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A stochastic local volatility technique for TARN options

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ABSTRACT

Target Accumulation Redemption Notes (TARN) are financial derivatives which give their holders the right to receive periodic coupons until the accumulated sum of those ones reaches an agreed target. In this work, we solve a partial differential equations model for TARNs by a finite difference alternating directions method. We combine the numerical resolution with a stochastic local volatility technique and show the numerical results for a particular problem.

KEYWORDS:

Option pricing TARN stochastic local volatility partial differential equations model alternating directions scheme

2010 MATHEMATICS SUBJECT CLASSIFICATION:

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