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## Fixed Income Investing in Uncertain Times

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Over the past six years, the Fed has implemented an *unprecedented and very aggressive monetary policy* – combining zero interest rates (ZIRP) with Quantitative Easing (QE). Unquestionably, these policies have had a major impact on asset valuations, volatility and risk sentiment. Equity markets are at all-time highs while bond yields and spreads continue to plunge, confounding many investors. Plus, QE3 (or *QE infinity*) is coming to an end and many expect the Fed to hike interest rates starting in 2015.

How can credit unions be successful and what tools are available to them?

The current environment has created a dilemma for credit unions. On one hand, many fear, and are being told, that higher rates are coming. The often, *but wrongly*, predicted bear market is just around the corner. They are reluctant to invest and have remained in low yielding reserves. Others are wondering how to maximize income and margins without accepting inappropriate risk. Some may be *pushing the envelope* in an *imprudent* stretch for yield.

In light of the current environment, how can credit unions be successful and what tools are available to them?

### Scenario Analysis: Five Ways BondEdge Can Help

Sound risk management policies and tools are the keys to success. Let's take a look at how quantifying risk and enhancing return using the *scenario analysis module* of the BondEdge, *Best-in-Class*, \* fixed income analytical platform can help.

\* Named "Best-in-Class" by the CEB TowerGroup Portfolio Modeling and Risk Analytics Technology Assessment

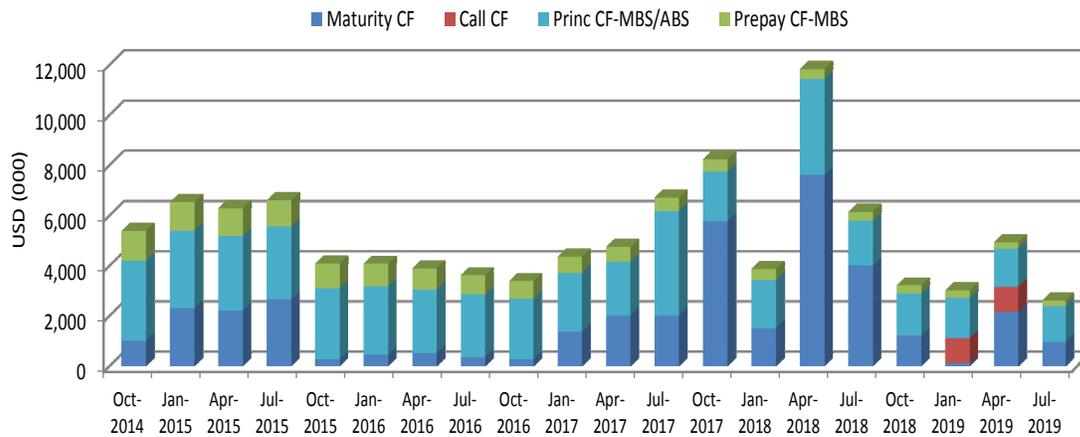
#### 1. Running Scenario and What-If Scenario Analysis

Using the scenario analysis module of Balance Sheet Solutions' BondEdge risk platform, credit unions are able to project price, income and total returns for individual securities, sectors and portfolios using multiple *parallel or non-parallel interest rate scenarios*. Using Treasury or swap curves, credit unions can run *instantaneous, aged or probability-weighted scenarios* over any measurement period on an *absolute or relative basis*. In addition to quantifying the projected performance scenario, this analysis helps in identifying and quantifying any *intended or unintended* risk allocations.

## 2. Quantifying Cash Flows

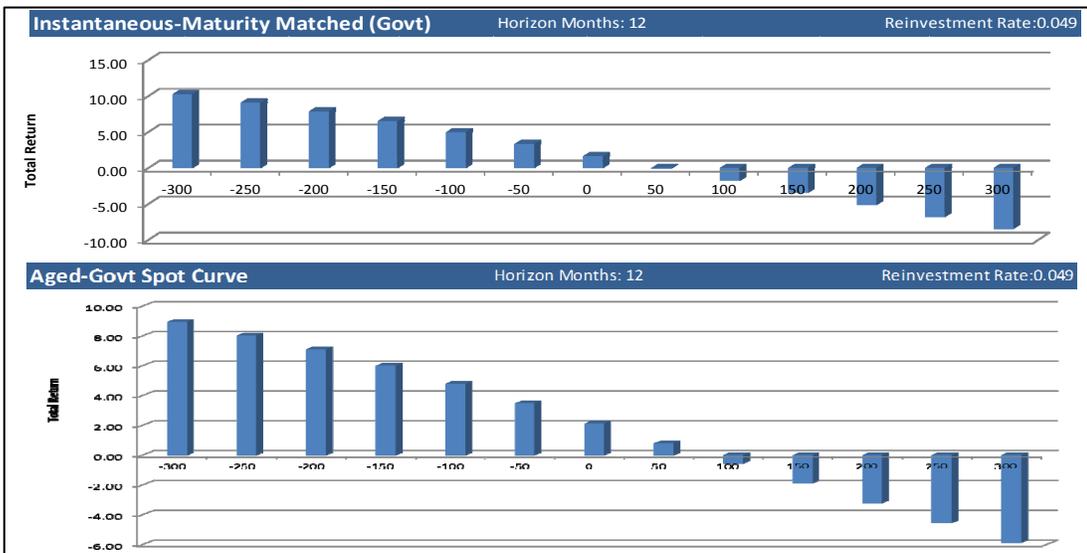
BondEdge can *quantify cash flows* on a static or dynamic basis over any measurement period (i.e. monthly, quarterly, semi-annually or annually). For those credit unions that have significant optionality via short embedded calls or prepayment exposure, understanding the dynamic and changing nature of cash flows (see chart below) is important in liquidity and risk management of the investment portfolio and overall balance sheet.

