

Valuing American Put Options with Regime Switching

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Abstract:

We look at two different models for pricing an American put option, on a non-dividend paying stock, with regime-switching. Here we study the two regime case. First, we value the option using an implicit finite difference method on a pair of partial differential equations and the free boundary conditions. We then value the option by constructing a pentanomial tree, a method created by Bollen. Finally, we compare the two methods and their results.