

Introduction to Tree methods for financial derivatives

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1 Trees for standard options

1.1 Cox-Ross-Rubinstein as an approximation to Black-Scholes

The generalized Cox-Ross-Rubinstein (CRR) model has an interest on his own as a basic model of stochastic discrete-time process for the underlying asset of a financial derivative. One of its main attractive feature is the easiness of standard option pricing by backward induction which relies on the possibility of performing a perfect hedge at every node of the tree (cf. [The Generalized CRR Model](#)). In fact the original motivation of Cox, Ross and Rubinstein was to approximate the Black-Scholes price of an option.

Let N denote the step number of the algorithm: the Black-Scholes dynamic under the risk-neutral probability is replaced by the dynamic of the

References