CHAPTER 1. THEORETICAL ASPECTS OF BANK INCOME AND COST MANAGEMENT

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1.1. The essence of the concept of income and expenses of a commercial bank

The key goal of any business entity is to obtain maximum profit. The financial result of activity is a fundamentally important economic indicator, which is of interest to both owners and investors, depositors, workers, partners, and even more so – regulatory bodies and other persons. Determining the financial result (profit or loss) of an activity is directly related to the recognition and accounting of income and expenses. Therefore, the study of the essence, classification and accounting of income and expenses of a commercial bank play a major role in the objective determination and are reflected in the accounting of its financial results [34].

It is worth emphasizing once again that profit maximization is not an inclusion for banking. It is precisely the profit that ensures effective work in the further development of this financial institution. Profit is the main source of income for shareholders and owners of a commercial bank, as well as the foundation for the bank's further activities, ensuring the banking institution's competitiveness in the financial services market of Ukraine, constant renewal and rotation of financial resources, improvement of services and opportunities for the implementation of innovative financial technologies.

The majority of domestic scientists explain the definition of "bank profit" from the standpoint of accounting methods.The concept of defining profit as an economic category in banking can be expressed as follows: profit is the owner's income expressed in currency from investment capital, wages and risk from engaging in financial and economic activities, that is, total income minus total costs in the process of carrying out this activity. The role of profit is to increase the bank's equity and resources to contribute to its internal source of active operational growth. At the same time, unlike other internal sources of capital formation, profit is a source of constant reproduction. Several profit indicators are used in banking practice: economy, balance sheet, profit before taxation, net and retained earnings. In a general interpretation, the profit that remains available for use in the bank depends on three key components: income, expenses and tax deductions paid to the budget. Comparing the growth rates of these components allows you to correctly assess which of the factors had a positive or negative impact on profit [49].

The composition of income and expenses is determined by the financial nature of the bank, which determines the sequence of the bank's profit formation. The bank's income is the basis of the development of its activity, which ensures the following tasks:

First of all, a significant part of the bank's income is a source of payment of expenses related to the implementation of banking activities. Implementation of this task ensures self-sufficiency of banking activity.

In addition, part of the bank's income is a source of net profit. At the expense of profit, banks form funds and reserves for their further development and risk reduction. By implementing this task, the bank will achieve long-term growth and ensure self-financing of development for some time.

The bank's income and expenses, their nature and type must be considered from an economic and accounting point of view. According to the economic method, income is the funds that the bank disposes of as a result of its activities.

According to the information in the "Encyclopedia of Banking", the income of any bank is formulated as "aggregate income from all active activities of the banking institution" [48]. The disadvantage of this interpretation is that the authors of the encyclopedia define the concept of "income" through the category "aggregate income", which does not fully reveal the semasiological essence and sources of the bank's income.

According to the Law of Ukraine On Banks and Banking Activities, bank revenues include those directly related to banking activities [18; 44].

The banking institution's sources of income are various types of its activities. At the same time, incomes are divided into bank, non-bank operating and contingency (Figure 1.1).

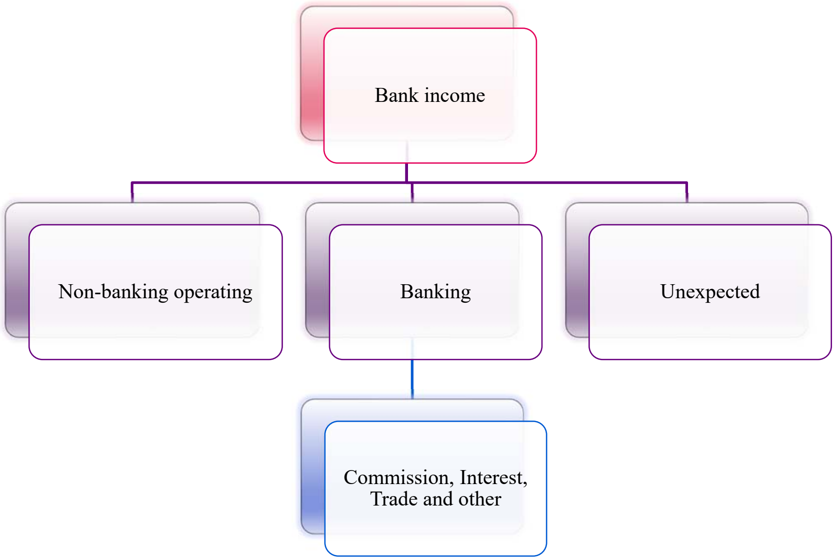

Figure 1.1. The structure of commercial bank income

Source: compiled on the basis of [8; 43; 26]

Non-bank business income – income that is not related to the main activity of the bank, but guarantees its performance (income from the sale of fixed assets – rental activity), income from the implementation of certain non-banking services, namely: audit services, software, non-financial consulting and other typesof business. Other non-bank operating income is divided into: transactions with bank branches and other institutions; other non-bank operating income [8; 43; 26].

