LIQUIDITY RISK MANAGEMENT AND ACCOUNTING OF RELATED OPERATIONS IN THE BANKING SYSTEM

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ABSTRACT: *Risk management is the key of modern banks focused on market activity; it is represented by the management of the range of risks faced by the banking system. Banks must permanently maintain an appropriate degree of liquidity, for maintaining credibility with customers and the banking system. Sometimes, In their current activities, credit institutions are dealing with liquidity risk. In the situation where the risk of liquidity is manifested, to quickly procure liquidity, credit institutions can use several solutions. Compared to other banking risks (operational risk, the interest rate, currency risk, country risk), the liquidity risk is a common aspect of bank management, only in extreme cases generating insolvency problems.*

KEY WORDS: *liquidity risk, credit, performance, banking management, accounting*

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1. INTRODUCTION

Risk management is the key of modern banks focused on market activity; it is represented by the management of the range of risks faced by the banking system.

Credit institutions are facing increased volatility, and the consequences of crises can be quickly transmitted from one financial centre to another.

The risk describes these situations in which the bank's market value is influenced by external or internal factors to the bank that acts unpredictable. The quantification risk is assuming references of a benchmark. According to Cambridge Advanced Learner's Dictionary, a benchmark is a level of quality that could be used as a standard in comparisons.

The risk, by reference to a benchmark, shows the possibility of modification compared to it. The coefficients risk represents the link between the risk situation and the bank's results.

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The bank solvency is a necessity that ensures the good functioning of the bank, and the low liquidity or the impossibility of procuring it can lead to insolvency.

The liquidity is considered „the breath of the bank”. Insufficient liquidity affects the bank’s current activity and generates important financial and image costs.The banks must effectively manage their liquidity needs, cash-flow fluctuations must be included in the realised projections.

The liquidity risk has two determining sides:

- the passive side of the balance sheet, the consequence of depositors’ requests for the withdrawal of established deposits;
- the active side of the balance sheet, as a result of lending commitments and credit lines, which when exercised (funds withdrawal) can endanger liquidity assurance.

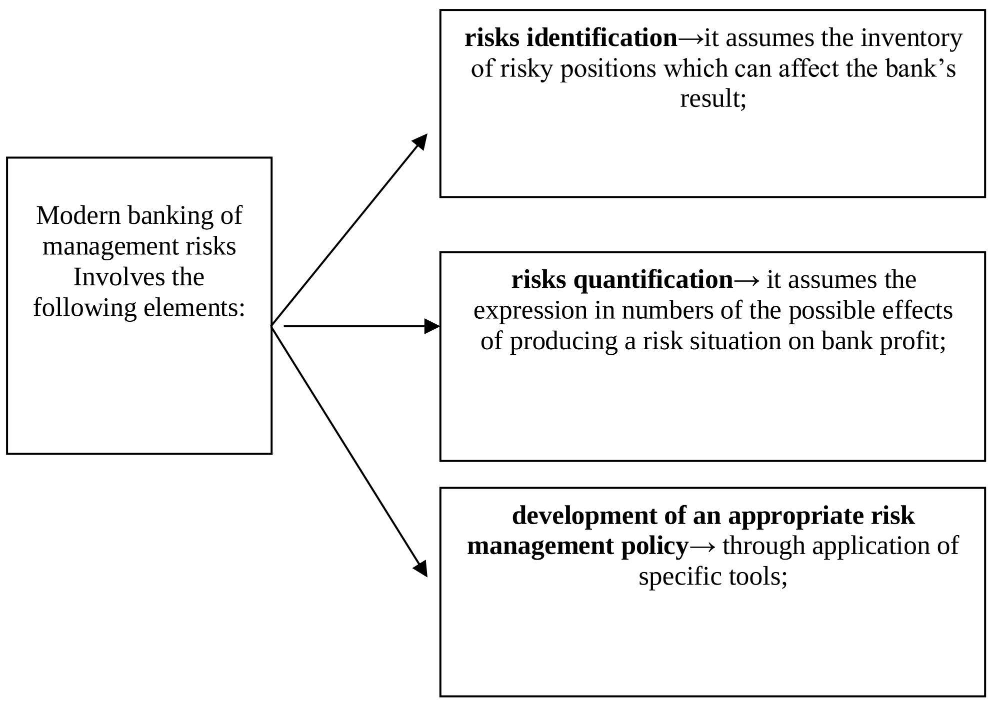

Figure 1. Modern banking of management risks

2. LITERATURE REVIEW

The relationship between liquidity and stability is study in speciality literature like Wagner (2007) and Acharya and Naqvi (2012). Bank stability is related to asset liquidity, to which high asset liquidity leads to more financial stability (Wagner, 2007). So, an intelligent management of the funding liquidity risk of banks protects banks from default risk.

