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Feature Article

The×Effectiveness of Gap Insurance With Respect to Basis Risk in a Shareholder Value Maximization Setting

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Abstract

The purchase of index-linked alternative risk transfer instruments can lead to basis risk, if the insurer's loss is not fully dependent on the index. One way to reduce basis risk is to additionally purchase gap insurance, which fills the gap between an insurer's actual loss and the index-linked instrument's payout. The previous literature detects gains in the effectiveness of this hedging strategy in a mean–variance framework. The aim of this article is to extend this analysis and to examine the effectiveness of gap insurance in a shareholder value maximization framework under solvency constraints. Our results show that purchasing gap insurance can generally increase the hedging effectiveness in multiple ways by reducing basis risk, thus increasing shareholder value and, at the same time, lowering shortfall risk.

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