ANALYTICAL SUPPORT OF BANK TREASURY MANAGEMENT IN THE CONDITIONS OF CHANGES

Valentyna Kostyuchenko, Kyiv National University of Trade and Economics
Pavlo Petrov, Kyiv National University of Trade and Economics
Anastasiia Kamil, Kyiv National University of Trade and Economics
Liubov Kolot, Kyiv National University of Trade and Economics
Anna Melnikova, Kyiv National University of Trade and Economics

ABSTRACT

In present-day economic environment, local banks need new management methods. There have been significant changes in the mechanisms of bank management recently, while the methodology for assessing their performance remains unchanged. The evaluation of the performance of a bank or any other entity depends entirely on financial results. And this, according to the authors, is a significant drawback. An evaluation system is needed which could objectively and thoughtfully reflect the dynamics of the bank in achieving the goals and objectives of shareholders and promptly diagnose deviations from the expectations. In addition, in conditions of constant economic, social and political turbulence, there is a need for analytical support, which should introduce the mechanism for rapid response to environmental volatility, assessment of the entity's response to changes in the environment and management decisions.

The practice of accounting in Ukrainian banks indicates a lack of information for management, operational management primarily. Severe competition, accelerated technological development, new banking products lead to the fact that existing management accounting systems become uninformative and unmanageable. This is evidenced by the withdrawal from the market of banks that could not pay their obligations due to unpreparedness for change in the environment. Due to the fact that the treasury is responsible for the bank's solvency, the availability of analytical support that will allow managers to make timely and informed decisions is the key. Moreover, the issue of change management arises, because changes may lead to both unpredictable losses and unexpected revenues. Implementing the concept of change management, the entity will have the ability to build its own activities in such a way as to adapt to volatile environment. Since a healthy banking system is the basis for economic growth of the state, the importance of implementing analytical support that would operate in a changing environment cannot be overestimated.

This study makes an up to date contribution to the feasibility of introducing analytical support to the management of the bank, emphasizes the role of accounting and analytical support of the bank treasury and offers indicators that affect its ability to respond to changes in the environment.

Keywords: Bank Treasury, Change Management, Analytical Support, Management Accounting, Management Reporting, Capital, Rate of Return.

JEL Classification: G310, M410

INTRODUCTION

The global financial crisis (GFC), which began with the bankruptcy of large US financial institutions, led to the bankruptcy of several European banks and the fall of various stock indices and a significant drop in stock prices (Norris, 2008; Umantsiv & Ishchenko, 2017). This has led to liquidity problems and deregulation of financial institutions in the US and Europe, exacerbating the liquidity crisis (Landler, 2008). Prior to the GFC, the bank treasury functions focused primarily on interest rate risk management, investment, capital, and financing. GFC highlighted the shortcomings in the operational model of the treasury and the functionality of effective capital management, the increase of which is the main strategy of a commercial bank. Thus, the GFC emphasized the strong interdependence between solvency and liquidity and different types of risks, as well as the need for strong analytical support for bank management.

With the development of the formation of management reporting approach in Ukraine, there is a need for a coherent and effective access to corporate reporting and the need to improve the quality of information available to managers and shareholders, i.e. providers of financial capital. Through the formation of such reporting as an analytical tool, which combines financial and non-financial information, it becomes possible to create and increase the value of the organization (Kostyuchenko & Bohatyr, 2015). Achieving the main strategy of the bank capital increase becomes possible by providing treasury management in Ukrainian banks with analytical reports, hence, necessary up to date data regarding current ratios and indicators. Due to this, there is a need to study the methodological approaches to the formation of the analytical support reports for the bank treasury managers.

LITERATURE REVIEW

Studies of changes in organizations, adaptation problems and change management models are covered in multiple works (Adizes, 1992; Ansoff, 2007; Kotter, 2012; Bridges, 2017; Hiatt, 2006). Scientists emphasize that for effective change management, the organization's management must have access to relevant and comprehensive information. The ways of providing managers with such information was investigated by Ukrainian scientists (Holov, 2018; Len, 2015; Chepelyuk, & Pantelyeeva, 2016; Tarasyuk, 2010). They have made a significant contribution to the study of problems and prospects of accounting and analytical support of the business entities management process. The presence of significant scientific work confirms the relevance of the implementation of accounting and analytical management for the organization. However, the implementation of analytical support in the context of change management for the bank is not sufficiently studied in scientific papers.

THE ROLE OF LIQUIDITY MANAGEMENT IN ENSURING THE SUSTAINABLE DEVELOPMENT OF THE BANK IN TIMES OF CHANGE

In the process of corporate governance of the bank, which aims to assess the value of the bank's capital in a changing environment, the key place is occupied by the bank treasury as an organizational structure engaged in financial transactions in open financial markets foreign exchange, liquidity, stock, capital and derivatives. It is possible to better understand the purpose of the bank treasury through the formation of its main goal, which is to manage the bank's balance sheet, i.e. management and allocation of financial resources of the bank to achieve its strategic goals within market and regulatory constraints, in normal and stress scenarios (Choudhury, 2015).

