White Paper

ALM: Manage Your Interest Rate Risk From the Bottom Up

Use asset and liability management (ALM) software and effective business practices to manage interest rate risk.

As a credit union leader, you'll have to agree that interest rates are dynamic and can have a lasting and intense impact on financial institutions. With the possibility of such impactful effects, the days are gone when credit union executives can plan by the seat of their pants. The risk is too great, and the results vary too much based on different scenarios that may occur. Along with the management team, the National Credit Union Administration (NCUA) requires that directors of the credit union understand the risks found in depository institutions, including interest rate risk.

Today's technology enables credit unions to more accurately and effectively manage interest rate risk using a combination of asset and liability management (ALM) software and effective business practices.

This paper will help credit union executives test their readiness for an ALM solution, select the most valuable features of ALM software, and then use it correctly to help effectively manage, mitigate and control interest rate risk. After reading this paper, you will also have a number of practical ideas to assist in evaluating your risk exposure as well as potentially increase your income. Most important, you will understand the critical need for a cohesive strategy to plan for the inevitable rise in interest rates.

Interest rates have been at an all-time low, and the only place to go is up. The question is how much and how frequently? If rates continue to stay low, credit unions are in the long-term position of having to manage low net yields.

As rates rise, the net yield will be squeezed even further. In other words, as rates start to rise, many of the loans in credit unions' portfolios will be at low rates. Members may not be in a hurry to pay off low interest rate loans or borrow at higher rates.

To compound this problem, lenders must wait for investments to mature or receive a penalty for early withdrawal before they can purchase new ones at higher rates. This combination means that credit union assets could be slow to generate new revenue from the higher rates. On the share side, however, members want to see their rates increase, thus the strain on net yields.

So what do you do? Regardless of your credit union's size, there are several things you can do using ALM software and related business processes to help plan and prepare for changes in rates and other market conditions.

Increase Your Awareness of Risk Exposure Using ALM

Every credit union takes risks as part of doing business, and many successful credit unions regularly use ALM tools to help evaluate their risk exposure. Following are some significant controllable risk types that can affect the total level of risk exposure to a credit union's financial position. ALM tools can help credit unions evaluate–and mitigate–each of these types of risk by creating scenarios that predict multiple outcomes.

Interest Rate Risk: The changes in the market interest rates that impact financial performance. As rates rise, you can lower your risk by not purchasing long-term investments. Instead, purchase short-term ones that will allow you to take advantage of increasing rates. A good ALM product should allow you to perform scenarios of short-term investing versus long-term with rate shock scenarios.

At the same time, try to hold off as much as possible before increasing share rates. Remember that a change in regular share rates results in an instant increase in cost of funds, while increases in loan rates will take some time before you feel the full impact. The good way to see this impact is by using the modeling portion of your ALM system. It should take into account the average life of loans, investments and shares, and use those in conjunction with proposed rate shifts to show how income will be affected.

For example, the screen on the next page shows a used auto loan type that had a beginning balance of $1,170,000 at 3.65 percent and an average life of 36.75 months. Taking into account a 10 percent annual growth rate with all new loans coming on at 7.5 percent, you can see that even after five years the weighted yield has only reached 7.1060 percent.

Liquidity Risk: Decreased liquidity is the potential that current loan and/or deposit withdrawal demands will exceed the availability of liquid assets. Exposure is reduced by managing the maturity of investments, also called laddering, to match potential member borrowing and/or withdrawal requests. Increased liquidity risk is when the credit union cannot lend money to keep up with deposits or repayments of loans. Earnings are decreased as the credit union has to invest these funds in lower interest rate investments. Your ALM tool can help with this matching by examining the detailed cash flow reports along with forecasted balance sheet and income statements.

Credit Risk: The risk that the quality of the loan portfolio will be impaired. Delinquency control is the ticket here. However, layoffs in your field of membership can also impact credit risk. Once again, use your ALM tool to see the impact of increased delinquency by changing delinquency percentages and loan write-offs to see the possible impact on net income.