Therefore, bank income includes interest, commission, trading and other characteristics, which are presented in detail in Table 1.1.

It is necessary to specify income from transactions in securities, which may include discounts and coupons, but in fact interest income on debt securities includes only interest accrued after the purchase of the securities. Interest income also includes income from term deposits placed with other banks. The value of the interest income component changes every year

Table 1.1

Characteristics of bank income

Definition		Kinds
1		2
Interest income	Interest income– operating income, equivalents or amounts that the bank owes to the bank for the use of credit funds, the amount of which is calculated in proportion to time using the effective interest rate and is a compensatory risk for the bank for the loan taken.	They distinguish: – by funds placed in the NBU; – for funds placed in other banks; – for loans to individuals; – for loans to business entities; – on loans to general state administration bodies; – for operations with branches and other institutions of the bank; – by securities; – other interest income; – by maturity criteria, resident/non-resident and by financial instrument (deposits, loans or securities).
Commission income	Commission income – operating income from the provision of services, the amount of which is calculated or fixed in proportion to the amount of the asset or liability.	– for transactions with banks and bank clients; – for operations with branches and other institutions of the bank; – for loans and deposits; – on securities with a clearly fixed profit; – income in the form of amortization of discount on securities. The category of commission includes: – commission income for guarantee placement of loans from them. other creditors and for transactions with securities; – commission income from operations for settlement and cash service and servicing of credit accounts, for storing valuables and carrying out transactions with securities; – commission income for operations with foreign currency; – for the purchase or sale of coins and precious metals for third parties; – other commission income from operations determined by the Law on Banks and Banking Activity.

(End of Table 1.1)

1	2	3
Trading income	Profit (loss) from financial transactions(trading income) – the result of the purchase and sale of various financial instruments, including transactions with securities, bank metals and foreign currency.	<u>Trading income includes:</u> – net profits from activities on the market of banking metals and the foreign exchange market; – net income from transactions with securities for sale; – net income from continuous trading in other financial instruments, which is carried out at the initiative of the bank and is not the execution of customer orders.
Others	Other operating income and expenses- these are incomes and expenses from those operations that are not related to investment or financial activities. In addition, those that are not included in the above-mentioned group of operating income and expenses.	<u>Other income includes:</u> – income from securities with contingent income (dividends from shares held as an object of trade and capital investments); – dividend income; – for transactions with branches and other institutions of a commercial bank; – other banking operating profits.

Source: compiled on the basis of [24; 43]

depending on changes in interest rates and credit demand, but loan income is almost always important to every bank. Interest and fees equal to them must be calculated at least once a month on a regular basis, as a rule, on the last day of the month, regardless of the frequency of calculation, which is determined by the contract with the counterparty. Having the absolute amount of interest income, the bank's management can more accurately plan the execution of specific active operations, rationally change the structure of assets, more effectively organize the work of the bank's structural units. Structural analysis of commercial bank profitability indicators allows to draw conclusions about the causes of difficulties in the field of banking income and to identify problems in aspects of its activity that require increased focus [24; 43].

Interest and related commission income make up the main part of earnings. Interest for the use of the bank's credit resources has the largest specific weight in their income. Next after income from loans by definition are income from investment securities, interest (percentage) income from interbank loans (without any security or under the security of government securities. Also, the bank's income is adjusted to increase reserves and the amount of unforeseen income [16].

However, the task of maximizing bank profits is considered more as the main focus of the banking institution's management, but the field of profitability management is not autonomous. That is, decisions on profit maximization should be made in accordance with the relationship with acceptable risks. In recent times, banks have sought to make non-interest income a key source of future banking income. There is an opinion that this will be able to improve the final performance characteristics of commercial banks, more reliably protect banks from fluctuations in interest rates and diversify sources of income [23].

Effective profitability management is based on the latest methods of analysis and distribution of bank profit, taking into account the interests of all owners, shareholders and, directly, strategic directions of commercial bank development. The amount of profit of a banking institution depends on its profit, which in turn depends in advance on the volume of credit investments and investments of a commercial bank, the amount of interest on loans and the size and structure of the bank's assets.

Thus, income is an increase in economic benefits during the reporting period in the form of an increase in assets or a decrease in liabilities, which is a factor in the increase of capital and is not a contribution from shareholders [43].

