our nine priorities and other areas of focus. Our ability to meet the current-year targets in the first part is dependent on successfully executing the second part in preceding years. [84]

CIS countries also try not to fall out of the trend line, therefore they try to succeed in developing new approaches to measuring key performance indicators. We are talking about the so-called "233 KPIs" mechanism, the proposals on the basis of which the "road map" of the Central Bank of the Russian Federation for the implementation of the main directions of the financial market development until 2018 should soon be replenished. The "233 KPIs" mechanism was originally launched in 2013 and was a program of discussions between the regulator and market participants, consisting of 223 points – hence the name, this is not the number of performance indicators themselves. However, KPI may become relevant for banks following the results of the next meeting with representatives of the financial sector on March 30, where they will discuss their proposals for market development. Actually, the banking sector in the "233 KPIs" mechanism has not yet been introduced (although there are insurance companies and pension funds), but everything should change soon [85].

National Bank of Ukraine identify about 29 key performance indicators, they are:

1. Assets
2. Cash
3. Bank metals
4. Funds in the National Bank of Ukraine
5. Correspondent accounts opened with other banks
6. Term deposits with other banks and loans granted to other banks
7. Loans are provided to clients
8. Reserves for active operations of banks (including provisions for operations accounted for on off-balance sheet accounts)
9. Passives
10. Capital

11. Term deposits (deposits) from other banks and loans received from other banks
12. Funds of economic entities
13. Funds of individuals (with savings (deposit) certificates)
14. Funds from non-bank financial institutions
15. Reference:
16. Return on assets, %
17. Return on equity, % Assets
18. Assets in foreign currency
19. Cash
20. Bank metals
21. Funds in the National Bank of Ukraine
22. Correspondent accounts opened with other banks
23. Term deposits with other banks and loans granted to other banks
24. Loans are provided to clients
25. Reserves for active operations of banks (including provisions for operations accounted for on off-balance sheet accounts)
26. Passives
27. Capitalized
28. Return on assets, %
29. Return on equity, %

As of January 1, 2017, 96 banking institutions had the license of the National Bank of Ukraine (including 38 banks with foreign capital). Since the beginning of 2016, the number of functioning banking institutions has decreased by 21. In total, at the date of preparation of this review from the beginning of 2014, as a result of deteriorating solvency, 82 administrations were introduced. In four, the interim administration continues to work on

So let's take a closer look to a state of Ukrainian banking sphere through the analysis of main key performance indicators, we will reflect the situation in the banking market of Ukraine through 9 main indicators from the list, because they

reflect the state of financial activities of a commercial bank directly, through the prism of which we can judge its efficiency

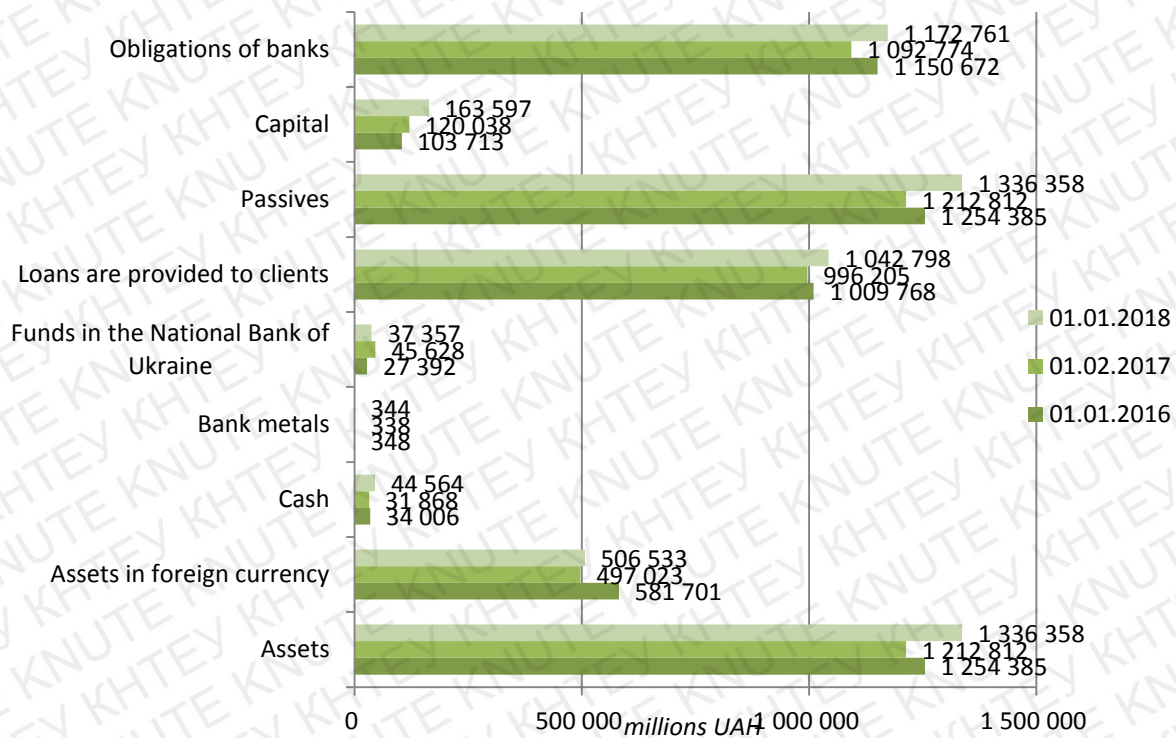


Figure 2.1. Key performance indicators of Ukrainian banks during 2015-2017 on the 01.01 [77]

Analysing everything above we can make a conclusion that, despite all the crisis phenomena that have affected the banking system of Ukraine, commercial banks continue to be financial intermediaries in the national economy. The banks' assets during the 2014-2016 period grew, but this was not due to natural growth, but as a result of the devaluation of the national currency and the deterioration of the economic situation in Ukraine as a whole and the situation this on Donbass in particular. Taking into account the risks of the environment, banks carried out very limited lending activity. Lending to the real sector of the economy remains low.

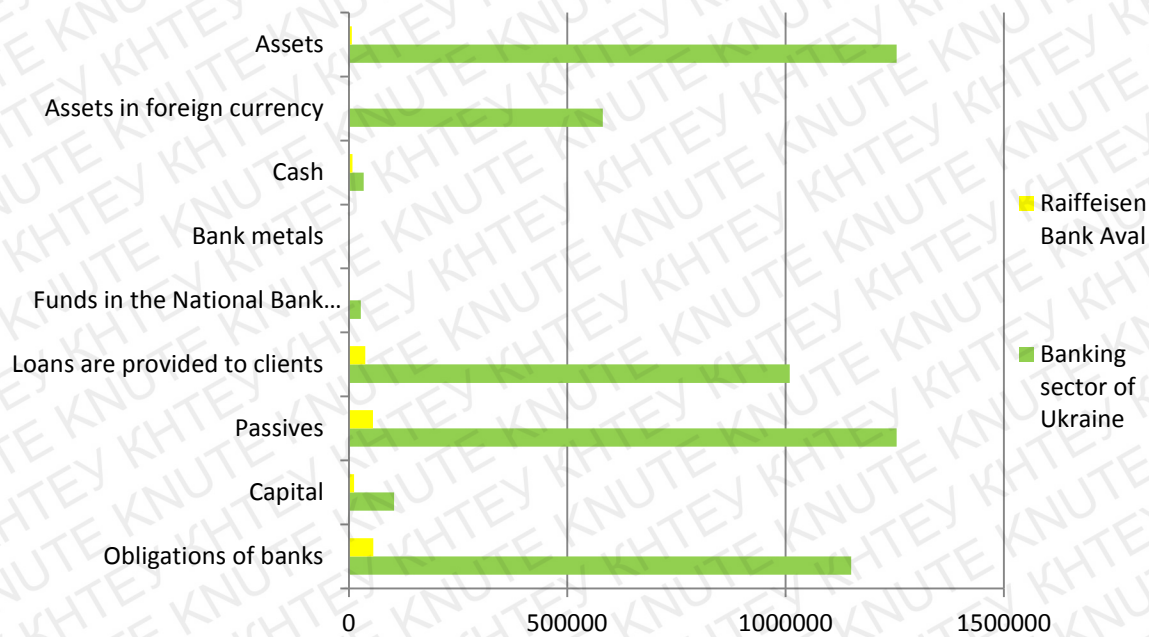


Figure 2.2. Key performance indicators of Raiffeisen Bank Aval during 2015-2017 on the 01.01 (mln UAH) [83]

The liabilities of banks increase the share of domestic resources of the population and business. But domestic sources of funding are short-term, creating a liquidity risk. To reduce it, banks need to more differentiate interest rates for short and long deposits. At the present stage, the Ukrainian economy has seen positive trends in economic growth, the pace and stability of which depend primarily on the ability of the banking system to provide business entities with the necessary credit resources. Currently, there is a stabilization of the banking sector. Thus, by mobilizing and placing financial resources in the financial market of Ukraine, commercial banks as the main institutional players play a leading role in the process of its functioning.

The level of profitability depends on the strategy defined by the bank, the effectiveness of asset and liability management, banking risk control, and the methods used to maintain liquidity. To increase the profitability Ukrainian banks should pay more attention to reducing risks, improving the quality of assets and liabilities, increasing income from non-financial operations and reducing costs, primarily administrative ones and all these parameters should be presented in the KPI models of banks and regulators.

2.3. Integrated assessment of the bank's performance

The financial condition is an important characteristic of the enterprise, which reflects the results of economic activity and determines its financial capacity. The results of the analysis of the financial state make it possible to formulate the appropriate financial policy and develop measures aimed at increasing the efficiency of the use of financial resources of economic entities.

The financial condition of the enterprise is characterized by a set of certain financial indicators, therefore, for the comparison and ordering of individual enterprises, it is necessary to aggregate all the features of the set to one quantitative indicator, which is an integral estimate. One of the varieties of integral assessment is a rating, which is essentially a comparative analysis of units of the population under study.

