

A SIMPLE OPTION-PRICING MODEL WITH CHANGING VOLATILITY

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ABSTRACT. Mathematically tractable option-pricing model is presented to account for discrete shifts in mean and variance in the stochastic process generating the evolution of asset price. This leads to a closed-form model for pricing European call options when the states are restricted to two only, which are associated with low and high volatility states. Approximate formula for evaluating the option prices is also presented for the case of finite Markov states.

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