Optimizing the Banking Activity Using Assets & Liabilities Management

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Abstract. *In the actual study, starting from the international experience, we revealed the role that should be taken by the Assets and Liabilities Committee (ALCO) within the Romanian commercial banks. ALCO became one of the tools used by the executive management of the banks to take decisions regarding the future policy of assets and liabilities management, relying on the synthetic information prepared by well trained technicians but without voting right (usually middle management staff). We consider that the implementation of an assets and liabilities management strategy cannot be done without an appropriate corporate governance structure, even though the bank is having highly specialized staff. Models of some western banking institutions may be considered as benchmarks by the Romanian banks.*

Key words: Assets and Liabilities Committee (ALCO), optimization, gap, corporate governance.

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JEL Codes: G21, G32.
REL Codes: 11C.

1. Techniques and instruments of banking assets and liabilities management

The management of the bank is permanently concerned about the good management of the whole risk profile the organization is exposed to. If the risks (liquidity risk, interest rate risk, foreign exchange risk, credit risk etc.) had been uncorrelated, then they could have been handled separately, by taking appropriate decisions for specific situations, ignoring this way the consequences of the decisions towards the other types of risks. However, there are strong connections, usually cause-effect ones, between all categories of risks.

In our opinion, the main goal of the banking assets and liabilities management (ALM) is the control of the net interest margin. This control can be defensive or aggressive. The purpose of the defensive control is the isolation of net interest margin from the interest rate fluctuations, no matter the course of these variances (positive or negative) for the bank. On the contrary, the aggressive control focuses on maximizing the net interest margin by changing the balance structure of the bank. Both cases analyze the sensitive positions of the bank balance sheet that are sensitive to changes that can appear in the interest rate. The ability to forecast the interest rates represents an important factor, especially within the aggressive control, in ensuring the success of a strategy.

Banks may use a series of available financial instruments to adjust their assets and liabilities. The most frequent method to adapt the short-term assets is the use of money market. In Romania, there are a few financial instruments and banks do not have too many options regarding targeting this strategic issue. Hereby, the available instruments include: interbank placements, purchasing government securities, reverse repo transactions with treasury bills. Developed markets provide an extended variety of securities, both public and private, which can be directly transacted or used in different transactions as a support of derivatives.

The structure of liabilities can also be modified on long-term, unlike changing the assets' structure. This implies adapting the strategy according to a series of elements:

- anticipated structure of assets;
- interest rates evolution;
- necessity of ensuring an adequate financing, both from the interest rate risk point of view, as well as liquidity risk.

When the banking institution establishes the risk approach (defensive or aggressive approach), the experience and the risk appetite of management factors are essential. Let's do not forget that the banking assets and liabilities management, with a view to ensuring the maintenance of an appropriate position on international financial markets, is supported by sophisticated financial instruments such as: futures, options and swaps which must be very well-known in details in order to be efficiently used.

An aggressive management consists of two parts. The first one is anticipating the

evolution of the interest rate. The second one consists of adjusting the structure of assets and liabilities that are sensitive to interest rate, in order to maximize the net interest margin. Anticipating an increase of the interest rates leads to taking some measures of quantifying a positive gap of sensitive balance elements, while a decreasing trend leads to a negative gap. These measures can be synthesized as follows:

The impact of changing the interest rate over the structure of portfolio

Table 1

Forecasted change of market interest rates	Quantified gap	The change of portfolio
Increase	Positive	Increase of sensitive assets Decrease of sensitive liabilities
Decrease	Negative	Decrease of sensitive assets Increase of sensitive liabilities

If an increase of interest rates is anticipated, the bank that has a positive gap will register an increase of its revenues. This is the ideal situation. If the institution has a negative gap, it should operate some amendments concerning its portfolio. Hereby, it could reduce the remaining maturity of placements by selling the assets with prolonged date of payment and fixed interest rate and purchasing liquid assets with short maturity date. Also, it is necessary the stimulation of floating interest credit, to the detriment of that one with fixed interest rate. In parallel, the bank should try to increase the maturity of sensitive resources and to try to get them at the current interest rate (smaller than the future one) that should be unchanged on a longer period. If a decrease on interest rate is anticipated, the bank will act opposite.

