

# Does asset management under Solvency II have to be boring?

The latest version of Solvency II raises the capital bar for riskier assets. Many fear this will force (re)insurers to invest only in the highest quality AAA-rated government bonds. We disagree and believe there are many attractive and interesting asset classes to invest in. However, one must analyse opportunities and consider the new capital requirements.

We have developed a framework for evaluating and comparing investment alternatives on a capital-adjusted basis.

Three observations emerge from our analysis: corporate bond risk is best taken through shorter-duration bonds; active duration postures versus liabilities are encouraged at lower rate levels; and don't rule out local currency (sovereign) emerging market debt, particularly if an insurer has liabilities denominated in emerging currencies.

Historically, many (re)insurers have placed a greater focus on underwriting or liability risks, with assets traditionally playing a smaller role. However, based on a survey of Lloyd's insurance companies that Payden commissioned from the London Business School, over 80 percent of respondents believed that investment results contributed at least 20 percent to the bottom line.

For 20 percent of the respondents, investment results exceeded 100 percent of profits, often making up for underwriting losses. And Solvency II forces a more holistic view, as well as the quantifying of risks in the asset portfolio. Under Solvency II, investments join underwriting

Worried that Solvency II will force investors towards dull AAA-rated sovereign debt? **Justin Bullion, Alverne Bolitho and Erinn King** have other ideas

results in the spotlight, as increased emphasis is placed on their role in managing overall insurer risk and solvency.

We believe that the management of assets under Solvency II may be optimised by embedding capital charge considerations into the investment management process. While the recently released Quantitative Impact Study (QIS5) clearly favours high-quality government bonds, it is important to compare investment alternatives via the haircut to observable yields when considering capital costs.

Available yields for lower-quality assets may provide enough compensation to warrant investment. However, one must

**Justin Bullion** is managing principal, **Alverne Bolitho**, principal and **Erinn King** senior vice president at Payden & Rygel

consider the cost of the additional capital that must be held. At present, there are many rewarding asset classes that may still make financial sense, depending on your cost of capital and risk appetite.

We have developed a framework for comparing fixed income assets on a capital-adjusted basis. In this analysis, we have applied a haircut to fixed-income index yields based on the QIS5 capital charges by asset class, quality, duration, currency, and the individual insurer's cost of capital. The result is a matrix of "capital-adjusted yields" that allows better comparison of investment options.

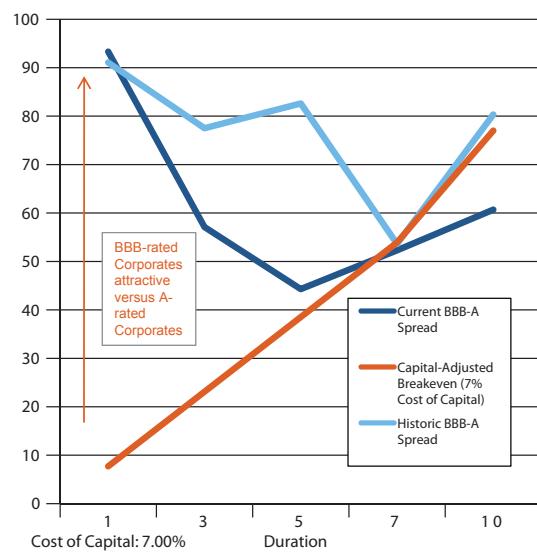
Comparing fixed income on a capital-adjusted basis produces interesting results and trends. While shorter-duration, lower-quality corporate bonds appear attractive on a capital-adjusted basis, the higher capital charges assigned to both longer-duration and lower-quality corporate bonds favours investment in the higher-quality long duration securities.

Chart 1 depicts the current spread between BBB-rated and A-rated corporate bonds and a capital-adjusted breakeven line, which represents the spread at which an investor is indifferent in choosing between the two investment options. When the current spread line is above the breakeven line, the lower-rated corporate bond is more attractive on a capital-adjusted basis. For example, adjusting for capital costs, the chart tells us that three-year BBB-rated bonds are favoured over A-rated bonds (the dark blue line is above the orange), whereas the opposite is true for 10-year bonds. For illustrative

*Continued on back page*

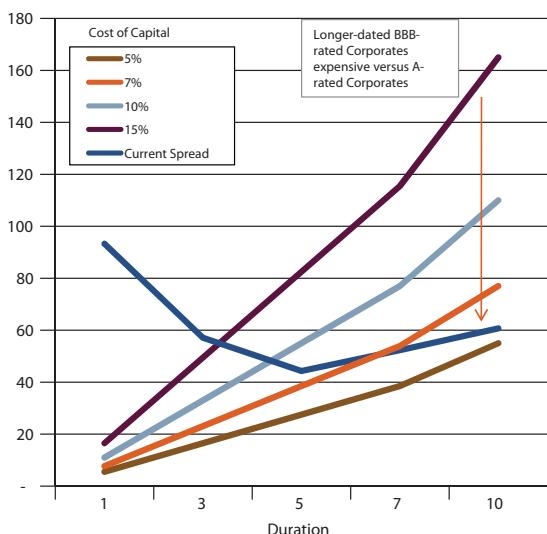
## Lower v higher-rated corp bonds (fig 1)