The methodology for evaluating the financial condition of an enterprise and the calculation of the integral estimation involves the implementation of several stages, namely:

- definition of the main directions of evaluation;
- choice of the main financial coefficients for each of the analytical directions;
- Calculation for each of the coefficients of normative value;
- Determining the weight of individual coefficients;
- formation of general indicators; development of an integrated assessment of the financial condition of the enterprise.

Conducting diagnostics according to the integral indicator of financial and economic activity allows obtaining sufficiently comprehensive information about the financial condition of the enterprise at this stage of its development and possible dynamics in the future. Integral evaluation is formed on the basis of description of the investigated object, which is characterized by a large number of features, a smaller number of informative indicators.

At the present stage, the activities of commercial banks occur in general economic and socio-political conditions, which have a different impact on the reliability and efficiency of the performance of banking institutions by their functions. In recent years, the problem of assessing the efficiency of the banking system of Ukraine has become paramount. In order to carry out such an assessment, an appropriate tool is needed to assess the activity of commercial banks in general. This toolkit is a summary evaluation of the bank's activities based on ratings.

At present, there is a large number of methodological approaches to assessing banking activity. Among the famous Russian techniques, one can distinguish the following: the Russian method based on the model V. Kromonov, the rating of the Russian newspaper Izvestia, the rating of the Russian consulting company PACC, the rating "Kommersant-DAILY". Among the methods of Ukrainian specialists the most well-known are: ranking according to the methodology of O. Shirinskaya, domestic methodology of rating assessment of banking experts, CAMELS system, rating rating of reliability of the bank by the methodology of the Companion magazine, alternative methodology for determining banks' ratings O. Shmatova, methodology of the rating agency "Transparent Ukraine " All of the above methods analyze the activities of commercial banks in various aspects based on a specific set of indicators

It is established that the shortcomings of the existing rating systems are the imperfection of the information base, the lack of efficiency in providing information and differentiating categories of users, which plays a crucial role in analyzing the activities of commercial banks at the present stage of economic development. An example of the methodology for rating the current reliability of banks is the methodology of V. Kromonov, developed in the mid-1990s by a group of Russian scientists for banks in the CIS and the Baltics. It is based on the use of the index method and for a long time was considered to be the most complete coverage of the financial and economic aspects of the activities of banking institutions.

According to this method, the rating assessment of the bank's reliability is calculated in stages. In the first stage, the absolute values of the balance sheet indicators are determined: the size of the shared capital, balance capital, capital vanguard, that is, the value of assets that are not sensitive to inflationary risks, the amount of aggregate liabilities, instant liabilities, liquid and operating Assets. On the second stage, by means of the ratio of the individual parameters, six parametric coefficients are calculated:

Table 2.3

**Parametric coefficients of Raiffeisen Bank Aval by Kromonov Model
during 2015-2018 on the 01.01**

| Parametric coefficients | Period | | | | Formula |
|--|--------|------|------|------|---|
| | 2018 | 2017 | 2016 | 2015 | |
| The general coefficient of reliability | 0,15 | 0,16 | 0,17 | 0,12 | $k_1 = \frac{\text{balance capital}}{\text{Operating assets}}$ |
| Quick Liquidity Ratio | 0,33 | 0,41 | 0,52 | 0,51 | $k_2 = \frac{\text{Liquid assets}}{\text{Instant Liabilities}}$ |
| Cross-factor | 0,85 | 0,84 | 0,83 | 0,88 | $k_3 = \frac{\text{Total liabilities}}{\text{Operating assets}}$ |
| General liquidity Ratio | 1,24 | 1,37 | 1,45 | 1,28 | $k_4 = \frac{\text{Capital vanguard} + \text{Liquid assets}}{\text{Total liabilities}}$ |
| Protected capital Ratio | 5,28 | 4,95 | 4,60 | 5,74 | $k_5 = \frac{\text{Capital Vanguard}}{\text{Balance capital}}$ |
| Stock capitalization profit Ratio | 1,71 | 1,77 | 1,43 | 1,02 | $k_6 = \frac{\text{Capital Vanguard}}{\text{Balance capital}}$ |

**Selfmade on the basis of: Appendix A; Appendix B*

The end result of the rating construction is the current reliability index N, calculated using the use of heuristic valuation - dividing the indicators of a particular bank into the indicators of the so-called optimally reliable bank, for which the values of k3 and k6 should be equal to 3, other indicators - 1, using the formula:

$$\text{Reliability Ratio}_{2018} = 45 * k_1 + 20 * k_2 + \frac{10 * k_3}{3} + 15 * k_4 + 5 * k_5 + \frac{5 * k_6}{3} = 63,90 \quad (2.1)$$

$$\begin{aligned} \text{Reliability Ratio}_{2017} &= 45 * k1 + 20 * k2 + \frac{10*k3}{3} + 15 * k4 + 5 * k5 + \\ \frac{5*k6}{3} &= 66,64 \end{aligned} \quad (2.2)$$

$$\begin{aligned} \text{Reliability Ratio}_{2016} &= 45 * k1 + 20 * k2 + \frac{10*k3}{3} + 15 * k4 + 5 * k5 + \\ \frac{5*k6}{3} &= 68,02 \end{aligned} \quad (2.3)$$

$$\begin{aligned} \text{Reliability Ratio}_{2015} &= 45 * k1 + 20 * k2 + \frac{10*k3}{3} + 15 * k4 + 5 * k5 + \\ \frac{5*k6}{3} &= 68,42 \end{aligned} \quad (2.4)$$

It is believed that the value of Reliability Ratio higher than 40-50 points indicates a sufficient reliability of the bank, below 25-30 points - about its doubtfulness.

The main drawbacks of the methodology of V. Kromonov include:

- lack of indicators characterizing the quality of the loan portfolio;
- ensuring a high rating of the bank is sufficiently high value of one of the indicators;
- subjective determination of the specific gravity of the coefficients;
- identification of risky assets with employees, since the latter also include some liquid assets (short-term inter-bank loans, deposits placed at the central bank, etc.);
- a premise according to which in an ideal bank risk assets should be equal to the size of equity. In practice, payables exceed their own funds several times;

In practice, domestic banks use the methodology of O. Shirinskaya to evaluate counterparty banks, when calculating limits for transactions in the interbank market. In addition to the indicators of V. Kromonov, in the system of O. Shirinskoy assumes the use of profitability coefficients (ROA and ROE). In the methodology it is proposed to use the share of overdue loans in the bank's loan portfolio. The rating system of the methodology of O. Shirinskaya is characterized by ranking of coefficients and assigning them to individual groups. From the methodology of V. Kromonov were borrowed the following parameters for

calculating the coefficients: shared capital, balance capital, capital vanguard, aggregate liabilities ,instant liabilities . In addition, new ones were added - Revenue, Urgent Deposit Instruments, Corporate Loans, Profitable Assets, Governmental Bonds, Correspondent and current accounts funds. Each coefficient, as well as each group to which they belong, has been assigned its own corrective scales, which is described in [Table 2.4].

Table 2.4

Parametric coefficients of Raiffeisen Bank Aval by Shirinskaya Model during 2015-2018 on the 01.01

| | Formula | Period | | | |
|--|---|--------|------|------|-------|
| Reliability Ratio (weight 15%) | | 2018 | 2017 | 2016 | 2015 |
| RR1 (weight 50%) | $\frac{\text{Total Equity}}{\text{Profitable assets}}$ | 0,19 | 0,21 | 0,22 | 0,17 |
| RR2 (weight 50%) | $\frac{\text{Capital Vanguard}}{\text{Total Equity}}$ | 5,42 | 4,95 | 4,60 | 5,74 |
| Liquidity ratio (weight 35%) | | | | | |
| LR1 (weight 35%) | $\frac{\text{Liquid Assets}}{\text{Instant Liabilities}}$ | 0,34 | 0,42 | 0,54 | 0,60 |
| LR2 (weight 35%) | $\frac{\text{Liquid Assets} + \text{Capital Vanguard}}{\text{Total liabilities}}$ | 1,26 | 1,37 | 1,45 | 1,28 |
| LR3 (weight 30%) | $\frac{\text{Liquid Assets}}{\text{Profitable Assets}}$ | 0,34 | 0,42 | 0,54 | 0,60 |
| Efficiency Ratio (weight 15%) | | | | | |
| ER1 (weight 50%) | $\frac{\text{Capital Vanguard}}{\text{Total Equity}}$ | 5,42 | 4,95 | 4,60 | 5,74 |
| ER2 (weight 50%) | $\frac{\text{Revenue}}{\text{Profitable Assets}}$ | 0,07 | 0,08 | 0,06 | -0,03 |
| Assets quality Ratio (weight 20%) | | | | | |
| AR1 (weight 50%) | $\frac{\text{Urgent Depository instruments} + \text{Total Equity}}{\text{Corporate Loans}}$ | 0,28 | 0,35 | 0,32 | 0,23 |
| AR2 (weight 50%) | $\frac{\text{Governmental Bonds}}{\text{Total Equity}}$ | 0,10 | 0,10 | 0,25 | 0,28 |

Table 2.4 Continuation

| Resource base Ratio (weight 15%) | | | | | |
|----------------------------------|--|------|------|------|------|
| RB1 (weight 50%) | $\frac{\text{Total Equity}}{\text{Total Liabilities}}$ | 0,17 | 0,20 | 0,21 | 0,14 |
| RB2 (weight 50%) | $\frac{\text{Correspondent and current accounts funds}}{\text{Total Liabilities}}$ | 0,05 | 0,05 | 0,07 | 0,07 |

