

# CU-ALM REPORT

FEBRUARY 2004

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## THE ROLE OF INCOME SIMULATION

**I**ncome simulation has some unique characteristics that make it a valuable tool in measuring and anticipating the impact of interest rate risk (IRR) when interest rates fluctuate. It is the only forecasting tool out there that actually estimates Net Interest Income (NII) and Net Income (NI) in future periods. It is distinctive from NEV/Market Value Analysis in that income simulation assumes a going concern outlook. In other words, the credit union will continue to operate in future periods, whereas NEV/Market Value Analysis values the credit union's assets and liabilities at a specific point in time, and ignores the effects of any future operations. Income simulation assumes that loans will be paid off and new loans will be made; that shares will be withdrawn, and new shares will be deposited; that fees will be earned; and operating expenses will continue to accrue and be paid. As we sit here in February 2004, with rates at near 50-year lows, doesn't it make sense that we would try to forecast how the credit union's NII and NI will fare when rates increase? These should be numbers that every CEO is clamoring for.

The mechanics of income simulation are simple. Using simple arithmetic and algebra, estimates are

made for future periods of loan and investment income, and dividend and interest expense on shares and deposits. These estimates are based on assumptions that are made taking into account all of the optionality embedded in the balance sheet such as loan prepayments and nonmaturity shares duration. Yes, we have to rely on assumptions; but a forecast based on well-thought-out assumptions puts us light years ahead of where we would be with no forecast at all. Having forecasted interest income and interest expense for a future period, simple arithmetic gives a forecast of NII. Fees and operating expenses can also be estimated and applied to the model giving a forecast of NI. Run the model in a base-case scenario, and then apply a rates-up shock to determine the percentage of NII and/or NI that would be at risk given the facts of the scenario. Income simulation can give reasonable estimates as far out as three years. Many credit unions see their balance sheet repriced almost fully in a three-year time frame.

Accordingly, for many credit unions, the bulk of their IRR lies in the first two to three years and will be captured and forecasted using a two- to three-year income (... *continued on page 2*)

## ECONOMIC OUTLOOK :

### Chairman Greenspan's Report to Congress

**H**ere are some highlights from Chairman Alan Greenspan's Semiannual Report to the Congress which he made on February 11, 2004.

- ♦ Expect sustained robust economic growth and low inflation in 2004.
- ♦ U.S. exports posted solid increases in the second half of 2003.
- ♦ Monetary policy remains accommodative. Financial conditions for businesses are quite favorable.
- ♦ The ratio of household net worth to disposable income increased after three consecutive years of decline.
- ♦ Federal spending and tax policies are slated to remain stimulative.
- ♦ Prospects for sustained high rates of increase in productivity are quite favorable.
- ♦ Economic expansion will continue at a brisk pace.
- ♦ Real gross domestic product will grow at 4½ to 5%.
- ♦ Further gradual decline in the unemployment rate to between 5¼ and 5½% in the fourth quarter of 2004.
- ♦ Rapid increases in productivity likely to be sustained.
- ♦ Inflation will remain quite low this year.

You can view the entire Greenspan Report by logging onto the Federal Reserve Bank website:

<http://www.federalreserve.gov/boarddocs/hh/2004/February/ReportSection1.htm>

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## BIG BANK MERGERS AIM FOR THE CONSUMER MARKET

*"Bank of America Corp. is making a \$43 billion bet on the U.S. consumer."*

**T**hat's the lead line in the October 28, 2004 issue of *The Wall Street Journal* in its front page story reporting on the purchase of Fleet Boston Financial Corp. by Bank of America. The gigantic merger will create the nation's second largest bank with almost \$1 trillion—that's not a typo, folks; that's T as in Trillion—in assets. Those assets will be supported by 5,669 branches and a correspondingly high number of ATMs. The staggering number of branches controlled by one bank is put into contrast when you realize that there are barely 9,900 credit unions currently operating in the entire United States. A second blockbuster bank merger, even larger than the Bank of America merger, took place in January 2004, when JPMorgan Chase and Bank One agreed to merge.

Both of these incredibly large mergers appear to be driven by the desire of money center banks to penetrate the consumer market. During the last decade of the 20th Century, as large money-center banks saw the profitability of their corporate

customers decline, they discovered the consumer. The growth and increased profits of the banking industry during the 1990s were fueled in large part by growth in the consumer services sector of the business. This is a complete reversal of the age-old adage repeated for decades by bankers that "consumer accounts and consumer loans are not profitable."

There are many knowledgeable Wall Street veterans that anticipate additional big bank mergers and also mega mergers between banks and financial service corporations such as brokers and insurance companies. Our concern, of course, is how will this affect the small- and mid-sized sector of the credit union industry.

Over time, credit unions can anticipate increased competition for consumer loans. Increased competition brings with it smaller margins. If you thought your NII margin couldn't be any smaller, then make yourself a note of your margin (... *continued on page 3*)

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**THE ROLE OF INCOME SIMULATION** (. . . continued from page 1)

. . . simulation. This is extremely valuable information to CEOs, CFOs, ALCOs and Directors. It allows them to make decisions that affect the credit union in the future without exposing the credit union to unnecessary risk.