Spread between BBB- and A-rated corporates (bps)



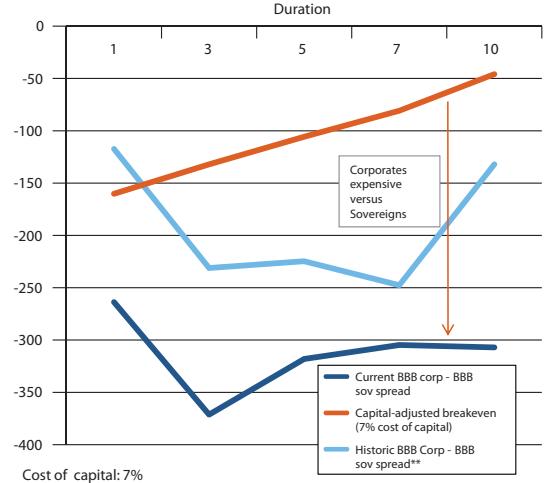
## Capital breakdown curve costs (fig 2)

Spread between BBB- and A-rated corporates (bps)



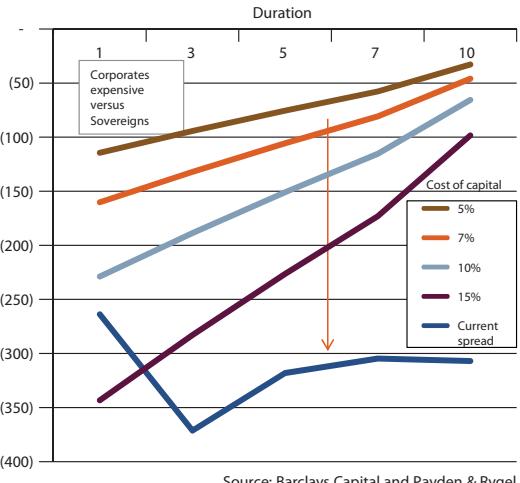
## Corporate v sovereigns (fig 3)

Spread between BBB-rated corporates and BBB-rated sovereigns (bps)



## Cost of capital breakeven curves (fig 4)

Spread between BBB-rated corporates and BBB-rated sovereigns (bps)



purposes, we have assumed a 7 percent cost of capital (see figure 1).

Cost of capital matters, and (re)insurers think about the cost of capital in different ways. For some, it represents the marginal cost to access capital (the yield of a new bond issue) while others feel the broad enterprise's cost of capital, or weighted average cost of capital (WACC), is more appropriate. And although an insurer's bond yield or WACC is not in the Solvency II calculations explicitly, it is crucial to consider this cost when judging investment opportunities.

The higher the cost of capital, the more punitive it is to hold risks with higher capital charges. For higher costs of capital, lower-quality longer-duration corporate bonds become even less attractive, as chart 2 illustrates. It reinforces the notion that, for most capital costs, shorter duration corporate bonds are more advantageous than longer ones (see figure 2).

The QIS5 credit factor is less onerous for sovereign bonds denominated in local currency than for corporates of similar quality, but a currency factor needs to be applied. The generous level of yields in emerging markets leads to a noteworthy comparison with corporate bond options. While many (re)insurers have shied away from emerging market exposure in the past, comparing emerging market bonds on a capital-adjusted basis with similarly-rated corporates proves an interesting exercise.

Even when one considers the additional currency charge that may be assessed if the currency of the liabilities differs from the assets, local currency emerging market debt appears attractive. This attractiveness, combined with volatility in sovereign markets over 2010-11, could lead to a reconfiguration of the specifications to make owning such debt more punitive (see figure 3).

The yield difference between BBB-rated local currency emerging market debt and BBB-rated corporate bonds is so wide that even at higher costs of capital, local currency emerging market sovereign bonds are attractive, especially at longer durations (see figure 4).

Interest rate risk becomes another key market risk to evaluate, with new subtleties. Capital charges are assessed based on the cash flow profile across the yield curve, or "partial duration" difference, between assets and liabilities under both up and down rate shock scenarios.

Given QIS5, interest rate shocks are based on current interest rate levels, i.e., shocks are expressed as a percentage of the then current interest rate, a long duration posture when rates are low requires less capital relative to a long duration posture when rates are higher, even though the risk of rising rates is highest when rates are low.

Solvency II is far from finalised and we anticipate updates and revisions over the coming year. In addition, many (re)insurers are actively creating and seeking approval for their own internal models.

Curiously, our conversations reveal few are prepared to consider the investment implications as yet, as "SII Swat Teams" are busy with other facets of the regulations. Any framework for evaluating assets and liabilities will need to be dynamic and adapt to these changes.

From an asset perspective, we believe that it will be important to consider the broadest opportunity set available and view it on a normalised, capital-adjusted basis, analysing the trade-offs between different investments relative to their capital charges and the insurer's cost of capital. Through this approach an optimal investment portfolio that is also still "interesting" may be created.