The liquidity risk also negatively affects the bank's risk-taking behaviour, implying that low liquidity risk generates high risk-taking behaviour (Dahir et al., 2018). Some studies made by Hong et al. (2014) demonstrated that banks' liquidity risks are a prominent factor in recent bank bankruptcy.

The economist Edward A. McNelly appreciates liquidity as "having money when the bank needs it".

Nicolae Dardac in the paper, The Management of bank liquidity, believes that the definition of bank liquidity is based on its main functions. The functions of bank liquidity, according to Ilie Mihai I. (2003) are reproduced in specialized literature, as follows:

- ensuring the progress of banking activity under normal conditions by streamlining the banking intermediation process, under the conditions of ensuring trust and attractiveness for depositors and placing resources in safe conditions;
- protecting the interests of clients on the one hand and shareholders on the other;
- ensuring the reasonable ability to repay deposits to customers, regardless of how the investments made in loans and other assets are returned to the bank;
- ensuring the bank's independence from marginal loan resources on the market that have particularly high costs;
- avoiding as much as possible even loans from the Central Bank, which as lenders of last resort, is proposing higher costs than those caused by attracting resources from non-banking customers.

The liquidity risk consists in the probability that the banks will not be able to honour its payments to customers, as a result of the deviation of the proportion between long-term loans, short-term loans and the non-correlation of these assets with the bank's liabilities, with the resources. Among the causes that are leading to the emergence of bank liquidity risk, the following can be mentioned (Olteanu A., 2003):

- the situation of the real economy;
- mass-media influence;
- financial indiscipline of clients;
- the dependence on the financial market;
- the mismatch between the maturities of deposits and loans.

The main liquidity sources and liquidity destinations are, as follows:

A. the main liquidity sources:

- cash;
- deposits at the Central Bank;
- deposits at correspondent banks;
- the portfolio of treasury bills, treasury certificates and other negotiable securities;
- loans from other banks;
- loans from the Central Bank.

B. The main destinations of liquidity are:

- mandatory reserve requirement at the Central Bank (RMO);
- possible loan requests and cash needs of customers;

- covering possible requests of individual and/or legal clients for withdrawal of funds.

The liquidity risk can manifest itself in two forms (Mihai, 2003):

- ***immediate liquidity risk***, when the bank cannot meet the demands of massive withdrawals, even before maturity, which causes the bank to resort to marginal or last-resort loan resources, with very high costs and corresponding consequences;
- ***conversion risk***, which appears in the situation where the bank, although it has shorter-term resources, made longer-term placements on their account, which they cannot quickly turn into cash.

In the framework of liquidity risk management, it is adivasble to pay special attention to the following main elements (Danila, 2002):

- the knowledge of the maturity structure of the attracted funds ensures a higher level of quality of the forecasts regarding the net flows of funds;
- the liquidity risk management is a complex process due to the interconnections with other risks related to banking activity;
- the volatility of the funds attracted is dependent, among other things, on the structure of the institution's clients, knowledge of their behavioural characteristics;
- diversifying the sources of funds and their maturity can both lead to avoiding dependence on certain clients, as well as reducing the risk of very important resource losses in a very short term.

„The control of bank liquidity remains outside the harmonization efforts, since its measurement is the responsibility of the national authorities, with all consequences resulting from such a situation (Dardac, 2007).

Liquidity of assets expresses their ability to be transformed quickly and with minimal costs into cash or availability in current accounts. The chargeability of liabilities shows the ability of obligations to become due for payment.

The liquidity risk has several meanings:

1. represents the risk of a bank that its income and capital will be affected, due to the inability to honour its obligations on time, without facing unacceptable losses (according to U.S. Office of the Comptroller of the Currency).
2. the liquidity risk includes:
   a. the inability of the bank to finance its portfolio of assets at the appropriate maturities and interest rates;
   b. the inability of the bank to liquidate the position at the appropriate time and at a reasonable price (according to J. P. Morgan Chase, Annual Report 2000).
3. the liquidity risk arises from the non-correlation of maturities between receipts and payments (according to Merill Lynch, Annual Report 2000).
4. the liquidity risk arises from the non-correlation of cash-flow maturities of a group of assets, liabilities and off-balance sheets instruments (according to Cooperative Bank).