Concentration Risk: The exposure associated with inadequate diversification of the investment portfolio or concentrating loans to a particular product, risk profile, geography, individual borrower, or other factor. For example, excessive concentration on a particular product can be disastrous if conditions related to that product deteriorate (for example, taxi medallion loans). Credit union management and the Asset/Liability Management Committee (ALCO) should regularly review the investment portfolio to make sure that investments are appropriately diversified among multiple institutions. For example, credit unions should not keep all their investments in their corporate credit union. Some ALM tools have an optional investment portfolio management system that can help you track investment maturities (laddering) and help track concentration risk. Every credit union's philosophy should be to remain prudent in efforts to control risk, and today's technology helps enable advanced planning for these possible eventualities. You cannot eliminate risk, but you can mitigate and help control it by being prepared.

Explore Other Income and Cost Savings Opportunities Using ALM

Since net yields will likely continue to be low, it is important to consider other ways to increase income. Your ALM tool can also help you evaluate opportunities by easily creating assorted revenue scenarios. Following are some examples:

Be creative when looking at where you can generate income and what that increase could mean. Considering increases in fee income? Your modeling program can help you see not only the impact of new or changed fees, but can also help you determine what fee levels you may want to charge.

Examine the programs you offer and analyze what your members use and how much they pay for them. If you find that many members are paying for a service that only a few members use, consider changing the offering so that members who use it also pay for it. After all, it's not fair for members who do not use a product or service to have to subsidize it. This is a good example of how credit unions must integrate all of their available information to effectively manage assets and liabilities.

Interest Rate Risk Model

New | Split Wizard | Default | Delete | Calculate | Print | Find | Help | Exit

Review | Basic Info | Assumptions | Forecasts

Month/Yr	New Balance	Income	Rate	Repricing Amount
Jan	$1,179,937.05	$3,778.28	3.7863	$31,836.73
Feb	$1,188,912.45	$3,556.84	3.9146	$32,107.13
Mar	$1,198,849.50	$4,097.58	4.0411	$32,351.36
Apr	$1,208,466.00	$4,117.50	4.1620	$32,621.76
May	$1,218,403.05	$4,279.86	4.1528	$32,883.43
Jun	$1,228,019.55	$4,292.40	4.2694	$33,153.82
Jul	$1,237,956.60	$4,589.24	4.3825	$33,415.50
Aug	$1,247,893.65	$4,741.45	4.4915	$33,685.89
Sep	$1,257,510.15	$4,731.90	4.5957	$33,956.29
Oct	$1,267,477.20	$5,036.26	4.6969	$34,217.96
Nov	$1,277,063.70	$5,012.70	4.7937	$34,488.36
Dec	$1,287,000.75	$5,322.08	4.8877	$34,750.03
Yr 2	$1,404,001.50	$79,212.30	5.8873	$420,245.14
Yr 3	$1,521,322.80	$95,299.08	6.4976	$458,449.47
Yr 4	$1,638,323.55	$108,583.85	6.8732	$496,758.47
Yr 5	$1,755,324.30	$120,577.75	7.1060	$534,862.79

Used auto loan forecast example showing slow yield increase. This is a good example of how long it can take loans to increase in yield compared with a change in regular share rates that increase your cost of funds immediately.

Examine the performance of each product or service you offer. Look at the direct income (income that is generated by that product or service that would go away if the product did) and direct expenses (expenses incurred because you offer the product). Also analyze indirect income or expenses, such as management compensation, not directly related to the product and assign appropriate portions of these expenses to products. If you find that the income or expenses are not at effective levels, use your ALM tool to create "what if" scenarios based on various changes to your products and services.

Selecting an ALM Solution

Everyone must understand that no institution is immune to changes in outside rates and other market conditions. With change occurring at a much more rapid rate than before, institutions can no longer afford to produce a budget model only once a year. For this reason, your board of directors and management should think of your ALM solution as a key decision-making tool. An ALM tool can interactively project different scenarios during board meetings or planning conferences so that participants can see the possible impact some of their decisions almost immediately.

If you are currently thinking about making an investment in a new ALM system, you may find your product options confusing. Focus on selecting one that is easy to use, can manage different types of risk and scenarios, is scalable and can track your progress toward your credit union's goals.