*Selfmade on the basis of: Appendix A; Appendix B

The next step is to calculate the generic coefficient by the formula:

$$\text{Generic Coefficient}_{2018} = 15 * (0,5 * RR1 + 0,5 * RR2) + 35 * (0,35 * LR1 + 0,35 * LR2 + 0,3 * LR3) + 15 * (0,5 * ER1 + 0,5 * ER2) + 20 * (0,5 * AR1 + 0,5 * AR2) + 15 * (0,5 * RB1 + 0,5 * RB2) = 111,98 \quad (2.5)$$

$$\text{Generic Coefficient}_{2017} = 15 * (0,5 * RR1 + 0,5 * RR2) + 35 * (0,35 * LR1 + 0,35 * LR2 + 0,3 * LR3) + 15 * (0,5 * ER1 + 0,5 * ER2) + 20 * (0,5 * AR1 + 0,5 * AR2) + 15 * (0,5 * RB1 + 0,5 * RB2) = 109,06 \quad (2.6)$$

$$\text{Generic Coefficient}_{2016} = 15 * (0,5 * RR1 + 0,5 * RR2) + 35 * (0,35 * LR1 + 0,35 * LR2 + 0,3 * LR3) + 15 * (0,5 * ER1 + 0,5 * ER2) + 20 * (0,5 * AR1 + 0,5 * AR2) + 15 * (0,5 * RB1 + 0,5 * RB2) = 109,02 \quad (2.7)$$

$$\text{Generic Coefficient}_{2015} = 15 * (0,5 * RR1 + 0,5 * RR2) + 35 * (0,35 * LR1 + 0,35 * LR2 + 0,3 * LR3) + 15 * (0,5 * ER1 + 0,5 * ER2) + 20 * (0,5 * AR1 + 0,5 * AR2) + 15 * (0,5 * RB1 + 0,5 * RB2) = 123,32 \quad (2.8)$$

According to O. Shirinsky's method, a single coefficient - the quality of the loan portfolio - is used to cut off. In fact, this is the proportion of overdue loans in the loan portfolio. A bank whose share of overdue debt exceeds 3% of the total amount of loans granted is withdrawn from the rating.

The main drawbacks of the methodology analyzed include:

- accounting method of assessment;
- subjective determination of the specific gravity of the coefficients;
- identification of risk assets with working assets;
- too much weight of liquidity coefficients in the calculation of the generalization coefficient.

The comparative characteristics of the techniques of V. Kronmonov and O. Shirinskaya are given in [Table. 2.5]

Table 2.5

Comparative characteristics of rating methods[86]

| Parameters | V.Kromonov | O.Shirinskaya |
|--|-------------|---------------|
| Transparency of the methodology | transparent | transparent |
| Method of construction | index | index |
| Method of evaluation | expert | accounting |
| Number of metrics | 6 | 11 |
| Availability of valuation | yes | tes |
| The division of coefficients into criterion groups | no | yes |
| Assignment of weighting factors to users | no | no |
| There is a clipping function | yes | yes |
| Method of convolution | additive | additive |
| Form of presentation of the results of the rating | numeric | numeric |

Based on the analysis, we can confidently assert that Raiffeisen Aval Bank satisfies the prototype of the ideal model of Kromonov Bank, having reliability ratio at a level higher than 60, and similarly satisfies the requirements of an ideal Shirinsky bank, the bar of generic coefficient corresponds to the same 60 points.

The construction and analysis of rating assessments of the activities of commercial banks makes it possible to formulate more substantiated conclusions about the characteristics of banking activity. The use of mixed assessment helps to identify areas for further development of banks. The proposed methodology will allow interested persons to make a more objective decision about working with one or another bank. Knowledge of the status of a commercial bank and its place in the

aggregate of banks will ensure that unexpected situations for the users will be avoided and, due to this, saving and increasing their own funds.

PART 3. WAYS OF IMPROVEMENT OF THE BANK'S EFFICIENCY

3.1. Foreign experience in evaluating and managing the performance of the bank

Lately, in foreign and domestic practice much attention has been paid to assessing the financial stability of the banking sector, using systems for assessing the financial stability of banks aimed at identifying characteristics and features of crisis phenomena and the reasons that may lead to the crisis in the future.

Specialists of the Bank of international agreements have proposed the following classification of systems for assessing the financial stability of banks, depending on the forms of research activities of banks and approaches to their basis [40]:

- rating systems of evaluation (CAMELS, PATROL, O.R.A.P.);
- systems of financial coefficients and group analysis (BAKIS);
- integrated risk assessment system (RAST, RATE);
- statistical models of early response systems, such as bankruptcy adaptation-stability models (SAABA);
- micro-prudential and macroprudential analysis (implemented in foreign practice on the basis of stress testing and monitoring of banks) (Table 3.1).

Table 3.1

Systems of risk assessment and early response in foreign countries

| Country, supervisor | Surveillance system | Indicators | System type |
|----------------------------|---------------------|---|----------------------|
| 1 | 2 | 3 | 4 |
| France, Banking Commission | O.R.A.P. | There are 14 indicators that are divided into 5 groups: prudential ratios; balance sheet and off-balance sheet activity ratios; indicators of bad debt, asset quality; market risks; coefficients characterizing revenues. | Remote rating system |

Table 3.1 Continuation

| 1 | 2 | 3 | 4 |
|---|--------|---|---|
| France, Banking Commission | SAABA | It consists of three modules: evaluate the quality of the loan portfolio; analyze the financial status of the bank's equity holders and their ability to support the bank in case of financial difficulties; diagnostics of the quality of bank management, internal audit and liquidity. | An early response system is expected loss |
| Germany, Federal Office for Banking Control | BAKIS | It consists of 47 indicators, of which: 19 - characterize credit risk and solvency; 16 - assess market risk; 2 - refer to market risks; 10 - estimate the profitability of the bank. | System of financial ratios and analysis of individual groups of banks |
| Italy, Bank of Italy | PATROL | 5 components are calculated: capital adequacy; profitability; credit quality; organization; liquidity. | Remote rating system |
| The Netherlands | RAST | RAST contains the following blocks: financial analysis of the bank based on official statistical reporting and audit data; delineation of the banking institution by management divisions and activities; | Integrated risk assessment system |
| United Kingdom, Office of Financial Policy | RATE | The RATE system includes the following blocks: risk assessment; surveillance tools; assessment of the effectiveness of the use of supervisory tools | Integrated system of bank risk assessment |
| USA, Federal Reserve | CAMELS | The CAMELS system assesses risks and defines rating grades for 6 components: capital adequacy (C); asset quality (A); management (M); receipt (E); liquidity (L); | The system of ratings based on field inspections |

**Selfmade on basis:40*

Thus, according to Table 3.1, it can be assumed that the most common rating systems are ballroom or edited methodologies, they allow you to quickly assess the level of financial stability of the bank for interested parties - clients and depositors, for example.

In foreign practice, the most well-known rating systems are the assessment, which results in the assignment of the investigated bank to one or another group. By means of rating, rating systems are divided into accounting, expert and mixed,

by the method of construction are: index and ballroom; by the way of supervision are divided: combined and remot; in terms of transparency - closed and open; by scale - international and national; by type of ownership are divided into state and non-state. Public ratings are closed, that is, official data is used by banking supervisors to prevent bankruptcy of banks and to ensure the financial stability of the entire banking system [38].

The most common rating systems are ball techniques, they allow you to quickly assess the level of financial stability of the bank for interested parties - clients, depositors and others [43].

Promptly diagnose financial problems that may pose a threat to liquidity, solvency and stability of the bank allow for a system of coefficient analysis of homogeneous groups. This analysis is simple, accessible and easy to implement in the practical activities of supervisors and banks [38].

The consistent implementation of a set of procedures (from initial familiarization with financial reporting and the development of anti-crisis measures) aimed at preventing and minimizing the bank's costs in the event of negative events involves a comprehensive system for assessing bank risk [54].

Based on the research of systems of coefficient analysis, rating systems, analysis of homogeneous groups, systems of complex assessment of bank risk, it has been shown that different national rating systems have certain common features, namely: the bank's financial statements are the main information source for the analysis; most systems are used for reliability and risks of banks and to assess the financial stability of the bank, absolute indicators are used as output, characterizing the scale of banks, and some relative indicators, namely such as liquidity, asset quality, profitability, capital adequacy, management and control, market risk, economic and other indicators.

The disadvantage is that they only provide an assessment of the current financial stability of banks for a certain date. Potential problems and risks that may arise in the future are determined by the use of statistical models of early response systems, micro- and macro-prudential analysis [54].

In the practice of Western companies, the use of key performance indicators (KPIs) has long been a familiar reality. KPI - is the indicators by which the effectiveness and effectiveness of the actions of the personnel, processes and functions of the company management are evaluated, the effectiveness of specific production, technological and other activities. Most companies that want to change the effectiveness of their work, use for this purpose a system of various meters and indicators. This allows you to assess the pace of business growth and identify possible deviations from the plan.

Foreign and domestic experience with various measurement systems shows that there are three main difficulties for their viability:

- the amount of work required for regular and timely data collection;
- presentation of data in a convenient and easily understandable form;
- maintaining the interest of management of this system.

Thus, using computer programs and using a kind of "toolbox" of the enterprise, financial managers can regularly make "snapshots" and in a timely manner track the key performance indicators of the company. Top management pays little attention to everything that is poorly selected and unclear. The system of key indicators shows managers what is really important for business, and does not fill them with unnecessary data.

