Strategic Assets Allocation: An asset-liability management model applied to the insurance sector

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An insurer who faces the risk of paying stochastic insurance claims needs to manage her assets taking into account the market evolution impact on liability profile.

We propose a development on a dynamic strategic asset allocation model aiming to maximize the portfolio expected profitability, assuming the Solvency Capital Requirement (SCR) as risk measure. Based on the insurer's asset and liability profile, the investment/reinvestment is projected, over a specific time horizon, considering some set of restrictions: the available liquidity, the SCR, investment limits and target values for reinvestment by asset category.

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