The main basis of the bank treasury is to ensure its stability in the process of effective management of assets and liabilities, i.e. to maintain a sufficient level of liquidity of the balance sheet, taking into account the profitability of active and passive operations of the bank (Zadneprovska, 2016).

The bank treasury occupies a special place in the structure of a commercial bank and is its major operating unit. The following groups of departments are usually created in the structure of a commercial bank: department of financial and economic activity (operations on resources attraction and investment); department of operational activity (settlement and cash operations); internal activity departments (support of the bank's internal infrastructure) (Lysenok, 2018). Through constant monitoring of key financial indicators, the bank treasury identifies the main trends, compares market dynamics and quickly manages resources in accordance with the strategic directions of the bank's development.

The liquidity is the vital factor in the functioning of any financial institution. Its condition is most vulnerable to any changes: be it economic, social or regulatory. The banking system of Ukraine has suffered significantly over the past few years from many objective factors. The main reason for the liquidation of institutions was the lack of liquidity and, as a result – the recognition of insolvency. Bank liquidity is the ability of an individual institution or system as a whole to ensure the timeliness and completeness of all its monetary obligations, which implies the ability to quickly convert an asset into cash without significant loss of its value.

Effective management of the bank presupposes the availability of complete, reliable and substantiated information on the operations performed, their essence and scope, provision of financial resources and results of business activities. Management reporting often ignores liquidity management and is imperfect due to incomplete information and its retrospectives. Management reporting in accordance with the Regulation of the National Bank of Ukraine on the organization of accounting and reporting in banks of Ukraine dated 30.12.1998 is reporting on the status and results of the bank, which is used by the bank's management board to plan, control and make appropriate management and business decisions.

At the same time, the regulator does not clearly define the qualifications for reporting on liquidity risk: banks are required to report on liquidity ratios H4 (instant liquidity), H5 (current liquidity) and H6 (short-term liquidity), while internal reports of banks are not regulated in any way. However, the National Bank of Ukraine recommends the following:

1. Create an independent risk management unit with appropriate authority, resources, expertize and corporate status, which will not be hindered in access to information, in the formation and submission of management reports on the results of their research;

2. Validate regularly reports on the concentration of assets and liabilities of the bank;

3. Prepare reports for the bank's supervisory board, management board and collegial bodies on the liquidity position and the need for financing.

At the same time, management reporting on liquidity should be formed by an authorized unit based on the following principles:

1. Comprehensiveness and relevance;
2. Reliability;
3. Timeliness;
4. Controllability;
5. Transparency;
6. Flexibility and scaling (Skoglund & Chen, 2015).

Management accounting, which implies management reporting as one of its components, is a flexible system based on the analysis of opportunities and threats of the bank and management decisions based on such analysis. The management accounting system of the bank includes the following elements:

1. Financial planning;
2. Budgeting;
3. Centers of responsibility;
4. Financial and organizational structure;
5. Transfer pricing.

With the help of these elements the organization of analytical support and the formation of management reporting in the bank take place. This process is usually lengthy and starts with defining objectives of management accounting in bank treasury by management objects. We suggest the following objects and respective indicators to track (Table 1).

Table 1
OBJECTIVES OF MANAGEMENT ACCOUNTING IN THE BANK TREASURY BY OBJECTS OF MANAGEMENT

Management objects	Objectives of management accounting	Quantitative indicators
Activities	1. Liquidity management 2. Risk hedging 3. Determining the financial result 4. Management of the structure of the balance sheet	1. Liquidity coverage ratio 2. Net stable funding ratio 3. Net operating income and expenses 4. Indicators of the volume of transactions by type of activity
Centers of responsibility	1. Management of bank budgeting 2. Management of risks affecting capital	1. Net operating income and expenses, including transfer pricing 2. Profitability indicators
Products	1. Tariff and rate management 2. Efficient use of resources 3. Introduction of new products	1. Performance indicators: dynamics of the bank's assets and liabilities, purchase and sale of foreign currency, commission income
Operational and investment activity	1. Management of investment activity of the bank 2. Management of funding sources	1. The ratio of equity and borrowed capital 2. Return on invested capital 3. Counterparty analysis

We think that the mentioned objectives and their indicators offer substantial scope of data, which in case of timely and precise analysis helps the managers ably react to surrounding volatility. Bank treasury is responsible for reacting to both internal and external environment, since this unit performs operations live and must have all the data it needs to adequately operate on the market. While dealing with bank's internal distribution of liquidity and its relevant pricing, so called Funds Transfer Pricing, it is absolutely critical to be able to track the solvency of counterparties.