Analysis of domestic and foreign sources can combine all valuation tools into three region methodological approaches: accounting, the main criterion of which is profitability of the bank, which is based on the use of methods of financial ratios; economic or industrial, the criterion of which is the optimality of the activity (including the level of profit, costs and risk), based on the economic-mathematical modeling [Table 3.2]

Table 3.2

Key performance indicators of bank performance*

| Formula | Economic concept | Countries which are using listed KPI | | |
|---|--|--------------------------------------|----|------|
| | | EU | US | CI S |
| $ROA = \frac{\text{Net Profit}}{\text{Average Total Assets}}$ | The return on assets calculation is used to analyze a company's ability to generate profit from its assets | ✓ | ✓ | ✓ |
| $ROE = \frac{\text{Net Income}}{\text{Shareholder's Equity}}$ | Return on equity measures a profitability by revealing how much profit generates with the money invested | ✓ | ✓ | ✓ |
| $ROS = \frac{\text{EBITDA}}{\text{Sales}}$ | Return on sales (ROS) is a ratio used to evaluate a company's operational efficiency; ROS is also known as a firm's operating profit margin | ✓ | ✓ | ✓ |
| $CAR = \frac{T1\ Capital + T2\ Capital}{\text{Risk Weighted Assets}}$ | The capital adequacy ratio (CAR) is a measure of a bank's capital. It is expressed as a percentage of a bank's risk weighted credit exposures | ✓ | ✓ | ✓ |
| $NIRS = \frac{\text{Interest income} - \text{Interest expenses}}{\text{Total assets}}$ | The net interest rate spread is the difference between the average yield a financial institution receives from loans, along with other interest-accruing activities; and the average rate it pays on deposits and borrowings | ✓ | ✓ | ✗ |
| $\text{Revenue per employee} = \frac{\text{Total Revenue}}{\text{Total number of Employees}}$ | Revenue per employee – the rate presented as a ratio of assets to a number of employees (job positions) | ✓ | ✓ | ✗ |
| $\text{Efficiency Ratio} = \frac{\text{Noninterest Expenses}}{\text{Net Revenue}}$ | A bank's success at managing expenses is gauged by the efficiency ratio – lower is better, ideally you're looking for ratios under 60% | ✓ | ✓ | ✗ |
| $NPL = \frac{\text{Nonperforming Loans}}{\text{Total Loans}}$ | NPL ratio measures how lenders perform his lendings | ✓ | ✓ | ✗ |
| $NCO = \frac{\text{Net Charge} - \text{Offs}}{\text{Total Loans}}$ | NCO ratio measures what happens after loans actually default, triggering a bank's obligation to charge the loans off against its capital | ✓ | ✗ | ✗ |
| $LtD = \frac{\text{Total Loans}}{\text{Total Deposits}}$ | Loan-to-Deposit Ratio: This metric expresses a bank's loans as a percent of deposits. In doing so, its purpose is to measure liquidity | ✓ | ✓ | ✓ |

Table 3.2 Continuation

| | | | | | |
|---------------|---|---|---|---|---|
| Capital Ratio | $T1 \text{ Capital Ratio} = \frac{T1 \text{ Common Capital}}{Risk - Weighted Assets}$ | Tier 1 Common Capital Ratio: Regulators assess a bank's strength first by looking at the size and composition of its capital base. The most important metric in this regard is the tier 1 common capital ratio, which compares a bank's core equity capital to its risk-weighted assets | ✓ | ✓ | ✓ |
| LTV | $LTV = \frac{Mortgage \text{ Amount}}{Appraised \text{ Value of Property}}$ | The loan-to-value ratio is a lending risk assessment ratio that financial institutions examine before approving a mortgage. | ✓ | ✓ | ✗ |
| EBITDA | $EBITDA = (Revenue) - (Expenses \text{ Excluding Interest, Depreciation \& Amortization})$ | Measures revenue after expenses are considered and interest, taxes, depreciation, and amortization | ✓ | ✓ | ✓ |
| NOPAT | $NOPAT = Operating \text{ Income} * (1 - Tax \text{ Rate})$ | Net operating profit after tax (NOPAT) is a company's potential cash earnings if its capitalization were unleveraged – that is, if it had no debt | ✓ | ✓ | ✓ |
| CAPM | $\text{Expected Return} = R_f + \beta * \text{Market Risk Premium}$ <p>Rf = Riskfree Rate β = Beta relative to market portfolio</p> | CAPM describes the relationship between systematic risk and expected return for assets, particularly stocks | ✓ | ✓ | ✓ |

*Selfmade on the basis of: 72;73;74;9;10

3.2. The Effect of Banking Effectiveness at the Bank Place in the Banking System

The largest profit in the year 2017 was received by JSC "Raiffeisen Bank Aval", PJSC "SITIBANK", JSC "OTP Bank", PJSC "CREDIT AGRICOLE BANK", PJSC "ING Bank Ukraine", PJSC "OSCHADBANK", PJSC "PUMB", PJSC "PROCREDIT BANK", AB "UKRGAZBANK", PJSC "KREDOBANK" [34].

Table 3.3

Rating of the largest profitable banks as of January 1, 2018 (ths UAH)

| Bank | Profit after tax, ths. UAH | Total assets, ths. UAH | Total liabilities, ths. UAH | Total equity, ths. UAH |
|-----------------------------|----------------------------|------------------------|-----------------------------|------------------------|
| Raiffeisen Bank Aval | 3820643,75 | 55999734,51 | 45927656,97 | 10072077,54 |
| PJSC "SITIBANK" | 1437499,31 | 19459670,36 | 17360499,50 | 2099170,86 |
| PJSC "OTP BANK" | 962009,82 | 24831464,20 | 22271469,66 | 2559994,54 |
| PJSC "CREDIT AGRICOLE BANK" | 807786,18 | 29895180,30 | 27419546,43 | 2475633,86 |
| PJSC "ING Bank Ukraine" | 791102,93 | 17358490,67 | 13620497,95 | 3737992,72 |
| PJSC "OSCHADBANK" | 468168,75 | 210099278,11 | 195166730,20 | 14932547,91 |
| PJSC "PUMB" | 367010,51 | 44552607,75 | 40504312,33 | 4048295,42 |
| PJSC "PROCREDIT BANK" | 300647,89 | 12117205,40 | 10854579,65 | 1262625,75 |
| PJSC "UKRGAZBANK" | 293681,41 | 53681057,71 | 48691710,56 | 4989347,14 |
| PJSC "KREDOBANK" | 263676,33 | 11004497,62 | 9916716,67 | 1087780,95 |

**Selfmade on basis: 84*

A decisive role in the activities of commercial banks is played by deposit, credit and settlement operations, which the bank carries out in aggregate, so let's consider more detailed operations of banks.

In the activities of the bank important moments are not only the formation of resources, but also their effective placement, so one of the main areas of banking analysis is an analysis of its active operations.

Table 3.4

Dynamics of assets of commercial banks of Ukraine in 2015-2017 on the 01.01 (mln. UAH) [36]

| № | Name of bank | 2015 | 2016 | 2017 | Growth, % |
|---|------------------|--------|--------|--------|-----------|
| 1 | Raiffeisen Aval | 46 859 | 51 239 | 55 999 | 19,5 |
| 2 | «UkrGasbank» | 21 027 | 41 555 | 53 681 | 155,3 |
| 3 | «Sberbank» | 46 740 | 51 806 | 48 355 | 3,5 |
| 4 | «UkrSibbank» | 26 336 | 43 418 | 45 367 | 72,3 |
| 5 | «PUMB» | 34 795 | 37 644 | 44 552 | 28 |
| 6 | «Ukrsotsbank» | 48 258 | 54 219 | 41 800 | -13,4 |
| 7 | «Alfa Bank» | 36 693 | 42 363 | 38 953 | 6,2 |
| 8 | «Prominvestbank» | 52 656 | 41 652 | 34 323 | -34,8 |

Table 3.4 Continuation

| | | | | | |
|----|-------------------|--------|--------|--------|------|
| 9 | "Crédit Agricole" | 21 079 | 23 238 | 29 895 | 41,8 |
| 10 | "OTP Bank" | 21 505 | 21 154 | 24 831 | 15,5 |

As we see from tabl. 3.2, in recent years the assets of these banks have increased insignificantly.

The rapid increase in assets is observed only in Ukrgasbank (155.3%) and UkrSibbank (72.3%). One of the key factors in the volatility of assets in the period under study was the dynamics of the national currency, along with the withdrawal of part of commercial banks from the market, the movement of client funds and the reduction of loan portfolios. The high impact of the fluctuation of the national currency rate on the volume of assets is attributable to a significant share of foreign currency assets in the total volume.

One of the important functions of a commercial bank is mediation in the loan that they carry out through redistribution of funds temporarily released in the process of circulation of enterprises' funds and cash income of individuals.

Table 3.5

**Dynamics of volumes of loans granted to legal entities and individuals
by Ukrainian banks for the period 2015-2017 on the 01.01 (mln. UAH)**

| № | Name of bank | Loans to individuals | | | Rate of growth % | Loans to legal entities | | | Rate of growth % |
|---|-------------------|----------------------|-------|-------|---------------------|-------------------------|-------|-------|---------------------|
| | | 2015 | 2016 | 2017 | | 2015 | 2016 | 2017 | |
| 1 | «Raiffeisen Aval» | 9257 | 6145 | 3558 | -61,6 | 22050 | 18538 | 25552 | 15,9 |
| 2 | «Ukrgasbank» | 1425 | 1341 | 1269 | -10,9 | 9148 | 9743 | 19776 | 116,2 |
| 3 | Sberbank | 727 | 516 | 314 | -56,8 | 49514 | 47773 | 38637 | -22,0 |
| 4 | «UkrSibbank» | 9150 | 6095 | 4050 | -55,7 | 10390 | 13888 | 15144 | 45,8 |
| 5 | «PUMB» | 5041 | 2973 | 3651 | -27,6 | 25103 | 23515 | 19723 | -21,4 |
| 6 | «Ukrsotsbank» | 19462 | 18033 | 10062 | -48,3 | 21778 | 20083 | 8532 | -60,8 |
| 7 | «Alfa Bank» | 4368 | 4001 | 5643 | 29,2 | 25389 | 24397 | 20791 | -18,1 |
| 8 | «Prominvestbank» | 76 | 49 | 31 | -58,7 | 51503 | 32515 | 19804 | -61,5 |
| 9 | "Crédit Agricole" | 1406 | 1323 | 2140 | 52,2 | 14570 | 13274 | 13610 | -6,6 |

Table 3.5 Continuation

| | | | | | | | | | |
|----|------------|-------|-------|-------|-------|--------|--------|--------|-------|
| 10 | "OTP Bank" | 7028 | 4581 | 5441 | -22,6 | 11801 | 9427 | 9421 | -20,2 |
| | Total | 52899 | 45057 | 36159 | - | 216143 | 180638 | 190990 | - |

**Selfmade on basis 77*

The volume of loans granted to legal entities and individuals by a group of analyzed banks of Ukraine from 2015 to 2017 are presented in Table 3.3. It should be noted that in 2015 the amount of loans granted to individuals for analysis by banks amounted to UAH 52.9 billion, and at the beginning of 2017 it decreased to UAH 36.2 billion, that is, the volume of loans granted for 2 years has decreased by 16.7 billion UAH.

