## Milliman has updated product features and assumptions for the Milliman Hedge Cost Index (MHCI).

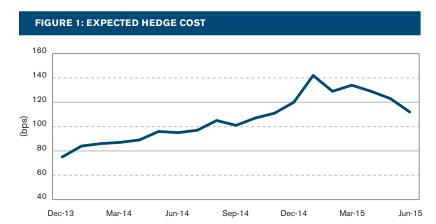
The updated Milliman Hedge Cost Index is 112 basis points as of June 2015.

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Milliman recently completed a review of the design of the Hedge Cost Index and implemented some changes to align product features and assumptions with those prevalent in the VA marketplace. Details regarding this update can be found in the Index Methodology<sup>1</sup> document.

The expected hedge cost for a hypothetical lifetime GMWB block (see Index Methodology<sup>1</sup>) is estimated to be 112 bps as of the end of June 2015, down 11 bps from the previous month, measured on a consistent basis. The Index Methodology provides additional details about the assumptions and methodologies underlying the Milliman Hedge Cost Index.



## **ABOUT THE MILLIMAN HEDGE COST INDEX**

The Milliman Hedge Cost Index™ (MHCI) provides the estimated hedging cost for a hypothetical lifetime guaranteed minimum withdrawal benefit (lifetime GMWB) block, based on product specifications and modeling assumptions as described in the MHCI Methodology Document. The expected hedge costs are calculated using product features for a generic lifetime GMWB in line with product designs common in the market. Likewise, the modeling assumptions are based on typical actuarial and behavioral assumptions widely used by VA writers in the marketplace.

Milliman conducts annual reviews of the product features and assumptions underlying the MHCl and will implement updates to the assumptions as and when appropriate to keep pace with market trends and industry practice.

The Milliman Hedge Cost Index is calculated based on a fixed target volatility assumption and end-of-month swap interest rates as described in the MHCI Methodology Document. As a result, monthly changes in the index are primarily driven by movements in swap interest rates.

FIGURE 2: EXPECTED HEDGE COSTS (BPS OF GUARANTEED WITHDRAWAL BASE)

134

129

123

112

3/30/15

4/29/15

5/28/15

6/29/15

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5

(5)

(6)

(11)

**EXPECTED CHANGE FROM** DATE **HEDGE COST PRIOR MONTH** 12/30/13 75 1/30/14 84 2/27/14 86 2 3/28/14 87 4/29/14 2 89 5/29/14 96 6/27/14 95 (1) 7/30/14 97 2 8/28/14 105 9/29/14 101 (4) 10/30/14 107 6 11/26/14 111 12/30/14 120 9 1/29/15 142 22 2/26/15 129 (13)

To view the Milliman Hedge Cost Index Methodology, go to: http://www.milliman.com/mhci-methodology/