The aggressive management has a series of disadvantages that, in case of a failure, could lead to major losses for the bank:

- an error within the prevision of interest rates or when an unexpected situation occurs leading to the inversion of their dynamics as an immediate effect could affect the initial objective and cause important losses. In order to avoid these consequences, the previsions must be permanently updated and immediately communicated to the board, usually by ALCO (Assets and Liabilities Committee);
- a certain strategy, once implemented, is difficult to be changed, it requires time and further expenses and its immediate consequences are obvious for banking liquidity and affect the whole banking process.

A defensive strategy tries to preserve the current level of net interest margin by protecting it from any change in interest rates. This type of management tries to maintain a balance between the sensitive assets and liabilities for a certain period of time. If this point is reached, an increase of interest rates generates a change of collected and paid interests in the same way, so the net interest margin remains unchanged.

Both the defensive and the aggressive approach are management extremes and

they are not used in practice. A mix of strategies is often used and its application depends on the market characteristics, the risk appetite of the bank management and shareholders and the management of other types of inter-correlated, but inherent for the bank activity, risks.

In economic emerging markets environments, as the Romanian one is, we consider that the management of the bank must take a series of specific measures in order to protect the portfolio and its market value.

In case of assets it should:

- decrease of the credit maturity and of the investment portfolio;
- adjustment of active interest rates to real positive levels;
- usage with priority of variable interest rates;
- disburse credits with priority for clients who have export activity, that cash in convertible currencies, that register a consolidated demand in real terms, that prove a competition advantage in comparison to other industries or to other competitors, that prove price adjustment ability;
- apply of index interest rates for compensating the inflation erosion of investments value;
- increase the number of credit and investment portfolios reviews to identify the possible problems.

In case of liabilities it should:

- borrow funds, as much as possible, at fixed interest rate,;
- structuring interest margin (the revenue corresponding to borrowed and then lent resources) according to the credit maturity and the level of risk;
- maintaining a liquid assets stock, for permanent maintenance of adequate liquidity, which is necessary for the reimbursement of borrowed deposits;
- active usage of interbank market facilities on short term (O/N – overnight) to invest the excess of liquidity and to assure the resources for financing;
- ensuring an appropriate safety liquidity level (back-up liquidity);
- diversification of borrowed resources;
- providing access to further credit resources, such as credit lines ensured by other banks or even by Central Bank.

2. Assets and Liabilities Committee – support instrument of banking treasury activity

Nowadays, one of the most important risk management functions of a bank is ALM – Assets and Liabilities Management, generally represented by balance strategic management, whose purpose is optimizing/ minimizing the variability of net interest margin and the market value of bank's equity. The literature gave many definitions to this function of banking management, but all of them are correlated with the above description:

- practice of correlating the maturities and the cash-flows of assets and liabilities to maximize the revenues and to reduce the interest rate risk

(Guide to Risk Management: a Glossary of Terms, Risk Publication 1989);

- the process of planning, addressing and the control of flows, level, mix and funds maturity in order to reach the financial objectives and the control of financial risks (Successful Bank/Asset Liability Management, Bitner & Goddard. Wiley 1992);
- financial risks management of every financial institution (Financial Risk Management in Banking: The Theory & Application of Asset & Liability Management, Uyemura & Van Deventer, Irwin 1993);
- coordinated management of bank balance, taking into account alternative scenarios of interest rate, liquidity and anticipated payments (Commercial Bank Financial Management. Sinkey, Prentice Hall, 1999);
- strategic management of balance taking into account all market risks (Asset/Liability Management, Shitinivasulu, Euromoney – DC Gradner workbooks, 2002).