A similar situation is observed for loans granted to legal entities. Between 2015 and 2017 there was a decrease of loans granted to legal entities by UAH 25.2 billion. Consequently, there is a tendency to reduce the volume of client's loan portfolio. Since legal entities were constantly borrowed, even during the crisis, the reduction in the total volume of the loan portfolio was due to a decrease in the amount of loans granted to individuals (there is a decrease in the indicator for all banks analyzed).

This is due to the sharp deterioration of the index of economic sentiment and a tighter monetary policy due to the National Bank's efforts to maintain the exchange rate. When banks faced a severe liquidity squeeze, they raised interest rates on loans and set limits on new lending volumes. Among the main factors hindering the restoration of lending, there is a high level of uncertainty about further economic development and a limited range of reliable borrowers.

However, banks now predict an increase in demand for loans in the segment of individuals. This is due to insignificant volumes of lending during the crisis period and, as a result, a sufficient amount of deferred demand. The population needs credit funds on a regular basis, but given the fact that lending during the crisis was minimal, a deferred demand for loans was formed.

The sources of banking resource formation are accumulation of funds of legal entities and individuals, as well as the creation of own capital.

For a complete definition of the situation in the financial market, it is necessary to consider the structure of the banks' data resources (Table 3.6).

Table 3.6

Structure of liabilities and equity of commercial banks of Ukraine in 2015-2017 (mln. UAH)

| № | Bank | Liabilities | | | Rate of growth % | Equity | | | Rate of growth % |
|----|-------------------|-------------|-------|-------|------------------|--------|--------|-------|------------------|
| | | 2015 | 2016 | 2017 | | 2015 | 2016 | 2017 | |
| 1 | «Raiffeisen Aval» | 40711 | 44971 | 45928 | 12,8 | 6148 | 6268 | 10072 | 63,8 |
| 2 | «UkrGasbank» | 19457 | 37263 | 48692 | 150,3 | 1571 | 4293 | 4989 | 217,6 |
| 3 | «Sberbank» | 42836 | 49539 | 44633 | 4,2 | 3904 | 2268 | 3722 | -4,7 |
| 4 | «UkrSibbank» | 24556 | 41615 | 41263 | 68,0 | 1781 | 1803 | 4104 | 130,4 |
| 5 | «PUMB» | 30662 | 33977 | 40504 | 32,1 | 4777 | 3667 | 4048 | -15,3 |
| 6 | «Ukrsotsbank» | 42020 | 40482 | 28983 | -31,0 | 6239 | 13737 | 12817 | 105,4 |
| 7 | «Alfa Bank» | 33184 | 39739 | 35642 | 7,4 | 3510 | 2624 | 3312 | -5,6 |
| 8 | «Prominvestbank» | 46581 | 53922 | 29174 | -37,4 | 6076 | -12269 | 5149 | -15,3 |
| 9 | "Crédit Agricole" | 19666 | 21156 | 27420 | 39,4 | 1414 | 2082 | 2472 | 74,8 |
| 10 | "OTP Bank" | 20130 | 19508 | 22271 | 10,6 | 1375 | 1646 | 2560 | 86,2 |

**Selfmade on basis: 77*

According to the data, the main source of bank resources is the obligation of banks to depositors and creditors, whose share on average amounts to 85-88% of the total volume of resources, while the rest (12-14,6%) falls on own capital. You can also observe the size of the commitments of various commercial banks of Ukraine from 2015 to 2017. In most banks, liabilities grow, and an increase in the amount of liabilities of the bank indicates the growth of the deposit base of the bank, that is, despite all the crisis, banks capable of maintaining public confidence.

Table 3.7

Removed banks from the market during 2015-2017

| Name of bank | Deadline |
|-----------------------------------|---------------------|
| Banks with interim administration | |
| PJSC "BANK "UNISON " | from April 28, 2016 |

Table 3.7 Continuation

| | |
|---|---------------------------------------|
| PJSC "RODOVID BANK" | from February 26, 2016 |
| PJSC "FINANCIAL INITIATIVE" | from June 24, 2015 |
| Eliminated banks | |
| PJSC "COMMERCIAL BANK "GEFEST" | October 2, 2017 - October 1, 2018 |
| JSCB "NOVYY" | September 1, 2017 - August 31, 2019 |
| PJSC "DIAMANTBANK" | June 24, 2017 - June 23, 2019 |
| PJSC "FINBANK" | April 28, 2017 - April 27, 2019 |
| PJSC "VECTOR BANK" | March 22, 2017 - March 21, 2019 |
| PJSC "NC BANK" | March 9, 2017 - March 8, 2019 |
| PJSC "PLATINUM BANK" and others like that | February 24, 2017 - February 23, 2019 |
| Banks whose depositors made payments | |
| JSCB "BAZIS" | — |
| PJSC "BANK "CAPITAL" | — |
| PJSC "SOZKOM BANK" | — |
| PJSC "Volodymyrsky" | — |
| LLC "DialogBank" and others like that | — |
| Banks sold to investors | |
| PJSC "ASTRA BANK" | — |
| Banks sold to the state | |
| PJSC "PRIVATBANK" | — |

From the data presented in the table. 3.5 it is evident that the elimination of a very large number of commercial banks takes place. In 2017, UAH 10.64 billion was repaid. of the total amount of accepted claims of creditors. The largest banks of the Delta Bank PJSC (amounting to UAH 53.74 bln.), Bank «Finance and Credit» (for UAH 30.86 bln.) Became the largest claims specified in 2016. , PJSC "WBR" (by UAH 6.54 billion), PJSC "Khreshchatyk" (at UAH 6.15 billion).

The number of banks closed by the state until January 2017 amounted to 148 names. As a result of the bankruptcy of institutions millions of Ukrainians lose their accumulation, and this story is not repeated for the first time - since the 1990's to this day. Every time a banking crisis is striking for businesses and people who worked with bankrupt banks. At the same time, there is no information about the investigation and the results of the work of law enforcement agencies, which would have been able to return money at least once, often simply stolen from bankrupt banks. In Ukraine, such a banking system has been formed, which allows people to be left without saving many times.

A mortal blow to the Ukrainian banking system was caused by the

leadership of the NBU within the framework of a program of so-called banking sector clearing.

As we see, the number of solvent commercial banks in Ukraine is gradually decreasing. During the period of the program "Cleaning the banking sector" stopped working 77 commercial banks, lost 35 thousand bank employees. In closed banks from depositors there were deposits in the amount of 163 billion UAH. (approximately 6.5 billion dollars), of which 111 billion UAH. from individuals and 52 billion UAH. in business.

Now, to support my words with the facts, I give a diagram showing the Ukrainian bank ranking profitability. Raiffeisen Bank Aval remains the market leader after the state monopoly - PrivatBank by the end of 2017. Using the knowledge and experience of the parent group - Raiffeisen provides quality services at a reasonable price, therefore, it is not surprising to take first place [Figure 3.1].

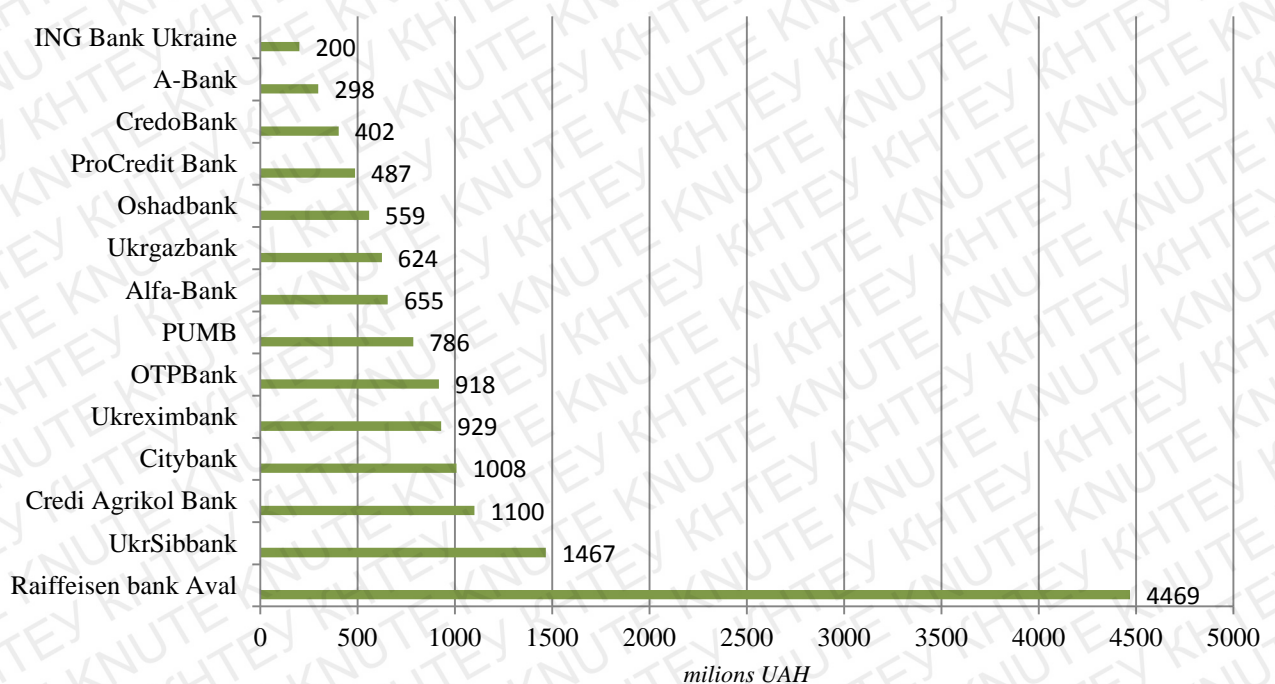


Figure 3.1 The most profitable Ukrainian banks in 2017 on the 01.01 (mln UAH) [77]

The title of the most profitable bank holds Raiffeisen Bank Aval for the third consecutive quarter. According to the results of July-September its "plus" has

already exceeded 4 billion UAH. In five of the most profitable were Ukreximbank, UkrSibbank, Credi Agricole and Citybank.