Based on the analysis of the income structure, it is possible to draw a number of certain conclusions. Actually, the increase in the specific weight of commission income indicates that the bank has difficulties in obtaining the main interest income and its management is probably trying to increase its income from paid services and commissions, thanks to the provision of non-traditional services to clients. An increase in non-interest income contributes to an increase in the income of a commercial bank without an increase in the balance sheet. However, as a rule, paid services are labor-intensive and, in addition, require the appropriate qualification level of employees, so operational costs will also increase. Therefore, it is quite possible that a bank whose level of income from paid services is higher than average will spend more on wages. A sharp increase in income from paid services may indicate that.

Another fundamental factor of the bank's activity, which has an important positive or negative impact on profit, is the bank's expenses.

*Bank expenses*is an economic category that reflects monetary and material resources used in the process of formation, implementation and implementation by a banking institution of its products and services, as well as all other additional financial resources for their maintenance and support [17].

Actually, the bank's expenses are the total amount of monetary resources that the bank spends in the process of its activity in relation to attracting funds and other types of activities. Like income, bank expenses are divided into two main groups – interest or variable and non-interest or relatively constant [10]. However, in some classifications there are other costs.

Therefore, it is interest expenses that constitute the largest item of expenses of a banking institution (Figure 1.2) [23; 24; 25].

It is worth noting that all interest expenses of a commercial bank are interest paid to clients on their deposits and interest payments on funds raised on the money market (including securities of its own issue). Whereas,

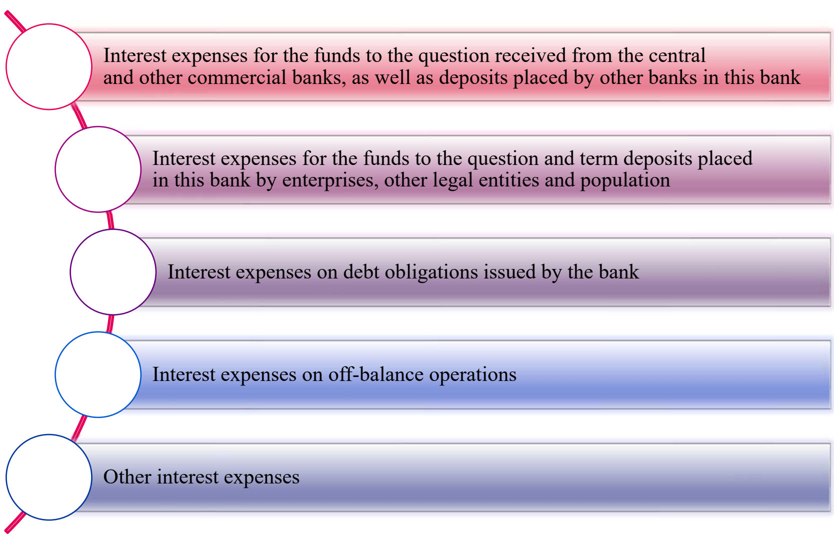

Figure 1.2. Types of bank interest expenses

Source: compiled by the author based on [23; 24; 25] non-interest expenses of a commercial bank are expenses that are not related to the payment of interest from the financial resources attracted by the bank. They consist of commission costs, the formation of special bank reserves and general administrative costs [16; 17].

Commission -expenses paid to other banks for settlement and cash and credit services as financial intermediaries [16].

*Costs for the formation of special reserves of a commercial bank*is the cost of covering all possible losses from the decline in the usefulness of the banking institution's assets and the write-off of bad assets [16].

General administrative expenses -itoperational costs associated with ensuring banking activity. They include personnel costs (for example, basic and additional wages; financial assistance and other costs); depreciation of non-current assets; expenses for maintenance and operation of fixed assets and intangible assets (for example, repairs or insurance), payment of taxes and other mandatory payments, except for income tax, and other expenses aimed at servicing and managing a commercial bank [16].

Commercial banks reasonably aim to reduce costs and use the latest methods of their control, such as budgeting, which acts as a system of interconnected financial balance sheets (plans) of a commercial bank [16; 25].

Thus, the key sources of profit formation of a commercial bank are banking income (interest, commission, trading and other), non-banking and unforeseen income of the bank, and the task of the profit management system of banking activity is to prevent a decrease in the profitability of the banking system, which is the material focus of its further functioning and its rating on the domestic banking market.

1.2. The bank's income and expense management system

Income and expense management is a key tool in the management system of a banking institution.