For example, if the credit union were considering opening a branch office, management would estimate the operating revenues and expenses which would be produced by the branch. In a base-case scenario, this level of forecasted revenues and expenses may be acceptable; however, in an up-rate shock scenario, the additional expenses of a branch may be prohibitive. Knowing this, management could postpone the branch expansion or explore alternatives for accomplishing the expansion goal in a less expensive manner. This is only one example of how income simulation can prove to be important in managing IRR.

Income simulation does have two significant weaknesses:

1. The quality of the assumptions made with regard to prepayment speeds and estimated dividends degrades the farther into the future they are predicted. Some feel that income simulations are not reliable beyond one year.

We disagree; our experience tells us that income simulation has reliability and usefulness out to the three-year range. Obviously, the forecasts for years two and three will be less reliable than that for year one. Forecasts beyond three years using income simulation typically would not be considered reliable and would not be used. Therefore, income simulation will not measure IRR that may occur beyond year three. This is significant if the credit union has large amounts

of assets (either loans or investments) and/or liabilities/shares whose durations exceed three years.

2. Income simulation does not account for the value of assets using market prices. Therefore, when using income simulation, the forecasted values of assets may be overstated or understated. If the credit union is considered a going concern and has adequate capital, this weakness can be tolerated in light of the fact that ultimately assets will settle at their contractual values when they mature or are called. Any fluctuation in the market value of assets or liabilities can be considered temporary. For credit unions that hold AFS loans or investments, the model should accommodate the variation in value.

Who should use income simulation? We believe that all credit unions can benefit from a periodic income simulation that models a base-case, rates-up and rates-down shock. In addition, most if not all credit unions could benefit from the modeling and budget process to forecast and control revenue and expenses in a most likely scenario where rates don't always move in a parallel manner and the rate shock is phased in gradually rather than instantaneously.

An ideal situation would be a combination of income simulation and NEV/Market Value Analysis. Next month's *CU-ALM Report* will treat the NEV/MVA approach to IRR valuation. The management of the credit union needs the outlook provided by both methodologies to evaluate the credit union's IRR and prepare for future operations. ☞

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We look forward to hearing from you!

**NAME THE NEWSLETTER  
CONTEST WINNER**

**T**hank you for the tremendous response to our Name the Newsletter Contest. We had a difficult time choosing from among many excellent suggestions. The name that we have selected, as you have probably already noticed, is *CU-ALM Report* offered by Jerry Hickman, CEO, of Quimper Credit Union in Port Townsend, Washington. Congratulations go to Jerry for his imaginative suggestion. Jerry's prize is a \$100 American Express Gift Check.

Thank you again for all of your responses. ☞

**THE ROLE OF  
*CU-ALM Report***

*CU-ALM Report* is a publication that contains opinions, articles, and insight into many facets of credit union operations. At times it offers suggestions in the decision making process. We are not registered investment advisers and our suggestions tend to be general in nature. While we are happy to share our insights and thoughts with our readers, it is important to understand that the responsibility for implementing the ideas or strategies suggested in these pages rests solely with the credit union's management. ☞

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**Big Bank Mergers Aim For the Consumer Market** ( . . . continued from page 1)

. . . for 2003 and file it away. Every couple of years, pull that note out and see what has happened. I'll bet you lunch that in the next few years your NII margin will compress even more than it has already. Smaller NII margins will always have a negative impact with regard to Interest Rate Risk (IRR). The less interest margin there is to work with, the greater the impact of IRR. It is a law that is as inviolable as the law of gravity. It simply points to the fact that in the future, as in the past, the net interest margin will support an even smaller part of the operations of the credit union.


Credit unions must learn to recover the costs of providing nonlending services in ways apart from interest income. A reasonable fee structure that requires members who use the services to pay a reasonable fee, based on the cost of providing the services, will be a solution. For

decades, the borrowers at credit unions paid for everything. Now they are getting their revenge. Future borrowers will insist on rock-bottom loan interest rates that will come with an even greater level of competition brought about by these mergers. There will be no room in those rock-bottom rates to subsidize other credit union services.

Okay, here's some good news. Our experience is that large money-center banks charge outrageous fees for simple services that credit unions can provide to their members less expensively. Our recent informal survey showed the following:

	<u>Big Bank</u>	<u>Credit Union</u>
The charge to pay an overdraft check . . . . .	\$30	\$20
The charge to post an incoming wire transfer . .	\$10	\$0

These are only two examples of the outrageous fees charged by banks in order to bolster their bottom line. Working under this high fee structure, credit unions should be able to impose a reasonable and fair fee structure that allows them to recover their costs of providing services to those who use them. What could be more fair and equitable than having members pay for the services they use and not pay for the services used by others?

This on-going transformation from an interest-driven industry to a fee-driven industry will occur subtly. You may not notice a lot of change from quarter to quarter; however, over the past decade the percentage of gross income derived from fees has increased by almost 100%. This trend will continue into the future. If you yearn for The Good Old Days, you should consider retirement. Those days are never coming back! 

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