After the NBU stress tests, it turned out that the banks of Ukraine need an increase in capital by more than UAH 100 billion. The level of problem loans in the banking system exceeded 50%. Banks faced a course problem - they are forced to return urgent foreign currency deposits, while the solvency of clients for foreign currency loans is rapidly declining. As a result, banks are forced to raise rates on foreign currency loans, go to the interbank market or raise funds from the parent structures.

We also have the opportunity to see the most problematic banks of the system or its holes. If you do not pay attention to PrivatBank, then we see that there are a number of other banks with a fairly high level of losses. They usually relate to the risks that the bank is facing, trying to improve its liquidity. When these risks come out of control - the institution has such sad results.[Figure 3.2]

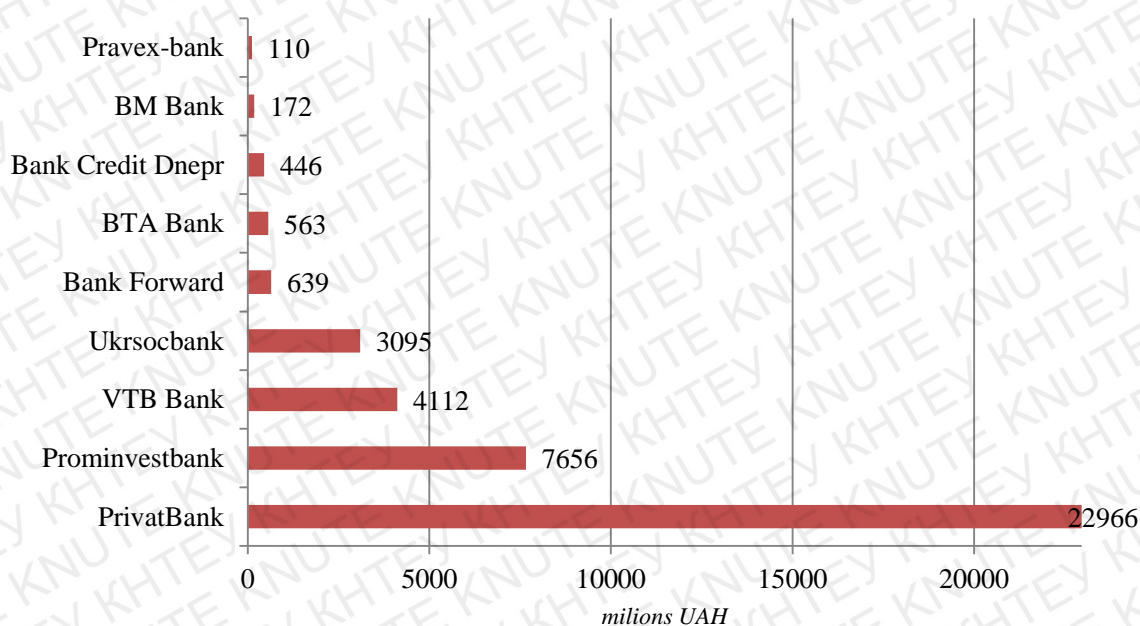


Figure 3.2 The most unprofitable Ukrainian banks in 2017 on the 01.01 (mln. UAH) [77]

As we see, PrivatBank, due to changes in its form of ownership, gave the greatest "losses" among the whole banking system, but only because of the transfer of all its assets to the state. The other banks, as we see, have an operating minus and are under the close control of the National Bank. Unfortunately, in 2017,

Privatbank had to continue its work to assess the fair value of those assets that the state received in 2016. Large gas stations, tank farms, the famous "Bukovel" were transferred to the state at an overestimated cost. On the basis of an international auditor, an estimate was made of the fair value of these assets. And this fair valuation led to a loss-making activity at the end of 2017 in PrivatBank

The management of the NBU has put forward the fact that the number of banks has been decreasing as a special achievement, as a result of which Ukrainian banking system density indicators seem to be approaching either to the world average, or even to world standards.

Thus, despite all the crisis phenomena that have affected the banking system of Ukraine, commercial banks continue to be financial intermediaries in the national economy.

3.3. Directions and tools for increasing the efficiency of the bank

To ensure the stable functioning and development of the banking system, covering risks in the activities of banks, increasing competitiveness, the level of capitalization of banks remains insufficient. An increase in the level of capitalization of Ukrainian banks should be a major component of their growth strategy. One of the ways to increase the level of capitalization of banks is the processes of their reorganization through mergers and acquisitions. The use of foreign capital is also a factor in increasing the capitalization of the banking system.

Each bank has bad loans in its portfolio. However, the amount of such overdue debts and the rate of its growth are important. Banking institutions should make every effort to ensure that the percentage of non-repayment of loans is as low as possible.

To minimize the risk of non-repayment of bank loans by borrowers, banks must: detail the stages of the credit process; to comply with the requirements of the National Bank of Ukraine when assessing the solvency of legal entities and to develop and improve their own methods of analysis of creditworthiness of

individuals; to develop various types of loan agreements depending on the type of loan; not to approach formally when structuring the loan and when concluding loan agreements with borrowers; to actively use interest rate policy as a method of encouraging borrowers to receive loans, in particular, to reduce interest rates on loans in production; carry out constant credit monitoring, conduct preliminary, current and subsequent control of the fulfillment by the borrowers of the terms of the loan agreement; analyze and manage the factors of the emergence of problem loans through their restructuring, in particular currency loans; to increase the qualification of bank lenders to improve the quality and culture of customer lending.

In the future, the main ways of improving performance indicators should be progressive structural changes in assets, capital, liabilities of banks, increase of return on assets by reducing the share of unearned and problem assets, as well as decrease in the cost of borrowed and borrowed funds, expense activities, primarily due to the reduction of administrative expenses, etc.

The main reason for a small share of household savings in banking institutions is not only the low level of confidence in the domestic economy. The current level of remuneration and social protection of Ukrainian citizens, their low purchasing power are those factors that restrain the development of monetary savings of the population, and consequently, the development of production, the restoration of labor, and the resolution of the most acute socio-economic problems.

Analyzing the state of the banking services market in terms of attracting funds from individuals, the dynamics of cash deposits over the past few years indicates an increase in citizens' confidence in banks and the interest of bankers in increasing their share of borrowed funds in their assets.

The banking services market for individuals is a sensitive indicator of the economy as a whole, and fluctuations in the population's savings in bank accounts reflect the changes taking place in the country's economy: changes in the demographic situation, income and price policies, peculiarities of development and satisfaction of needs, social structure of the population, etc.

The inadequacy of raising funds is also due to the fact that the Ukrainian population due to the weak development of the financial market has a limited choice of instruments to capitalize its hryvnia savings. Bank deposits are by far the most affordable of them. But this instrument of the population enjoys only sufficient confidence in banks. In its absence, which is to date, most of the hryvnia savings (about UAH 25-35 billion (including currency)) are kept in cash, or are broken down into several deposits to reduce the risk of loss from bankruptcy of banks.

Such a situation requires a comprehensive solution to the problem and a new approach at the macro level, where the tax policy in the field of taxation of citizens' incomes and the relevant legislative changes, as well as at the internal banking level, should be revised, where changes should take place in the direction of simplification and increase of the availability of transactions for individuals, as well as the development of schemes of effective cooperation with each client - the individual and the use of funds with the maximum possible efficiency at a minimum level of risk of these operations.

Increasing trust in banks is an urgent task of national importance, delaying its solution may impede the development of the country's economy in the near future. Therefore, it is urgent to take measures: first of all, banks themselves should act, creating new more favorable offerings for investors; to establish legislative and judicial protection of the rights and interests of bankers, which, in essence, indicates an underestimation of the role of banks and even a certain disrespect for them by the state authorities; also, in order to increase confidence in the bank, it is necessary to establish a system of guaranteeing deposits of the population. Taking into account the need to increase the level of reliability, financial stability and competitiveness of banks in the domestic and international markets, measures should be taken to:

- increasing the effectiveness of control over the activities of banks, achieving full compliance with the Basel Principles of Effective Banking Supervision, which envisages the improvement of the current legislation and

normative legal acts of the NBU;

- introduction of the assessment of banking activity on a consolidated basis and taking into account risks; strengthening control over owners of substantial participation and changes in ownership structure;

- increase in the level of capitalization of banks, by attracting new shareholders, increase of the reserve fund, performance, activation of bank merger processes, more intensive application of the bank reorganization procedure by joining and merging small and financially unstable banks;

- ensuring the participation of all banks in the single information system "Register of borrowers", which will allow to reduce the credit risk;

- optimization of the structure of capital, assets and liabilities, based on the tasks of ensuring the financial stability of banks and their positive impact on the development of the real economy;

- increasing profitability of banking operations, focusing on lending and servicing of the real economy and lowering costs by increasing the productivity and computerization of banking operations, reducing unreasonable costs;

- prejudice of doubtful banking operations by banks by identifying clients and their operations; strengthening the fight against money laundering, in particular by means of proper control over the existence of regulations, procedures and procedures for combating money laundering by the banks, improvement of Ukraine's current legislation on issues lending, strengthening the protection of the rights and interests of creditors, increasing the responsibility of participants in contractual relations for improper performance of their obligations, unreliable data on the financial condition of the borrower;

- ensuring the credibility of creditors and depositors to banks by increasing stability, stability and competitiveness in the world market of the banking system of Ukraine, capable of maximally and qualitatively meeting the needs of the economy and the population in loans and other modern banking services.