Ease of use is important. It will determine how quickly and often employees work with the tool. However, a good ALM tool should still allow you to create as complex a scenario as you wish. It should have the capability to manage different types of risk. It should take into account balance sheet risks, including the ability to extend or contract payment and maturity streams. For example, as interest rates climb, members typically will not be as eager to pay off loans early. The ALM software should show you the results of maintaining old loans at lower rates and adjusting historical repayment rates.

ALM software should also easily shift rates by product or related product groups, including tying products to an index. It should provide an easy way to model interest rate changes. For example, it should be able to increase rates on all non-certificate share rates by 25 basis points and have the ability to tie loan or certificate rates to an index, such as the Prime Rate, so shifts in the index automatically shift product rates tied to that index.

ALM software should also have cost analysis capabilities to help you examine the direct and indirect income and expense for each product or service you offer. This provides you the ability to analyze the viability of current and prospective offerings and also the effects of various adjustment scenarios before you make changes.

Finally, the tool you select should help you establish, track and manage your goals. This means it should include the ability to examine historical data for trends, examine current data for strengths and weaknesses, and compare current data to the goals you have established.

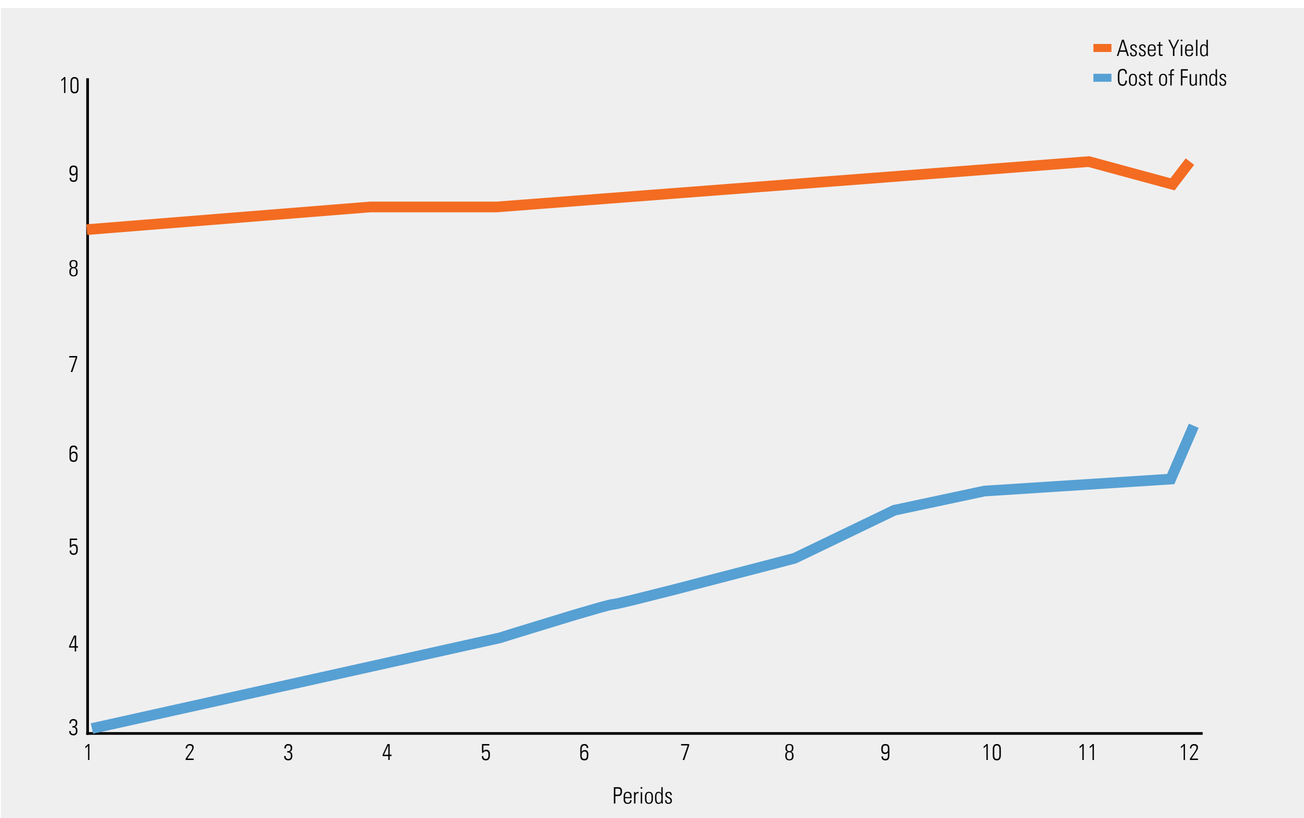
If you keep the results you wish to achieve in mind, the right ALM solution for your organization will come into focus quickly.