5. the liquidity risk consists of the protentional loss of profit and/or capital as a result of failure to comply with assumed obligations and derives from the insufficiency of reserves compared to the needs of funds.

3. THE IMPORTANCE OF BANK LIQUIDITY AND ITS MANAGEMENT

Banks must permanently maintain an appropriate degree of liquidity, for maintaining credibility with customers and the banking system.

To meet the liquidity objective, the management of inflows and outflows of funds must be managed so that there is always sufficient liquidity at the level of the banking institution.

The liquidity risk manifests itself as a result of the non-correlation of maturities between assets and liabilities, resulting in the phenomenon of extending maturities for assets and reducing maturities for liabilities.

Banks have the possibility to use specific techniques to eliminate or even reduce liquidity risk, techniques that target both resources and investments.

The techniques targeting bank resources are as follows (Stoica, 1999):

- attracting deposits from the population;
- looking for stable deposits;
- increase of own funds;
- operations on the capital market, primary and secondary;
- promoting products over longer periods of time;
- refinancing;
- maintaining the bank's credibility.

Regarding placements, to protect against liquidity risk the bank can use the following techniques and methods:

- granting credits on maturities in correlation with the maturity of the resources;
- careful control of credit risk;
- diversification of the loan portfolio on the three major segments: corporate, retail and SMEs;
- maintaining the mandatory minimum reserve at the established level;
- operations with derivatives.

„A much higher liquidity is required, as a rule, when a substantial part of the loan portfolio consists of high-value long-term loans, when the bank has a somewhat high concentration of deposits, or when recent trends show a reduction in a deposit accounts, constituted by economic agents, or high net worth individuals" (Hennie van Greuning & Brajovic Bratanovic, 2004).

A barometer of banking liquidity in Romania is represented by the Minimum Mandatory Reserve Establishment.

In the situation where the risk of liquidity is manifested, to quickly procure liquidity, credit institutions can use several solutions:

- Sales from the portfolio of securities held;
- Reduction of correspondent accounts at other banks;
- Liquidation of deposits established at the NBR and other banks in the banking system;

- ❖ Increasing interest rates for attracting sight deposits or term on the interbank market;
- ❖ Applying for loans on the interbank market;
- ❖ Refinancing loans from the NBR.

Accounting reflection of the loans requested by the bank to ensure its liquidity, are presented below.

- ❖ Procurement of liquidity through sales from the portfolio of held securities

1111 „Current account at NBR"	=	%
		3011„Financial assets held for trading"
		303 „Financial assets available for sale"
		311 „Derivative instruments held for trading"
		313 „Cash Flow hedging derivatives"

- ❖ Procurement of liquidity through the sale of assets such as gold, metals and precious stones

3566 „Other sundry debtors"	=	3611„Valuables from gold, metals and precious stones"

- ❖ Procurement of liquidity by reducing correspondent accounts at other banks

1111 „Current account at NBR"	=	121 „Corresponding accounts at credit institutions (nostro)"

- ❖ Procurement of liquidity through the liquidation of deposits established at the NBR and other banks in the banking system

-liquidation of deposits established at other credit institutions

1111 „Current account at NBR"	=	131 „Deposits at credit institutions"

-liquidation of deposits established at the NBR

1111 „Current account at NBR"	=	%
		1112 „Deposits on sight at the NBR"
		1113 „ Deposits on time at the NBR"
		1114 „ Collateral deposits at the NBR"
		1115 „ Deposits at the NBR refundable after notification"

- ❖ Increasing interest rates for attracting sight deposits or term on the interbank market

- the creation of deposits by other credit institutions:

1111 „Current account at NBR” = 132 „Deposits of credit institutions”

- ❖ Appealing for loans on the interbank market

-loan mobilizations from other banks

1111 „Current account at NBR” = 142„Loans received from credit institutions”

- ❖ Refinancing loans for the NBR

-mobilizations of refinancing loans

1111 „Current account at NBR” = 112 „Refinancing loans from the National Bank of Romania”

4. CONCLUSIONS

Credit institutions are facing short-term liquidity needs if loans and interests are not repaid according to the plan, customers are withdrawing significant amounts from deposits established at the bank due to Bank run phenomenon, or due to psychological factors. The rumours accompanied by assessments without a real basis (self-fulfilling prophecies) that are self-sustaining on the market, can cause the loss of credibility and even the bankruptcy of the bank.

Compared to other banking risks (operational risk, the interest rate, currency risk, country risk), the liquidity risk is a common aspect of bank management, only in extreme cases generating insolvency problems.

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