

New risks emerge every day, fundamentally altering the environment and markets in which businesses operate. To help executives anticipate and manage these risks, throughout 2013, the Society of Actuaries (SOA) will publish a series of "Risky Business Bulletins" to provide insight on critical business issues from industry-leading enterprise risk management (ERM) actuaries. Each Bulletin will explore key areas of risk that need attention as we work to rebuild the global economy.

A Rising Rates Risk Roadmap

Confusion and uncertainty surrounding the future of the Federal Reserve's bond buying program is fueling anxiety about interest rate risk.

While the Fed has decided to keep its bond-buying program in place for now, ending the monetary stimulus campaign is inevitable and threatens to expose financial institutions to a variety of risks that have lain dormant in recent years. While financial institutions continue to play a watch-and-wait game with the economic recovery, Greg Mateja, managing director at Alvarez and Marsal and a fellow of the Society of Actuaries, says it is critical that they understand how interest rate increases could affect their bottom line before rising rates become a reality.

Consider the insurance industry, which would benefit from a gradual rise in interest rates. Mateja warns that such a scenario would have a modest impact on existing assets, allow gradual increases in portfolio yields, restore interest rate margins to their target levels, and provide minimal disintermediation incentives. Insurers are susceptible to significant risk if interest rates rise rapidly, significantly depressing market values of their asset portfolios. For example, a 3 percent rise in rates would lead to an approximately 15 percent decline in the market value of a fixed income portfolio.¹ This decline in market value is at the heart of several risks:

Disintermediation risk results because insurers generally are required to allow policyholders to surrender policies at book value. When rates increase rapidly, competitors may offer higher credited rates, possibly leading policyholders to surrender their policy in search of higher yields. If the original insurer needs to sell depressed assets to support the surrender, it recognizes a loss.

Mitigation Tip:

Insurers can minimize disintermediation risk by establishing liquidity buffers, implementing hedging programs, and instituting a risk limit for rising interest rates as part of their risk framework. Certain product lines, such as payout annuities and disability, generally do not have surrender provisions, and increasing the proportion of such liabilities reduces interest rate risk. Over the long term, regulatory changes and product evolution also may reduce this risk.

¹This example assumes a fixed income portfolio duration of five years.

Interest Rate Risk by the Numbers

\$2.3 trillion

Potential losses to bond market when QE3 ends

7%

Fed's unemployment threshold for scaling back asset purchase program

\$1.1 trillion

Increase of cumulative bond inflows since the 2008 global financial crisis

Source: International Monetary Fund. (2013). [Global Financial Stability Report: Transition Challenges to Stability](#). Washington, DC.

Income and surplus volatility also could result from increased credit spreads. Increased interest rates would make it more expensive for bond issuers to refinance debt or raise capital, possibly putting upward pressure on the issuer's credit spreads and further reducing market values of such assets in an insurer's portfolio.

Mitigation Tip:

Credit risk is mitigated through active monitoring and establishment of credit risk limits. Income and surplus volatility also arise from each company's unique tax position and should be part of risk analyses. On a market value basis, the decreased market value of any debt that the insurer has issued does offset the reduced value of the portfolio.

Increased marginal cost of capital may affect insurers that need to refinance debt or raise capital. In such event – whether it's for new business growth, acquisitions or to replenish surplus from capital losses or disintermediation – debt costs will be higher than they were previously.

Mitigation Tip:

Insurers can mitigate cost of capital risk by establishing capital buffers in response to a suite of stress tests appropriate for their mix of business.

*The process of normalization of global asset allocations has begun, pushing up interest rates and risk premiums as markets shift away from a regime of suppressed market volatility and very favorable liquidity conditions. These changes are creating a host of new challenges for financial stability, leading to higher market and liquidity risks.**

Threats that may result from rising interest rates emphasize the need to engage actuaries to help navigate unforeseen challenges. Actuaries can guide the implementation of a holistic risk management framework that structures risk-taking within the organization's capacity and proactively identifies risk mitigation opportunities. Please visit the SOA's blog [Riskpertise](#) to learn more about what actuaries have to say on timely and relevant industry topics and trends.

Global Financial Stability Map* October 2013 ◆ April 2013 ◆

The Global Financial Stability Map indicates that risks are in transition. While macroeconomic risks remain unchanged overall, the combination of lower risk appetite and higher market and liquidity risks demands a greater focus on interest rate risk.

Risk appetite -1



Credit Risks +0



Emerging market risks +1



Market and liquidity risks +1



Monetary and financial +0



Macroeconomic risks +0



*Source: International Monetary Fund. (2013). [Global Financial Stability Report: Transition Challenges to Stability](#). Washington, DC.

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About Actuaries

Actuaries bring a complex future into focus by applying unique insight to risk and opportunity. Known for their comprehensive approach, actuaries enable smart, more confident decisions.

About the Society of Actuaries

The Society of Actuaries is an educational, research and professional organization dedicated to serving the public, its members and candidates. The SOA's mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business and societal problems. The SOA's vision is for actuaries to be the leading professionals in the measurement and management of risk.