



Three Steps to Successful Interest Rate Risk Management

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As we emerge from the lengthy economic crisis and regulators continue to pile on the requirements, interest rate risk management should be at the forefront of ALCO agendas for banks of all sizes. In talking with bankers around the country, I find that this is still an overlooked area in many banks. However, by incorporating the following three aspects of interest rate risk management into your bank's asset/liability management process, you will find that your ALCO meetings are more focused on decision making, essentially becoming mini-strategic planning sessions:

- 1) Longer-term net interest income simulations.
- 2) Bank specific deposit assumptions.
- 3) ALCO meetings that focus on forward-looking strategy development.

Measuring Long-Term Earnings at Risk. There is often confusion as to the best measurement of longer-term interest rate risk. Regulators have a bias toward the economic value of equity (EVE) analysis. However, EVE tools generally have significant limitations in their ability to accurately reflect the risk profile of the bank. EVE analysis is, at its foundation, a liquidation calculation and does not account for replacement assumptions on results. This is a key factor in determining risk exposure. What's more, the assumptions utilized for non-maturity deposits have a profound impact on the results. Lastly, an EVE analysis may point out that there are structural mismatches embedded within the balance sheet while not providing any indication as to the timing or degree of the mismatch exposure.

Net interest income (NII) earnings simulations provide the best measurement of the risk profile of the bank. However, NII modeling is dependent upon the reliability of the underlying assumptions used in the model process as well as the utility of the rate scenarios examined.

Many bank asset/liability managers, whether out of habit or due to regulatory recommendations, focus their NII analyses on interest rate *shocks*. These rate shock analyses are intended to reflect both *instantaneous* and *permanent* movements in interest rates. Shock analyses are more

representative of *stress testing* scenarios rather than likely scenarios upon which to gauge interest rate risk exposure.

A more realistic interpretation of how rates will move is the modeling of interest rate ramps. These interest rate ramp models reflect increases and decreases over time along with the movements in both a parallel and nonparallel fashion, i.e., flattening, steepening, or twists.

An effective ALCO will run a multitude of rate models including scenarios for regulatory compliance, assumptions support and strategy development. The analysis of these various scenarios will help the bank asset/liability manager assess which alternatives are the most critical focus for decision-making purposes. When looking at these simulations, it is most effective to review measurements over a longer-term horizon.

The arguments I am most often faced with when recommending this longer horizon is “*anything beyond a year is unrealistic*” and “*too much can change, my income won’t look like that in five years.*” When faced with these arguments, it is important to keep in mind that IRR modeling is not a budgeting exercise. The goal of interest rate risk management is to **identify** exposure to changes in rates so that the bank asset/liability manager can determine the optimal risk mitigation steps to recommend. To have the best information, the bank’s ALCO must see a greater time period than one or two years. A five-year simulation allows cashflows, assumptions and rate movements to fully play out, thereby clarifying the near-term managing horizon and long-term planning horizon risk exposure.

Institution-Specific Assumptions. The results of the simulations that are run by the A/L manager are only as reliable as the quality of the model’s underlying assumptions. Moreover, the assumptions that produce the biggest impact on results are those relating to non-maturity deposits, although these assumptions are difficult to accurately support. It takes a significant commitment of time and resources, large amounts of historical data, and quantitative and qualitative analyses just to get results which are, as the name *assumptions* belies, not 100% correct.

The regulatory trends toward *institution-specific* deposit assumptions have led many a bank to migrate down the deposit study path, either by preparing one internally or seeking third party advice. However, much like snowflakes, no two deposit studies are exactly alike. Much is dependent upon certain factors such as the type of historical data; i.e., detailed or call report, the degree of qualitative analysis incorporated into the study, and terminal life assumptions. Qualitative analysis factors generally include market conditions, bank practices and customer behavior expectations. Terminal life assumptions assign a *maturity* to a non-maturity account.

It is critical that the bank’s ALCO understands the methodologies of the deposit study and can explain the origin of the results. Yet the results are only a starting point. Deposit studies can provide reliable assumptions for sensitivity betas, average lives and core balances that can be included in interest rate risk and liquidity risk analyses. However, in order to truly understand the impact these assumptions have on the deposit study results, it is important to run alternative simulations, or stress tests, to quantify the impact of being wrong as well as determining those assumptions that have the most profound impact on the bank’s results.

The more the bank's ALCO understands about the deposit base which, for most community banks, is the largest funding source on the balance sheet, the better equipped they are to proactively manage customer behaviors and liquidity needs. What's more, this knowledge will allow bank management to gain a better understanding of the key drivers of interest rate risk sensitivity.

Gone are the days of default or *canned* assumptions. Accordingly, the bank's ALCO should take advantage of this opportunity to not only develop stronger assumptions for their interest rate risk modeling process but also gain a better understanding of the source of those funds, their customers.

Strategy Development. What value do long-term interest rate risk simulations and bank-specific deposit assumptions have if the results of these analyses sit in the CFO's desk drawer? Other than checking off a box on a regulator's checklist – none. The reason bank asset/liability managers undertake these tasks on a monthly or quarterly basis is to provide bank management with the information upon which to make the right decisions at the right time. Yet it is striking how many banks never discuss risk mitigation or earnings enhancement strategies during their ALCO meetings.

ALCO, at its most effective, should act as a strategic planning session, where members discuss issues facing the bank, including risk measurements, interest rate risk, liquidity and capital exposures. The bank's ALCO can use these assessments to weigh the risk and rewards of potential strategic alternatives aimed at managing the bank's interest rate risk while optimizing the bank's earnings potential.

With the overwhelming amount of data that comes from the ALM modeling process, it can be a challenge to sift through all the results to find the key scenarios upon which to focus the ALCO discussions. Once the bank's ALCO determines the risk exposure of the bank, the arduous process of how best to manage the various risks will be at the forefront of ALCO's discussions.

There is no one right answer when it comes to managing your bank's balance sheet. However, the wrong answer could have serious consequences for years to come. Accordingly, it is important to model potential transactions prior to their implementation. It is also critically important to document each strategic alternative identifying what its intended outcome is, what the potential risks associated with that transaction are, and how the transaction relates to interest rate risk, liquidity and capital.

The ALCO decision making process should never be reactionary. Furthermore, risk management decisions should always be discussed with the key personnel involved. These discussions should address the modeling results, stress-testing and the documentation tools for all aspects of the risk management process, including IRR, liquidity and capital.

Final Thoughts. By implementing these three aspects of a sound risk management process, you will be arming your bank's ALCO with the tools they need to effectively manage the risk profiles of all aspects of your bank's balance sheet. Following these steps, ALCO will be able to position itself to benefit from the next rate cycle, have a better understanding of the depositors

and how they will behave when rates begin to rise and what steps to take to proactively manage the balance sheet, rather than letting the balance sheet manage them.

The road to effective decision making is a challenging one. However, for those who take the time to put together a process that turns data into information and information into action, the future will remain bright.

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This article first appeared in the November 2014 issue of Bank Asset/Liability Management, a monthly publication of A.S. Pratt & Sons Group.

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