**Quarterly Cash Flow over next Five Years**



## 3. Scenario Analysis – Parallel Shifts

Currently, many credit unions are in the practice of running *what-if* scenario analysis of securities under parallel shifts over a 12 month time horizon. The typical analysis quantifies what happens to the price and return of securities and the total portfolio if rates decline by say -50 basis points or rise +100, +200 or +300 basis points over the next 12 months. With BondEdge’s simulation module, credit unions are able to pick and choose the specific rate scenario and the measurement period.



For example, consider the Instantaneous (rates are adjusted higher or lower on the first day of the measurement period) and Aged Scenario Analysis (rates are gradually raised or lowered to the desired range over the full measurement period) over a 12-month time horizon.

## 4. Quantifying Yield Curve Risk

Duration is a critical tool in portfolio analysis and risk management, but one should recognize that a *single duration number* is an estimate of an asset's cash flows sensitivity to a change in a *parallel shift* in the underlying yield curve.

Parallel shifts assume that interest rates move by the designated amount as specified by the scenario analysis. For example, in a +100 basis points scenario the analysis assumes that all interest rates, from one-month Treasuries to 30-year bonds, move up by 100 basis points in lock-step over the defined measurement period.

Thus, *parallel scenario* analysis is valuable in portfolio analysis and risk management. However, parallel scenario analysis alone does not provide a comprehensive analysis of the interest rate risk because interest rates *never* move in a *parallel fashion*.

The key point is that the yield curve is *ever changing and can exhibit significant swings*. The changes in the slope of the curve greatly impact the cash flows and risk and return of individual securities, sectors and the overall portfolio. In fact, *two portfolios with identical durations can perform very differently under the same yield curve scenario*.

Total Rate of Return (24 Months)			
	Duration	Flat Yield Curve	No Change
<b>Bullet</b>	4 Yrs.	-2.96%	5.49%
<b>Barbell</b>	4 Yrs.	-1.10%	3.7%
<b>(Dif)</b>		+2.86%	-1.76%

As shown in the table above, a bullet and a barbell portfolio have the same duration of four years. In a flattening yield curve environment, the barbell portfolio significantly outperforms. Conversely, in a *no change* (i.e. steep yield curve environment) the bullet is the better performing portfolio.

Thus, by anticipating movements in the yield curve and structuring the portfolio accordingly, credit unions can attempt to earn above-average returns on their bond portfolios.

## 5. Scenario Analysis – Using Specified Scenarios

To fully exploit the value of scenario analysis, credit unions can run their own scenarios based on a specific interest rate or yield curve view. In doing so, credit unions will be better equipped to both manage intended and unintended risk. From a strategic and tactical perspective, specified scenario analysis is a useful tool that allows credit unions to structure or position a portfolio to outperform based on their outlook.

Please Note: The returns will vary significantly under differing scenarios, but by running non-parallel scenario analysis with specified interest rate scenarios, credit unions are better equipped to quantify the risk/return of their securities and overall investment portfolio.

## More Information

For more information about credit union investment strategy, portfolio allocation and security selection, please contact the author at [tom.slefinger@balancesheetsolutions.org](mailto:tom.slefinger@balancesheetsolutions.org) or 800-782-2431, ext. 2753.

**Tom Slefinger**, Senior Vice President, Director of Institutional Fixed Income Sales, and Registered Representative of ISI, has more than 30 years of fixed income portfolio management experience. He has developed and successfully managed various high profile domestic and global fixed income mutual funds. Tom has extensive expertise in trading and managing virtually all types of domestic and foreign fixed income securities, foreign exchange and derivatives in institutional environments.

At Balance Sheet Solutions, Tom is responsible for developing and managing operations associated with institutional fixed income sales. In addition to providing strategic direction, Tom is heavily involved in analyzing portfolios, developing investment portfolio strategies and identifying appropriate sectors and securities with the ultimate goal of optimizing investment portfolio performance at the credit union level.

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