We shall introduce a new component of the analytical support of the bank treasury, which, according to the authors, should be included to management reporting. It is important to understand that generally accepted performance indicators of banks may not always characterize the objective state of the system. For example, as of December 31, 2019, the banking system of Ukraine had ROE (Return on Equity) at 29.7% and ROA (Return on Assets) at 4.7%. For comparison, on average in the EU these figures do not exceed 6.0% and 2.5%. However, the Ukrainian banking system, unlike the EU banking system, has a greater risk appetite and needs to have various ratios to manage this risk. Ukrainian banking system is characterized by extremely high share of nonperforming loans: 48.4% vs 3.1% in EU in 2019. Therefore, when bank treasury unit evaluates the counterparty, especially dealing on foreign exchange and money market, we propose to calculate the following indicators in addition to the commonly used ROE and ROA: Return on Equity adjusted to Loan Provisions (1).

$$\text{ROELP} = \frac{\text{Earnings after Taxes}}{\text{Shareholder's Equity} - \text{Loan Provisions}}, (1)$$

ROELP characterizes the ratio of profit or loss of the bank after tax to the difference between equity and provisions for impairment of loans and indebtedness of legal entities and individuals. This ratio allows measuring the bank's shareholders' risk appetite and their ability to control the quality of the loan portfolio. Accordingly, a higher ROELP ratio means that the bank does not only build provisions for loans and loans that depreciate, but actively works to assess the risks of lending. Therefore, the risk of non-repayment of an interbank deposit or a foreign exchange transaction settlement fail is lower.

We conducted an analysis of the banking system of Ukraine in 2019 using this ratio. Initial data is publicly available on the National Bank of Ukraine website. You may see the results in Table 2.

Table 2
RETURNS ON ASSETS, EQUITY AND EQUITY ADJUSTED TO LOAN PROVISIONS IN UKRAINIAN BANKS, 2019

Ratio	ROA	ROE	ROELP
State owned banks (5 entities)	4,6%	38,2%	-27,8%
Foreign banking groups (20 entities)	5,7%	25,6%	34,9%
Private owned banks (50 entities)	3,5%	16,3%	24,0%
Ukrainian banking system (75 entities)	4,7%	29,7%	-121,9%

It is possible to apply this ratio to any bank on the basis of operational reporting that banks provide to the regulator, as well as from open sources. The goal is to have correct and timely information for the profitable and low risk activities of the bank. It is clear that despite high ROE, state owned banks have negative ROELP, which means that their lending strategy is doubtful and may impact their day to day activities.

Moreover, each bank should evaluate itself using this ratio. This will help find narrow places in its own strategy and deal with them respectively. Further study and application of this indicator, as well as its derivatives, is the subject of a separate study.

RECOMMENDATIONS

Having conducted this study and having examined the current state of analytical support in banks represented in Ukraine, we suggest the following information to be contained in the management reporting as essential part of analytical support of bank treasury:

1. Report on the gaps between assets and liabilities by maturity (including different currencies in the balance sheet).
2. Report on the consequences of potential stress scenario (according to the model of banking supervision and/or the bank itself, i.e. developed by the asset and liability management unit).
3. Cash flow statement for the future 7-14-28 days.
4. Report on early warning signals: a list of indicators and their ranked values, indicating the measures to be taken in the event that they acquire certain values.

5. Report on the status of reserve sources of financing (checking the relevance of credit lines, the actual use of limits).
6. Report on the ratio of assets and liabilities, current accounts of customers and time deposits, highly liquid assets and the amount of credit lines.
7. Report on the comparison of liquidity risk limits and actual results with a detailed explanation of the reasons for violation of liquidity risk limits.
8. Analysis of counterparties for solvency to minimize the risk of operating activities.
9. Triggers report: comparison of trigger values and actual values, including different ratios of loans to assets, loans to deposits, assets to deposits in different time intervals.

CONCLUSION

Thus, the successful implementation of the analytical support in the bank treasury involves a clear definition of management objects and centers of responsibility. Quantitative indicators will create even more stringent restrictions on liquidity and funding, which will affect the financial condition of the bank. In this regard, it is important that the managers are engaged in liquidity management and financing at a forward pace at both the structural and tactical levels. This means the following:

1. Inclusion of the financial and liquidity planning practice into business planning;
2. Setting limits (for example, weighted average maturity limits) and incentives (for example, through internal transfer pricing systems) for proactive management of the balance sheet structure;
3. Modification of processes and control measures for daily liquidity management in all areas of activity, legal entities and currencies.

The analytical support approach in the bank treasury allows to respond quickly to changes in the economic environment, to plan liquidity, to comply with the National Bank of Ukraine and the Basel Committee regulations. Liquidity management reports should be relevant, reliable, understandable and comparable. In particular, they should contain sufficient information on the assessment and forecast of the bank's liquidity needs and the sources of funds available to meet such needs at different time intervals, and the scenarios of events; largest creditors, liabilities providers, the level of concentration and the counterparty risk ratios. Moreover, the new approach to liquidity management is a big step towards European directives and global practices. Along with the new liquidity assessment policy, the proper analytical support of bank treasury unit will allow Ukrainian banks to become more transparent and attractive to foreign investors and international financial institutions.

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