Banking is a practice in the field of finance and credit and belongs to the non-production environment. In addition, in the process of its implementation, the formation of new value does not occur, but thanks to banking institutions, there is a movement of monetary resources between different counterparties. Without creating new value and providing special financial (banking) services, commercial banks build their activities on the principles of comparing in monetary terms their own costs and results of operations and covering their obligations to creditors and depositorsat any time after the date that established by the contract and before the state for the payment of taxes and all other mandatory payments. Therefore, the level of organization of the bank's finances depends on its ability to timely and fully fulfill the accepted obligations under all types of contracts, ultimately achieve the main goal of maximizing value. Commercial banks at their own discretion build a management system in accordance with the pre-accepted concept of development and mission, however, at the same time, state supervision of banking activities has been implemented in Ukraine, which qualitatively ensures control over the solvency of bank formations, the reliability of their reporting and compliance with current legislation.

Unlike industrial entities, where value is created with the help of fixed assets, while in banking, value is formed by the bank's personnel and reputation. Taking this into account, banking activity should be considered, on the one hand, as an independent economic and entrepreneurial activity that was created with the aim of obtaining maximum profit and can be an object of interest for investors, on the other hand, as a special economic institution that, at the same time, can provide banking services and sell temporarily free cash. Actually, taking into account the above, it is worth highlighting the peculiarities of the functioning and specificity of financial relations of banks.

Management of the bank's income and expenses is implemented with the help of a financial mechanism. Therefore, the interaction between organizational structures, enterprises and management bodies is embodied with the help of an organizational and economic mechanism (Figure 1.3).

The outlined features of the finances of commercial banks determine the need for the development of a specific mechanism that will be aimed at ensuring the high-quality functioning of the income and expense management system of the banking institution. In addition, their flexibility in special conditions of influence of environmental factors. Therefore, the management mechanism must simultaneously solve both economic and organizational issues. The economic component of the mechanism should ensure the achievement of given proportions and ratios between existing resources and financial needs, which will reveal high growth rates of cash

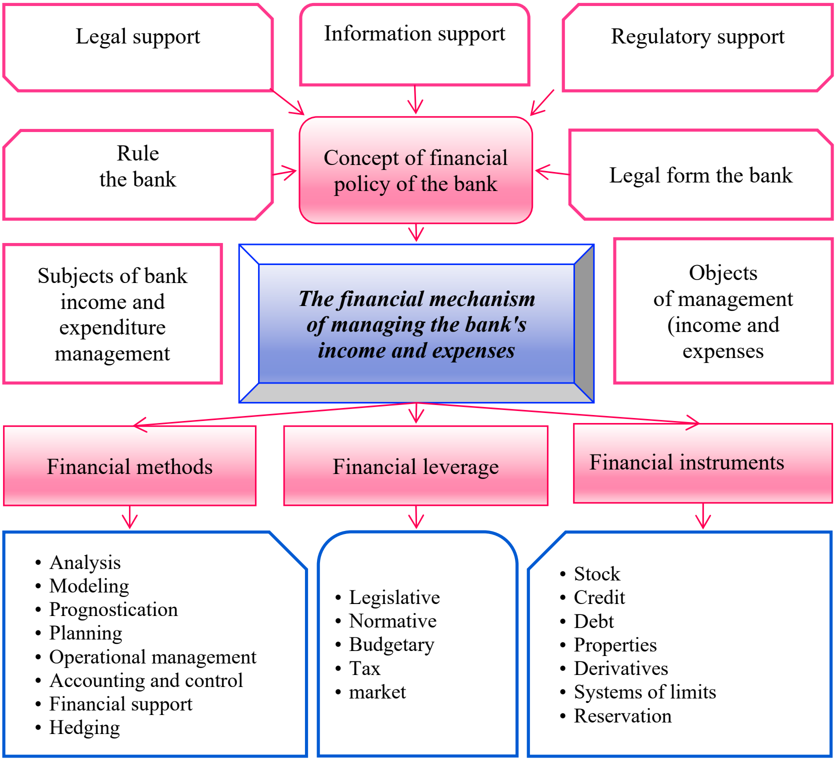

Figure 1.3. Scheme of the financial mechanism for managing income and expenses of a commercial bank

Source: [17]

flows on invested capital along with the financial stability of the company. The financial mechanism in accordance with the management of income and expenses of a commercial bank is a key component of the economic mechanism, because it is the foundation of indicative planning, the basis of pricing and actually changes in financial legislation. That is why the financial mechanism for managing the bank's income and expenses is a system of economic relations that is formed under the influence of the financial policy of a commercial bank, legal, economic, regulatory and informational factors and ensures the functioning of the operational activities of a domestic bank through the use of appropriate forms, methods, tools and levers Returning to Figure 1.3, it is worth noting that it presents a generalized algorithm of the mechanism for managing income and expenses of a banking institution. In the conditions of martial law and a high level of uncertainty of risks in the banking sector,

The main goal of any banking institution is to maximize profit under the condition of its stable condition and continuous and long-term functioning in the market. Having received a profit or a loss, that is, the final financial result, the bank has the opportunity to evaluate the sum of all types of its activities (active and passive operations).