Taking into account all of the above, it would be advisable to consider the components of profit growth of JSC "Raiffeisen Bank Aval":

1. Growth of a group of assets that bring interest income. JSC "Raiffeisen Bank Aval" has to attract more borrowers and increase the credit potential by increasing the amount of attracted resources.
2. Financial planning acts as one of the reserves for increasing profits. Financial planning allows you to forecast income and expenses of the JSC "Raiffeisen Bank Aval" for the future period.
3. Increase of own funds, which will increase the bank's resources and investment potential.
4. Rational and effective placement of funds of JSC "Raiffeisen Bank Aval" in order to ensure its financial stability in the future.
5. Formation of insurance reserves, which will increase the reliability and stability of PJSC "Raiffeisen Bank Aval", as well as reduce possible financial risks.
6. Study of credit risks for taking further measures to reduce, minimize and eliminate them.
7. Improvement of the level of professionalism of employees, since the further effective development of JSC "Raiffeisen Bank Aval" depends on the skill, competent construction of management structures.
8. Improvement of the marketing policy of JSC "Raiffeisen Bank Aval", the main task of which is to determine the needs of customers and ensure conditions that will facilitate the attraction of new customers, expand the scope of banking services.
9. Expanding the forms of lending to small and medium-sized businesses with the involvement of non-bank financial institutions; broad territorial coverage of the population by lending services, including with the use of cumulative investment schemes - pension accounts, payment accounts for studying and purchasing housing, etc.
10. Attraction of loans of international financial organizations, individual states and economic entities, revenues from privatization activities, funds in foreign accounts.

CONCLUSIONS

Thus, the efficiency of banking is a multidimensional issue that covers both the qualitative and quantitative aspects of the banking institution's activities. Therefore, the definition of the content of effective banking activity is a rather complex and controversial process that requires consideration of many factors, parameters, connections both internal and external, depending on the subjective beliefs of a particular scientist in defining this category and its evaluation.

The following definition of efficiency as the efficiency of banking activity can be defined - this is a quantitative and qualitative characteristic, which reflects the ability to achieve a certain goal with the optimal ratio of the spent resources and the results obtained, taking into account all factors of influence and alternative scenarios of banking business.

Studying foreign and domestic experience in evaluating the effectiveness of the bank allowed to develop methodological principles for its evaluation. Our proposed steps for evaluating efficiency are, firstly, a way to systematize the research carried out, and secondly, serve as a universal and flexible tool for analyzing the activities of banks for different subjects and the purpose of the study; thirdly, serve as a tool for further improvement of the theoretical and methodological basis for assessing the effectiveness of banks.

Based on the research of systems of coefficient analysis, rating systems, analysis of homogeneous groups, systems of complex assessment of bank risk, it has been shown that different national rating systems have certain common features, namely: the bank's financial statements are the main information source for the analysis; most systems are used for reliability and risks of banks and to assess the financial stability of the bank, absolute indicators are used as output, characterizing the scale of banks, and some relative indicators, namely such as liquidity, asset quality, profitability, capital adequacy, management and control, market risk, economic and other indicators.

The disadvantage is that they only provide an assessment of the current

financial stability of banks for a certain date. Potential problems and risks that may arise in the future are determined by the use of statistical models of early response systems, micro- and macro-prudential analysis.

A decisive role in the activities of commercial banks is played by deposit, credit and settlement operations, which the bank carries out in aggregate, so let's consider more detailed operations of banks.

In the activities of the bank important moments are not only the formation of resources, but also their effective placement, so one of the main areas of banking analysis is an analysis of its active operations.

Despite all the crisis phenomena that have affected the banking system of Ukraine, commercial banks continue to be financial intermediaries in the national economy.

A banking crisis can not be overcome only by banking measures, credit, and monetary instruments, because its root cause is hidden in the economy. That is why it is necessary to raise the question of the economy and banks, and not only the banking problem. The interaction between the state authorities, the National Bank of Ukraine, and banking institutions should be based on further development of the domestic banking system. A more in-depth analysis of the formation, development and current state of banking institutions, their problems and solutions in the conditions of the financial and economic crisis and European integration will contribute to the reforming and further development of a reliable and efficient banking system in Ukraine.

Refinancing loans are virtually the only source for banks to balance their liquidity and fulfill their obligations to clients, because in a crisis of confidence, the interbank lending market in Ukraine practically does not function. That is, the main reasons for the decline liquidity of the banking system of Ukraine during the studied period is: mass outflow deposits, ineffective administrative ones solution, increase distrust of the bank systems, devaluation of the national monetary units, growth of problem loans and ineffective asset and liability management individual banking institutions. In general, the level of liquidity of the banking system

Ukraine in 2015 tends to growth and stabilization, indicating a gradual increase exit from a systemic liquidity crisis. And the continuation of the practice of the National Bank Ukraine on the withdrawal of insolvent market banks will help improve the whole the banking system of Ukraine.

Increasing trust in banks is an urgent task of national importance, delaying its solution may impede the development of the country's economy in the near future. Therefore, it is urgent to take measures: first of all, banks themselves should act, creating new more favorable offerings for investors; to establish legislative and judicial protection of the rights and interests of bankers, which, in essence, indicates an underestimation of the role of banks and even a certain disrespect for them by the state authorities; also, in order to increase confidence in the bank, it is necessary to establish a system of guaranteeing deposits of the population

During the period of Ukraine's integration into an authoritative financial community, it is important that such key representatives of the country's financial sector as banks can be easily evaluated and analyzed by any average person, even those who have not dealt with the domestic market so far. It is important to understand that the assessment and analysis of the state of only individual leading banks can already add up a rather sober and clear picture of the banking services market in the country. Taking into account the fact that the Ukrainian market, like any other, has its own specifics, the NBU needs to coordinate and unify with the ECB and the IMF a uniform method of evaluating the efficiency of banks, adjusting for all the problems and aspects of our state. This will be the next logical step after the transparency of the banking sector, as well as the improvement of an already adequate and competitive environment in the banking sector.

In the future, the main ways of improving performance indicators should be progressive structural changes in assets, capital, liabilities of banks, increase of return on assets by reducing the share of unearned and problem assets, as well as decrease in the cost of borrowed and borrowed funds, expense activities, primarily due to the reduction of administrative expenses, etc.

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Appendix A

Consolidated IFRS statement of financial position of Raiffeisen Bank Aval

CONSOLIDATED IFRS STATEMENT OF FINANCIAL POSITION as at 31 December 2017

(in thousands of Ukrainian hryvnia)

| | Notes | 2017 | 2016 |
|--|-------|-------------------|-------------------|
| Assets | | | |
| Cash and cash equivalents | 7 | 10,297,228 | 10,292,755 |
| Trading securities | 8 | 1,127,477 | 808,776 |
| Amounts due from credit institutions | 10 | 8,032,433 | 10,168,968 |
| Loans to customers | 11 | 37,348,888 | 27,923,628 |
| Assets held for sale | 12 | 56,170 | 55,275 |
| Investment securities: | 13 | | |
| - designated at fair value through profit or loss | | 5,925,271 | 3,380,399 |
| - available-for-sale | | - | 1,172 |
| Investment property | 14 | 151,860 | 160,627 |
| Property and equipment | 15 | 2,037,966 | 1,972,630 |
| Intangible assets | 16 | 412,083 | 387,258 |
| Current income tax assets | | 545,070 | 386,153 |
| Deferred income tax assets | 17 | 31,643 | 743,261 |
| Other assets | 19 | 1,050,930 | 1,084,439 |
| Total assets | | 67,016,816 | 57,364,637 |
| Liabilities | | | |
| Amounts due to credit institutions | 20 | 2,533,468 | 3,296,105 |
| Amounts due to customers | 21 | 52,272,275 | 44,103,262 |
| Current income tax liabilities | | 709 | 9 |
| Provisions | 18 | 80,050 | 53,418 |
| Other liabilities | 19 | 1,289,761 | 892,168 |
| Total liabilities | | 56,176,263 | 48,343,962 |
| Equity | | | |
| Share capital | 24 | 6,154,516 | 6,154,516 |
| Additional paid-in capital | | 3,033,097 | 3,033,097 |
| Revaluation reserves | 24 | 889,941 | 937,165 |
| Reserve and other funds | | 509,771 | 318,739 |
| Retained earnings/(accumulated deficit) | | 300,560 | (1,246,779) |
| Total equity attributable to shareholders of the Bank | | 10,887,885 | 9,196,738 |
| Non-controlling interest | | (47,332) | (176,063) |
| Total equity | | 10,840,553 | 9,020,675 |
| Total equity and liabilities | | 67,016,816 | 57,364,637 |

Signed and authorized for release on behalf of the Management Board of the Bank

Volodymyr Lazarenko
Chairman of the Board

24 April 2018



Ludmila Makarenko
Chief Accountant

Appendix B

Consolidated IFRS income statement of Raiffeisen Bank Aval

CONSOLIDATED IFRS INCOME STATEMENT
 for the year ended 31 December 2017

(in thousands of Ukrainian hryvnias)

| | Notes | 2017 | 2016 |
|---|---------|--------------------|--------------------|
| Interest income | | | |
| Loans to customers | | 5,557,232 | 5,159,406 |
| Amounts due from credit institutions | | 901,481 | 1,127,146 |
| Securities | | 693,630 | 425,174 |
| | | 7,152,343 | 6,711,726 |
| Interest expense | | | |
| Amounts due to customers | | (1,249,346) | (1,495,127) |
| Amounts due to credit institutions | | (210,515) | (276,332) |
| Subordinated debt | | - | (99,290) |
| Amounts due to the National Bank of Ukraine | | - | (984) |
| | | (1,459,861) | (1,871,733) |
| Net interest income | | 5,692,482 | 4,839,993 |
| Allowance for loan impairment | 7,10,11 | 1,682,001 | 28,515 |
| Net interest income after allowance for loan impairment | | 7,374,483 | 4,868,508 |
| Fee and commission income | | 3,849,766 | 2,934,552 |
| Fee and commission expense | | (1,505,339) | (1,037,828) |
| Fees and commissions, net | 26 | 2,344,427 | 1,896,724 |
| Net gains/(losses) from foreign currencies: | | | |
| - dealing | | 309,665 | 351,478 |
| - exchange differences | | (63,815) | (221,894) |
| Net gains/(losses) from securities: | | | |
| Trading securities | | (2,916) | 58,926 |
| Investment securities designated at fair value through profit or loss | | 40,048 | 396,557 |
| Other income | 27 | 197,776 | 211,561 |
| Non-interest income | | 480,758 | 796,628 |
| Personnel expenses | 28 | (1,668,669) | (1,537,178) |
| Depreciation and amortisation | 15,16 | (415,402) | (330,828) |
| Other administrative and operating expenses | 28 | (1,529,720) | (1,510,245) |
| Change of allowances for impairment of other assets and provisions | 18 | (61,616) | (63,332) |
| Impairment loss from assets held for sale | | (618) | - |
| Revaluation of investment property | 14 | - | (33,754) |
| Non-interest expense | | (3,676,025) | (3,475,337) |
| Profit before income tax | | 6,523,643 | 4,086,523 |
| Income tax expense | 17 | (1,204,622) | (369,098) |
| Profit for the year | | 5,319,021 | 3,717,425 |
| Attributable to: | | | |
| - shareholders of the Bank | | 5,327,168 | 3,752,880 |
| - non-controlling interest | | (8,147) | (35,455) |
| | | 5,319,021 | 3,717,425 |
| Earnings per share | | | |
| Basic and diluted earnings per ordinary share (in hryvnias) | 24 | 0.0866 | 0.0610 |

