

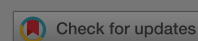
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Articles

A lattice-based model to evaluate variable annuities with guaranteed minimum withdrawal benefits under a regime-switching model

M. Costabile 

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Abstract

We consider the problem of evaluating variable annuities with a guaranteed minimum withdrawal benefit under a regime-switching model. We propose a trinomial lattice model to approximate the evolution of the investment fund value and the policy value

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Notes

No potential conflict of interest was reported by the author.

1 In the case of β , we set $\beta = 0$, hence $\beta = 0$. In other words, once the reference fund reaches zero it stays trapped there until maturity.

2 The existence of the solution is shown in the Appendix [4](#).

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