Many exogenous and endogenous factors affect the amount of banks' profits (Figure 1.4).

Profit, expenses and income are a reflection of a set of objective and subjective factors that affect the activity of a banking institution: client base, availability of sufficient premises to serve its clients, location, level of competition, level of relations with state bodies and some of their representatives , the level of development of financial markets, the quality and efficiency of bank management, including the promptness of making

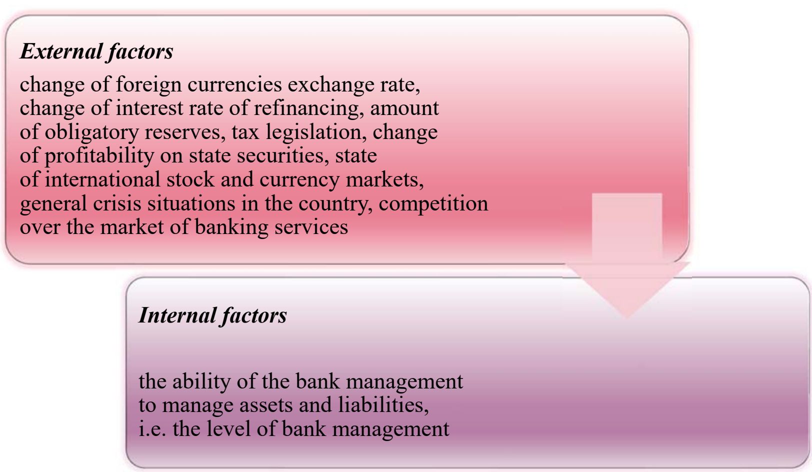

Figure 1.4. External and internal factors affecting the amount of profit

Source: compiled by the author based on [49] important management decisions, the availability of external sources of auxiliary financial resources and infusions, the use of innovative financial technologies, the presence of a network of branches, the level of control over current expenses of a commercial bank, the level of setting up intrabank analysis and control, etc.

The mechanism for managing the financial results of a banking institution consists of a system of interrelated tools and methods directly related to the formation, use and distribution of the banking institution's profit, and functions with the main goal of improving profit performance and increasing the efficiency of commercial bank activity [50].

Methods of assessing and regulating the level of profit of a banking institution are shown in Table 1.2.

Actually, taking into account the demonstrated methods, it can be concluded that the mechanism of analysis and detailed assessment of the bank's profitability includes an extensive system of analyzes that directly consist of its formation, use and distribution and is carried out in order to increase the results of profitability and the efficiency of the commercial bank's economic activity.

The bank's profit management is based on a fairly complex multifunctional mechanism consisting of a number of elements characterized by the following properties:

– introduction of units in the organization related to this process;

– planning of items of profit, expenses and income of a commercial bank;

– observance of methods of assessing the level of profitability of banks;

– using methods of daily profit regulation.

Income and expense management is manifested as a process of developing and making management decisions from all aspects of their formation and use in a banking institution. Taking into account the content of the bank's income and expenses management algorithm and the requirements put forward in relation to them, goals and objectives are formed.

The key goal of the bank's cost management is the minimization of unproductive costs, precisely those costs that do not lead to an increase in profit. By reducing non-productive expenses, the banking institution will be able to quickly form a reserve of funds, as a result, direct them to their own development and the introduction of the latest technologies in their activities. However, the work practice of most domestic commercial banks, which differ both in terms of volume and range of operations, makes it possible to note a stable trend of outpacing the growth rates of expenses in relation to the growth rates of incomes.

Table 1.2

Ways of assessing and regulating the bank's profit

Structural analysis of income
The purpose of this analysis is to identify the basic types of income in order to assess their reliability and the possibility of preservation in the future. Income is divided into interest, commission and other income. According to the level of stability, groups of stable and unstable incomes are distinguished
Structural analysis of costs
Similar to income analysis. Interest, commission and other costs are allocated on the basis of the price form in the banking markets of resources and services
Structural analysis of sources of profit (financial result)
The financial result of the activity means the loss or profit of the bank. The quantitative display of the financial result can be determined by net or balance profit (loss). The structural analysis of the financial result is based on the identification of its basic sources
Evaluation of activity results based on the system of financial ratios
Coefficients of interest margin, levels of non-interest income and expenses, ratio of non-interest and interest margin, stable income per ruble of assets, share of dividends in income, expenses per ruble of assets, indicators of profitability of actinon and equity capital, profit per employee
Factor analysis of profitability and profitability indicators of the bank
Allows you to detail the reasons for its change, and on this basis to specify management decision-making. It is used to determine the main factor of change in the profitability indicator. For this purpose, the method of substitution is used, which allows you to determine with which element of the numerator or denominator of the coefficient is connected in more than all positive or negative trend of its change.

