

# **A Guaranteed-Return Structured Product as an Investment Risk Hedging Instrument for Defined Contribution (DC) Pension Savings**

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## **Abstract**

In this study, we propose a novel structured product (SP) among the basket of financial products sold to pension fund members, which offers to hedge DC pension members against capital market risk. The new SP is based on trading risk-free government bonds and call options on a benchmark equity market index, that guarantees a minimal rate of return to the member's accumulated pension savings, and a partial percentage of the potential positive return of the benchmark index.

also keep the potential for upside by investing in the equity market.

We test the investment strategy of the structured product against a balanced investment portfolio using Monte Carlo simulations on three different structured products, and we measure their performance across a wide variety of capital market return and risk scenarios. The results of the study show that, under certain market conditions, the SP can guarantee a return on the pension savings portfolio and can offer a higher portfolio return at a lower investment risk than would the balanced investment portfolio. We conclude that the SP might be an excellent investment alternative for pension fund members.

**Keywords:** Minimal Guaranteed Return, Public Pensions, Portfolio Choice, Risk Management