To synthesize, assets and liabilities management responds, both in theory and practice, to the following problems of bank activity:

- liquidity planning;
- interest rate risk management;
- funds internal transfer;
- equity planning and allocation;
- quantifying the profitability.

Recent evolutions of Romanian banking market, represented by reduction of interest rates correlated with the decreasing trend of inflation, decreasing yield of government securities (banks' preferred option until 1-2 years due to the favorable price conditions and reduced risk), privatization of public banks, opening of some branches of important foreign banks, rising the non-governmental credit, rising of competition, rising of financial flows across borders, all of these require a serious management risks and a special concern on banking assets and liabilities.

An efficient organizational structure is, in our opinion, a general condition for any successful activity and a particular one for assets and liabilities management. In a broader view, the way the activities are organized, the relationships between employees and the relationships with third parties, meaning the whole organizational culture of an institution, represent elements that have a distinct impact on performances. From this point of view, many Romanian banks deficient, and the examples of foreign institutions with a certain vision of business management, a vision built in a developed economic environment, which is different from the Romanian one, could be taken-over and could contribute to desired success.

The way the management defines and operates its decisions, internal communication and internal formalism degree are components of organizational culture and, the more defined and implemented they are, the more mature and defined the company is. In this context, we consider that the implementation of an

assets and liabilities management strategy cannot be realized without an appropriate organization, even though the bank disposes of highly qualified technicians. The models of occidental banking institutions could be taken as benchmarks by the Romanian banks, the most important components of this organization are:

- active coordination/control at the highest level of management (the Board);
- clear establishment of structure and functions of corporate governance: the Board, Assets and Liabilities Committee (ALCO), Management Committee, Risk Committee, Audit Committee;
- policies, procedures, adequate limits;
- correct evaluation, monitoring and management of risks;
- adequate and comprehensive internal control.

From our point of view, the most important component of this structure is the Assets and Liabilities Committee (ALCO) that has the greatest responsibility in building of the general strategy and the supervision of the whole function of assets and liabilities management.

The importance of ALCO in banks is getting greater and greater, and its composition is targeting the high level managers. Generally, the structure of ALCO consists of board members, business lines managers, treasurer and the chief financial officer of the bank. The recent evolutions denote a conflict element in ALCO activity, represented by the emerging of new, more and more complex financial products and by new technique analysis used in quantifying risks, that require more and more qualified abilities, which belong typically only to the experts in risk analysis. On the other side, the board members have the advantage of a 'big picture' vision of the whole activity, fact that enables them in taking strategic decisions. The compromise in organizing a function, strategic, on the one hand, and technically complex on the other hand, is solved by attending the ALCO meetings by guests too (permanent or not) – highly qualified technicians (usually, from the middle management of the bank) – who can provide explanations and clarifications of technical products, but without the right to vote on ALCO decisions.

In brief, we appreciate that ALCO purposes are:

- the analysis of the impact of changes that appeared in economy and legislation;
- the analysis of interest rate evolution;
- establishing the interest rates, the prices of assets and liabilities products;
- monitoring the liquidity risk and the exchange rate risk;
- analysis of the difference between current and forecasted/budgeted performances (net interest margin, active and passive average interest rates, margins, balance sheet indicators);
- budgeting/ strategic planning;
- implementing new products and their impact on the results;

- analysis/approval of assets and liabilities management policies and risk limits.

The structure of decision flow in an ALCO meeting can be represented in the below graphic:

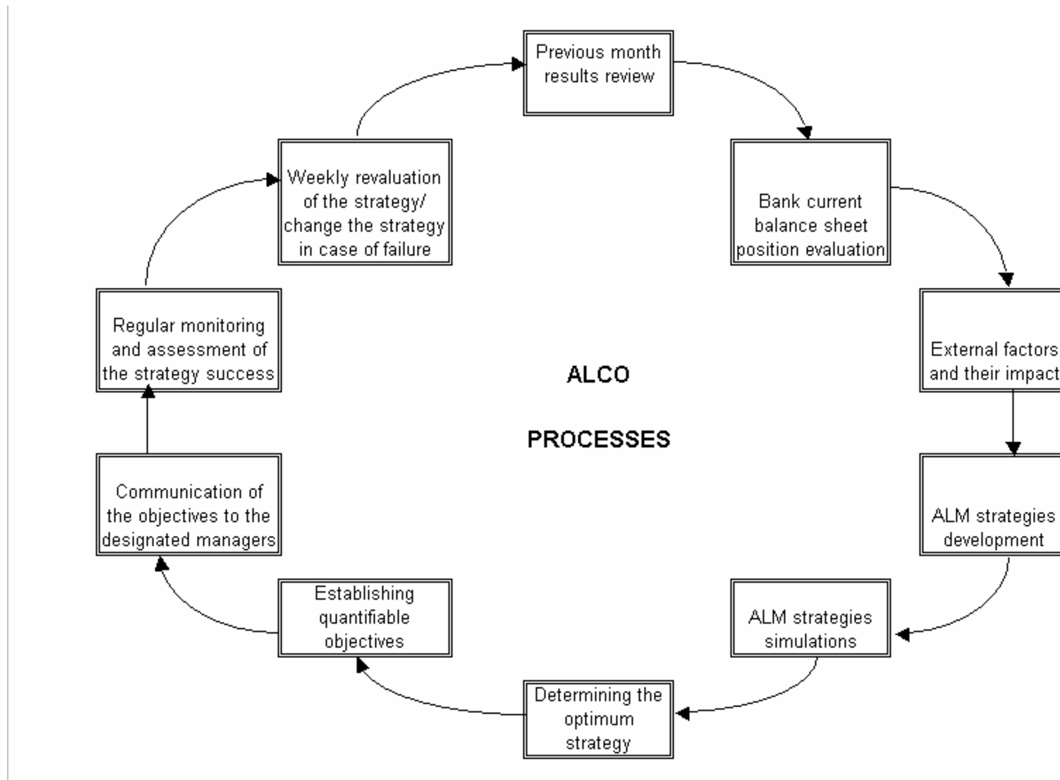

Figure 2. *The structure of the ALCO decisions flow*

Taking into consideration the importance of the activity, the necessary information for adopting the ALCO decisions is of a great extent. Thus, the most common informational needs of ALCO are:

- information regarding the interest rate risk – gap reports, simulations, duration analysis, Value-at-Risk;
- present, past and forecasted financial situations;
- profitability reports by products, units, clients to identify the activity areas that must be stimulated or excluded;
- analysis of net interest margin dynamics;
- analysis of financial-economic activity, based on balance and profit and losses account: profitability, liquidity, capital adequacy;
- reports regarding the liquidity position of the bank;
- reports regarding the evolution the bank's financial position comparing to the budgeted/forecasted one.

3. Conclusions

The frequency of ALCO meetings is very important in achieving of the established purposes. Without trying to offer a solution, the specificity of the financial markets and of the bank activity seldom impose more often meetings and adopting new strategic decisions. Hereby, a banking institution that has a stable level of the balance sheet and a well defined mix of products, without a market maker activity in derivatives field or with a reduced portfolio of transacted securities, can be managed by annual or quarterly ALCO meetings. As far as the market is more volatile and the activities of the bank are more exposed to risks, meetings should take place weekly or twice a week.

References

Sinkey, J.F. Jr. (2002). *Commercial Bank Financial Management – In the Financial-Services Industry,* 6th Edition, Prentice Hall

Steiner, R. (1997). *Mastering Repo Markets,* Prentice Hall

Uyemura, D.G., Van Deventer, D.R. (1993). *Financial Risk Management in Banking – The Theory & Application of Asset & Liability Management*, McGraw-Hill

Zenios, S.A., Ziemba, W.T. „Handbook of Asset and Liability Management”, *Handbooks in Finance*, Volume 1, Theory and Methodology, Elsevier, 2006

Zopounidis, C-tin (2002). *New Trends in Banking Management*, Physica-Verlag