Source: compiled by the author based on [6; 28]

The main task of cost management is the creation of an effective mechanism that ensures the optimization of the costs of a commercial bank, bringing them into line with the defined. profitability This management mechanism should become the foundation for ensuring the profitable operation of all banking divisions in a specific period of time and at the same time reduce the banking institution's dependence on the market situation.

Noting that the basic share of profit is the net income from active operations, it is worth paying more attention specifically to the management of income from the bank's presented operations. Interest rates on active operations must adhere to the following ratios: first of all, the interest rate is calculated using the method of wide application of short-term liabilities, in addition, the amount of resources of various types is assigned to a specific type of asset. The next stage is the calculation of the weighted average cost of resources that were previously used for the purpose of funding active operations. The last stage is the calculation of the margin for all active operations, the determination of the difference between the bank's profit from active operations and the cost of the resources that fund this operation.

In the process of implementing these stages, it is possible to see where exactly there is a weak point in the functioning of a commercial bank, that is, why it cannot reach the planned level of profitability. And only after the completion of such an analysis should an adjustment be made to the structure of the bank's resources. Based on this, it is necessary to focus on the management of bank expenses, which is aimed specifically at reducing the cost of operations carried out in a commercial bank, because they are the main part of the effective management of banking operations.

It is worth noting that in the operational management of the bank's income and expenses, a rather strong emphasis is placed on the tariff policy, because commission income depends on the correctly formed price for banking services. The tariff committee of a banking institution must analyze the ratio of the cost of services, and therefore study the market competitiveness of the current tariffs.

The basic functions of the tariff committee include:

– development of basic principles of tariff policy;

– calculation of the cost of services;

– analysis of competitor banks' tariffs;

– analysis of the bank from the point of view of the profitability of banking services with alternative variants of the tariff system.

Depending on the operational goals of management, a commercial bank must choose a method of tariff policy, for example: pricing based on the level of current market prices; a multi-factor pricing method based on customer relationships; pricing for market penetration; pricing method based on full costs (average costs together with profit); pricing based on break-even analysis.

In fact, the effective tariff policy developed by the banking institution is the key directions that should be followed when making management decisions on setting certain tariffs for its services both for all bank clients and for their individual categories.

Thus, we can conclude that with operational management of income and expenses, a commercial bank can effectively direct its actions to achieve the main tasks in the short term in the shortest period of time.

The profitability of the banking business is one of the most qualitative and effective indicators for determining the results of the financial activity of banks. In addition, it is the material basis for further activities and the creation of ratings on the domestic banking market.

The main task of bank management is to prevent a decline in the profitability indicator, because this will be significantly reflected in such indicators as capital adequacy and the level of competitiveness of a commercial bank in the market [59, p. 112].

Management of the profitability index of banks is an element that guarantees an increase in the final financial result of the activity of a banking institution, growth of capitalization and direct profitability of organizations of the banking sector of the economy.

1.3. The main indicators of the bank's profitability

Profitability determines the efficiency of the bank's work, because achieving a satisfactory level of profit allows you to enrich the capital, forms the basis of life activity and development of the banking institution, thus ensures an acceptable level of dividend payments to shareholders. Profitability or profitability of a banking institution is the total positive result of its economic, financial and commercial activities [28]. Operating expenses are covered by the profit received. The generated profit determines the level of dividends, the development of passive and active operations and capital growth. As mentioned above, important conditions for ensuring the profitability of a banking institution are the optimization of the structure of income and expenses, the identification of trends in the profitability of credit operations, the determination of the minimum permissible interest margin, planning of the minimum income margin for qualitative forecasting of the targeted level of interest for passive and active operations. The profitability of banking directly depends on maintaining liquidity, managing and minimizing risks [28].

In domestic practice, as well as in international practice, the efficiency of a banking institution is determined using a number of indicators: spread, net interest (interest) margin, other operating income and labor productivity. Such an analysis of the bank's activity is usually carried out by comparing it with the plan and in dynamics [11; 30; 58].

A key place in the analysis of the financial results of banking institutions is the study of the volume and expediency of the received income, because they are the main conditions for the formation of profit. In the analytical process, it is recommended to use the economic proof grouping of income and expense analytical accounts of a commercial bank, vertical and horizontal analysis of the financial results of the institution, evaluation of dynamic series of profitability indicators byquarters and years, calculation and evaluation of the degree of dependence of profit on various factors, comparison of the obtained results with recommended in domestic and international practice [23].