Appendix C

**Consolidated IFRS statement of comprehensive income of Raiffeisen
Bank Aval**

CONSOLIDATED IFRS STATEMENT OF COMPREHENSIVE INCOME
for the year ended 31 December 2017

(in thousands of Ukrainian hryvnia)

| | <i>Notes</i> | 2017 | 2016 |
|--|--------------|------------------|------------------|
| Profit for the year | | 5,319,021 | 3,717,425 |
| Other comprehensive income | | | |
| <i>Items that will not be reclassified to profit or loss:</i> | | | |
| Revaluation of property | 24 | (7,816) | (3,332) |
| Impairment of property | 15,24 | - | (16,943) |
| Income tax relating to revaluation and impairment of property | 17,24 | 1,407 | 3,649 |
| Total items that will not be reclassified to profit or loss | | (6,409) | (16,626) |
| Other comprehensive loss for the year, net of tax | | (6,409) | (16,626) |
| Total comprehensive income for the year | | 5,312,612 | 3,700,799 |
| Attributable to: | | | |
| - shareholders of the Bank | | 5,320,759 | 3,736,254 |
| - non-controlling interest | | (8,147) | (35,455) |
| | | 5,312,612 | 3,700,799 |

Appendix D

Income statement of Raiffeisen Bank International AG

Other comprehensive income and total comprehensive income

| in € thousand | Total | | Group equity | | Non-controlling interest | |
|--|-----------|----------|--------------|----------|--------------------------|----------|
| | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| Profit/loss after tax | 1,246,009 | 573,615 | 1,116,056 | 463,104 | 129,953 | 110,512 |
| Items which are not reclassified to profit and loss | (135,962) | 2,028 | (135,962) | 2,028 | 0 | 0 |
| Remeasurements of defined benefit plans | 6,252 | 2,704 | 6,252 | 2,704 | 0 | 0 |
| Changes in equity of companies valued at equity which are not reclassified to profit and loss | (2,360) | 0 | (2,360) | 0 | 0 | 0 |
| Fair value changes of financial liabilities at fair value through profit or loss attributable to changes in their default risk | (139,643) | 0 | (139,643) | 0 | 0 | 0 |
| Deferred taxes on items which are not reclassified to profit and loss | (211) | (676) | (211) | (676) | 0 | 0 |
| Items that may be reclassified subsequently to profit or loss | (61,045) | 187,598 | (62,545) | 201,682 | 1,500 | (14,085) |
| Exchange differences | (70,048) | 291,039 | (70,915) | 299,257 | 867 | (8,218) |
| Capital hedge | (6,042) | (43,445) | (6,042) | (43,445) | 0 | 0 |
| Net gains (losses) on derivatives hedging fluctuating cash flows | 11,164 | 5,788 | 9,515 | 6,449 | 1,648 | (661) |
| Changes in equity of companies valued at equity | (6,819) | 0 | (6,819) | 0 | 0 | 0 |
| Net gains (losses) on financial assets available-for-sale | (717) | (77,321) | (87) | (70,428) | (630) | (6,893) |
| Deferred taxes on income and expenses directly recognized in equity | 11,417 | 11,536 | 11,803 | 9,849 | (386) | 1,687 |
| Other comprehensive income | (197,007) | 189,626 | (198,507) | 203,710 | 1,500 | (14,085) |
| Total comprehensive income | 1,049,002 | 763,241 | 917,549 | 666,814 | 131,453 | 96,427 |

Income statement

| in € thousand | Notes | 2017 | 2016 |
|--|-------|-------------|-------------|
| Interest income | | 4,256,985 | 4,043,862 |
| Current income associates | | 60,420 | 0 |
| Interest expenses | | (1,109,687) | (1,108,433) |
| Net interest income | [2] | 3,207,718 | 2,935,429 |
| Net provisioning for impairment losses | [3] | (286,899) | (754,387) |
| Net interest income after provisioning | | 2,920,819 | 2,181,042 |
| Fee and commission income | | 2,468,447 | 1,997,477 |
| Fee and commission expense | | (749,576) | (500,633) |
| Net fee and commission income | [4] | 1,718,872 | 1,496,844 |
| Net trading income | [5] | 244,350 | 214,586 |
| Net income from derivatives and liabilities | [6] | (40,921) | (188,752) |
| Net income from financial investments | [7] | (83,133) | 152,940 |
| General administrative expenses | [8] | (3,104,213) | (2,848,228) |
| Other net operating income | [9] | (42,070) | (141,749) |
| Net income from disposal of group assets | [10] | (1,640) | 18,914 |
| Profit/loss before tax | | 1,612,063 | 885,598 |
| Income taxes | [11] | (366,054) | (311,982) |
| Profit/loss after tax | | 1,246,009 | 573,615 |
| Profit attributable to non-controlling interests | [33] | (129,953) | (110,512) |
| Consolidated profit/loss | | 1,116,056 | 463,104 |

Appendix E

Statement of financial position of Raiffeisen Bank International AG

Statement of financial position

| Assets in € thousand | Notes | 2017 | 2016 |
|---|--------------|--------------------|--------------------|
| Cash reserve | [13, 34] | 13,329,782 | 12,242,415 |
| Loans and advances to banks | [14, 34, 49] | 14,358,246 | 9,900,012 |
| Loans and advances to customers | [15, 34, 49] | 81,232,353 | 70,514,116 |
| Impairment losses on loans and advances | [16, 34] | (3,102,348) | (4,955,132) |
| Trading assets | [17, 34, 49] | 3,941,757 | 4,986,462 |
| Derivatives | [18, 34, 49] | 936,710 | 1,428,639 |
| Financial investments | [19, 34, 49] | 19,627,884 | 14,639,012 |
| Investments in associates | [20, 34, 49] | 728,945 | 0 |
| Intangible fixed assets | [21, 23, 34] | 720,935 | 598,402 |
| Tangible fixed assets | [22, 23, 34] | 1,540,194 | 1,393,358 |
| Other assets | [24, 34, 49] | 1,831,881 | 1,116,561 |
| Total assets | | 135,146,339 | 111,863,845 |

| Equity and liabilities in € thousand | Notes | 2017 | 2016 |
|---|--------------|--------------------|--------------------|
| Deposits from banks | [25, 34, 49] | 22,291,431 | 12,816,475 |
| Deposits from customers | [26, 34, 49] | 84,831,440 | 71,538,226 |
| Debt securities issued | [27, 34, 49] | 5,885,137 | 6,645,127 |
| Provisions for liabilities and charges | [28, 34, 49] | 1,010,410 | 756,252 |
| Trading liabilities | [29, 34, 49] | 4,256,546 | 5,119,743 |
| Derivatives | [30, 34, 49] | 362,439 | 786,949 |
| Other liabilities | [31, 34, 49] | 1,479,610 | 765,251 |
| Subordinated capital | [32, 34, 49] | 3,787,977 | 4,203,693 |
| Equity | [33, 34] | 11,241,350 | 9,232,130 |
| Consolidated equity | | 8,820,946 | 8,187,672 |
| Consolidated profit/loss | | 1,116,056 | 463,104 |
| Non-controlling interests | | 659,732 | 581,353 |
| Additional tier 1 | | 644,615 | 0 |
| Total equity and liabilities | | 135,146,339 | 111,863,845 |

Appendix F

DBS Bank Group balance scorecard weighting

| Traditional KPIs 50% | |
|----------------------------------|---|
| <i>Shareholders</i> | <p>Aim: Achieve sustainable growth</p> <p>Main KPIs:</p> <ol style="list-style-type: none"> 1. Income growth 2. Manage expenses 3. Returns 4. Portfolio risk 5. Controls and compliance |
| <i>Customer</i> | <p>Aim: Position DBS as Bank of Choice</p> <p>Main KPIs:</p> <ol style="list-style-type: none"> 1. Increase wallet share 2. Customer satisfaction |
| <i>Employee</i> | <p>Aim: Position DBS as Employer of Choice</p> <p>Main KPIs:</p> <ol style="list-style-type: none"> 1. Employee engagement 2. People development |
| Strategic priorities 50 % | |
| <i>Geographies</i> | <p>Aims:</p> <ol style="list-style-type: none"> 1. Entrench leadership in Singapore 2. Reposition Hong Kong 3. Rebalance geographic mix of our business |
| <i>Regional businesses</i> | <p>Aims:</p> <ol style="list-style-type: none"> 1. Build a leading Small and Medium Enterprise (SME) Banking business 2. Strengthen wealth proposition 3. Build out transaction banking and treasury customer business |
| <i>Enablers</i> | <p>Aims:</p> <ol style="list-style-type: none"> 1. Place customers at the heart of the banking experience 2. Focus on management processes, people and culture 3. Strengthen technology and infrastructure platform |

Appendix G

Organizational structure of IAS Raiffeisen Bank Aval