ALM Is More Than Technology

There are some things to consider if you wish to make the most effective use of your ALM tool. Be sure to have documentation of past decisions available. This information creates a usable history from which to understand potential impacts and fine-tune assumptions for future scenarios. Your ALCO should meet and review the results of these past decisions as well as possible future scenarios.

Don't have an ALCO? Establish one. We have often observed credit unions both small and large that have failed to establish an ALCO, which is one of the most important committees comprised of board and management. Their job should be to examine what is going on both within and outside of the credit union and to make recommendations for required changes. The group should meet at least monthly or more often as conditions warrant. Conditions can change far too rapidly to meet quarterly or less.

Asset Yield and Cost Model



Example that shows slow asset yield increases while costs of funds escalate sharply as share rates rise.

Train the ALCO members on how to use your ALM solution and analyze its output. The return on the time and money you spend educating board and committee members will likely come back to you many times over in the results. During regular meetings, your ALCO and management team can use your ALM tool to run multiple scenarios, examine the results and see potential impacts immediately. By doing this, committee members are better able to understand different scenario results and can then make better, more informed decisions and recommendations.

Some people have a difficult time getting used to forecasting without concrete information. Don't let this stop you. In fact, lack of firm information provides a more compelling reason to perform multiple forecasts. For example, run a report from your core system showing member loan pre-payments and early payoffs. Then, create a scenario using a long-term (such as 13-month) average of loan repayments by loan type. Use this to compute loan turnover (the length of time it takes for a particular loan type to pay off and refinance), which can help with forecasting future loan repayments. Your ALM tool should allow you to extend or contract payment streams based upon the interest rate scenario you project.

You can also potentially gather deposit and withdrawal history from your core system to create scenarios for items such as non-certificate shares. For certificate shares, look at detailed maturity schedules. Also take early withdrawal penalties into account to help determine the rate shift threshold where members might cash in a CD early to take advantage of higher rates.

As you can see, using an educated guess based upon factual information is far better than doing nothing, and using an ALM tool–and possibly a full ALM solution–helps make forecasting more accurate and effective. If you want to accelerate your learning curve, consider the training options that your ALM provider offers. These options should be accessible in different formats, such as online training, classroom settings and detailed written materials.

Net Economic Value (NEV)

Net Economic Value (NEV) is another critical component of ALM that should not be overlooked, nor outsourced where your credit union is treated like a “national average” instead of the unique credit union that you are. Forecasting NEV is a critical component of a sound ALM system. NEV modeling illustrates the value of your balance sheet in various rate environments. It should include a no-shock base scenario as well as upward and downward rate shifts. Regulators expect NEV to be used, and the board and ALCO need to understand it. It’s imprudent to develop significant balance sheet strategies without understanding the impact on NEV. An effective ALM system should allow you to create an unlimited number of scenarios to project the impact of rate changes, portfolio balance shifts and changing product mix on NEV.

ALM Can Help You Prepare for Almost Anything

As you know, rates will change. When they do, you must already be armed with a cohesive strategy. Besides interest rate risk, there are many other risks that good ALM software can help you mitigate, including concentration risk and liquidity risk. Don’t wait for a problem to arise or for your examiner to tell you that you should be using ALM software. Every credit union should proactively use an ALM tool to help predict multiple rate scenarios and manage their goals. But remember that it’s not all just technology. You have to analyze and potentially change some business processes so you can spend your energy capitalizing on income opportunities you identify and planning strategies to handle your forecasted scenarios.

With a proactive approach, creative thinking and the right tools, your credit union should be able to sail through any economic storm.

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414-16-29446-COL 03/16