An important remark is that the profit is one of the key indicators among the analyzed indicators, but it cannot always show sufficiently objective evidence about the degree of effectiveness of all financial and economic activities of a commercial bank, about the ability of the monetary resources invested or placed by it to be profitable in the future. Therefore, the effectiveness of the financial and economic activity of a banking institution is better determined by digital data on profitability or profitability. These indicators are obtained by the ratio of profit to the sources of its receipt. Moreover, the economic essence of these relative indicators is that they form bank profit earned from each hryvnia of invested funds by the bank.

The analysis of activity efficiency is carried out using the indicators shown in Figure 1.5.

Modern international practice uses many indicators characterizing the profitability of commercial banks, such as the Dupont model, ROE, ROA and CIR [57].

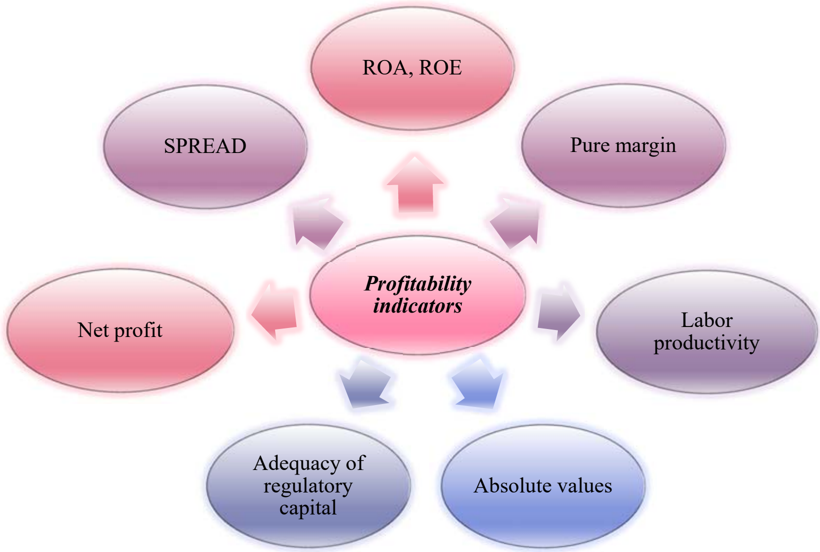

Figure 1.5. Indicators of the bank's profitability level

Source: compiled by the author based on sources [47–50]

On the other hand, experts discuss the adequacy of existing performance indicators, as world experience shows that the change in the conditions of conducting banking business requires a review of traditional methods of assessing the effectiveness of banking activity in modern conditions.

It is worth noting thatThe DuPont model was developed back in the distant 20s of the 20th century. Its purpose was to determine the influence of four factors – profit margin and operating margin, capital multiplier, return on assets, on the return on capital. Accordingly, in the opinion of leading specialists, it has a limited character when analyzing efficiency in the modern, very volatile and dynamic conditions of the banking business. After all, the increased risks in the external environment of banking activity require the application and development of assessment tools that would be able to take into account the main determinants of efficiency and monitor their dynamics with the aim of minimizing and avoiding crisis situations, especially for domestic commercial banks that are in extremely difficult conditions of existence [47–50].

Return on capital, abbreviated as ROE, is considered to be the most common summarizing indicators of profitability at the moment, which can be used to determine the level of return on shareholders' cash resources and return on assets (ROA), which, in turn, is a component of ROE and reflects the effectiveness of the internal management policy of a banking institution income and expenditure positions. Some banking auditors testify that the classic indicators of return on capital (ROE) and assets (ROA), estimated on the basis of balance sheet data, are characterized by high homogeneity, so they cannot correctly identify "efficient" and, together with them, "inefficient" banks [47]. Along with the specified efficiency indicators, the coefficient characterizing the operational efficiency of banking activity – or CIR – deserves attention. CIR (from the English cost to income ratio), which in the scientific works of domestic scientists was called the efficiency coefficient. This indicator is calculated according to the algorithm for determining the ratio of operating expenses and operating income of a commercial bank [16; 47; 50].

The analysis of the formation and development trends of the banking system of Ukraine makes it possible to assert that the use of profitability indicators as an efficiency criterion is determined by the historical component. At the beginning of the birth of the domestic banking system, one of the primary goals and tasks was to stimulate the quantitative characteristics of the development of commercial banks. The gradual resolution of this issue was encouraged by the National Bank of Ukraine through the use of incentive measures to increase the authorized capital of banks. In domestic practice, it is usual to identify the analysis of the efficiency of banking activity with the determination of profitability indicators. In addition, the application of the method of financial ratios as a key assessment tool [16, 47]. According to the NBU methodology, indicators are calculated in relation to the bank's total assets. It should be noted, that in practice it is considered that if the rate of return on assets exceeds the level of 1%, then the banking institution works profitably. In international practice, on the contrary, the value of the coefficient of return on assets within 12% is optimal (Table 1.2) [35].

