Greater tail risk makes for worse cat bond returns than pre-Tohoku

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Cat bond pricing may look as though it is in line with the pre-Tohoku soft market but investors are not being compensated for taking on greater tail risk, according to Lane Financial analysts Morton Lane and Roger Beckwith.

The current portfolio of outstanding cat bonds is priced at an average yield of 4.96 percent, set against an expected loss of 1.83 percent - producing an expected return of 3.13 percent in an average loss situation.

Yields now equate to a multiple of 2.7 times the expected loss investors can make, which has shrunk quickly from 4.1 a year earlier at the end of the third quarter 2012 and from 3.5 at the end of the first quarter 2013.

But the pricing multiple remains in line with the 2.6 figure observed on the cat bond market in February 2011, immediately before the Tohoku quake.

However, even though current prices may seem close to the 2011 soft market, the market is actually less well-priced because investors are not being compensated for added tail risk, the Lane analysts argued in a recent report titled 'Thinking about ILS portfolio risk'.

They highlighted that when a 1 in 250 year risk event occurs, the ILS market can expect to make gross losses of 41.21 percent, or 36.29 percent net of premium income.

This is well above the 36 percent gross loss that would have occurred at a 1 in 250 year scenario in 2011, although it has narrowed from 43 percent earlier this year and 48 percent at the same point in 2012.

Greater tail losses partly reflect an increased concentration of US hurricane risk on the ILS market.

Lane calculated the market's current return per unit of tail risk at $7.59, a figure that shows total returns against the 41.21 percent gross loss that would be made in the 1 in 250 scenario.

This measure of return has dropped drastically from 11.05 percent earlier this year, 13.34 percent in Q3 2012, and is even well behind the 8.76 percent tail-risk return obtainable in the 2011 soft market.

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The analysts compared a couple of potential ILS portfolios and found that investing in only the highest-yielding deals would have created a higher expected return, at 4.72 percent for the top 50 deals compared to 3.13 percent for the market portfolio, but it also brought on a significant increase in tail risk.

The higher-yielding portfolio would lose 69 percent at the 1 in 250 tail risk point, compared to the overall market loss of 41 percent.

The analysts suggested that more modest absolute yields would carry more attractive risk-return tradeoff.

"Better to do those strategies on a financial leverage basis than to just ramp up the high yields," they said.

Lane also provided a gauge of how much a rated reinsurer could have earned from writing the ILS market portfolio and leveraging their capital up to the 1 in 250 year level rather than fully collateralising all potential obligations.

This showed that the advantage of leverage is narrower in the current market.

In the current market, a reinsurer could write $243mn of limit for $100mn of capital based on the expected 41 percent loss from a 1 in 250 year disaster, deriving an expected profit of 7.6 percent.

This is down from an expected profit of 11.05 percent at the start of the year and 13.35 percent in 2012. It is also below the 2011 soft market point when a leveraged reinsurer could have written $278mn of limit for $100mn of capital and produced an 8.8 percent loss.

"Reinsurers love deploying capital in hard markets because of higher premium. However, the market may want to get more risk coverage, so the reinsurer's ability to "leverage" may be more constrained than at other times," Lane wrote.