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Knock-in American options

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Abstract

A knock-in American option under a trigger clause is an option contract in which the option holder receives an American option conditional on the underlying stock price breaching a certain trigger level (also called barrier level). We present analytic valuation formulas for knock-in American options under the Black-Scholes pricing framework. The price formulas possess different analytic representations, depending on the relation between the trigger stock price level and the critical stock price of the underlying American option. We also performed numerical valuation of several knock-in American options to illustrate the efficacy of the price formulas. © 2004 Wiley Periodicals, Inc. Jrl Fut Mark 24:179–192, 2004

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