Table 1.3

Key coefficients for calculating the level of profitability of a commercial bank and their characteristics

Indicator	Calculation	Brief description
Profitability of assets **ROA**	ROA = (PD/RA)*100% or ROA = (P/A)*100%, where PE is net profit; RA – working assets of the bank; A – total assets of the bank.	The ROA ratio must be at least 1%. It shows how much net profit 1 hryvnia brings. assets of the bank.
Profitability of capital **ROE**	ROE = (ChP/K)*100%, where K is the bank's own capital.	The recommended value of this indicator is at least 15%. It shows how much net profit per UAH 1. own capital the bank.
Clean spread	CS = ((PD/PA)*100%) – ((PV/PP)*100%), where PD is interest income; PA – paid assets from which the bank receives income; PV – interest expenses; PP – payable liabilities, liabilities for which the bank bears costs.	The norm is not less than 1.25%. ChS shows the bank's net profitability.
Net interest margin	CPM = ((PD – PV)/RA)* 100%.	The norm of the coefficient is not less than 4.5%. Margin shows how much net interest incomebrings 1 UAH working assets.

Source: formed by the author based on [32; 35; 47; 50]

The ROE indicator shows the return on equity capital of a banking institution. Its value is of particular interest to shareholders of a commercial bank, as it is approximately equal to the amount of net profit that shareholders receive directly from investing their capital. The optimal value of the ROE 1 indicator should be at least 15% [35].

The ratio of profit and equity determines the indicator of stability. The analysis of this ratio allows us to predict how the level of profitability of a commercial bank will change. In practice, some banks, and even more so their shareholders, detail this profitability indicator using the ROE 2 return on equity ratio. This indicator makes it possible to assess the expediency and effectiveness of shareholders' investment of their own funds and the effectiveness of the actual return on equity capital, in addition, it shows the bank's ability to dispose of all his money. For shareholders and shareholders of a particular bank, it is important to compare the percentage of return on authorized capital with a similar indicator of other commercial banks in order to find out the most profitable and profitable placement of own financial resources [31–34].

The "Spread" indicator is used to assess the effectiveness of the bank's performance as an intermediary between borrowers and depositors, as well as the level of competition on the financial market. In a general understanding, "Spread" is the simultaneous sale and purchase of futures contracts for the same commodity, but with different delivery terms, or for two different but interrelated commodities [32; 35]. Usually, in the case of intensifying competition, the spread decreases and commercial bank managers are forced to look for other sources of income. The analysis of the net spread is related to the bank's interest policy, which is reflected in changes in interest rates for active and passive operations. The approved interest policy of the bank for credit and deposit transactions makes it possible to minimize the interest rate risk. The degree of such consistency shows the net spread. That is, the net spread is the difference between interest received and paid and rates. Thanks to this indicator, the necessary minimum difference between bank rates for active and passive operations is determined, which in turn gives a chance to minimize costs, but will not bring profit (the minimum value of this indicator is 0). The optimal value of the net spread should be at least 1.25% [23; 24; 33].

For a qualitative analysis of the profitability of commercial banks, additional indicators such as net interest margin and net profit per share are used. The latter serves to cover the costs of a commercial bank and risk, including inflationary, profit creation, covering agreements in agreements [23; 24; 33].

Net operating margin is presented in the form of two components – non-interest income per unit of assets and interest income per unit of assets. Such a division provides a vision of the ratio of income from the main banking activity (loans, leasing, investments, etc.) and non-interest income received from the provision of paid financial services to its clients. Due to the intensification of competition, banking institutions are looking for new, somewhat "non-traditional" sources of income, which provide a chance to diversify activities and increase the amount of total profit thanks to non-interest income [33].

The labor productivity indicator reveals the effectiveness of the bank's personnel policy, which significantly affects its reputation.The indicator of the labor productivity of the cohort of specialists belongs to the coefficients on the basis of which the level of efficiency of the banking institution is calculated [38].

Adequacy of regulatory capitalshows information about the bank's ability to timely and fully settle obligations arising from trade, credit or other monetary transactions. The normative value of this indicator should be at least 10%.

The algorithm for determining and calculating the amount of regulatory capital is based on the research and development of the Basel Committee with the aim of compliance by banking institutions with the minimum requirements for capital adequacy. These developments were taken as a basis for the work of the National Bank of Ukraine and specified in the Instructions on the procedure for regulating banking activity in Ukraine [35]. Thus, one of the key directions of the management of a banking institution is the growth of the considered profitability indicators, in addition, an important direction of their activity is the minimization and reduction of the risk of banking operations.