Insurance Linked Securities

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Abstract

The objective of this thesis is to provide a comprehensive analysis of Insurance-Linked Securities as an investment opportunity, whereas the optimal allocation to ILS is investigated for standard portfolios of professional/qualified investors. Given the heavy-tailed risks underlying ILS products, the first part of the study conducts a quantification of the diversification potential of ILS as measured by tail risk metrics such as Value at Risk, Expected Shortfall and risk measures based on Benchmark Loss Distributions. Moreover, from a Portfolio Selection perspective, the analysis is complemented with an investigation of the composition of optimal portfolios in a Markowitz-type setting, where the variance is replaced by one of the above risk metrics. The findings reveal that in most of the cases, a high allocation to Insurance-Linked Strategies in detriment of other Alternative Investments leads to a better risk-reward pattern. Nevertheless, for high levels of confidence as well as under risk measures based on benchmark loss distributions, the optimal allocation to Insurance-Linked Securities both from a risk management and a portfolio selection perspective is reduced by half.