

TITLE: Regime-Switching Portfolio Replication

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ABSTRACT: Regime switching models have become a popular tool in econometric time series modeling since their introduction in Hamilton (1989). These models have been widely applied for equity-returns for investment guarantees. A prominent risk management challenge is hedging, these guarantees, given the equity regime switching process. This presentation will develop some methodologies for regime-switching portfolio replication and use real world data to demonstrate and evaluate their effects. A Bayesian approach for regime switching model fitting is used, which allows for the examination of the robustness of each of the optimization methods when parameter uncertainty is present