



Pricing, hedging, & risk management for equity markets

DESCRIPTION

@EQUITY is a set of Microsoft® Excel add-in functions that values derivative instruments used in the equity markets. Typical users are corporations, investment funds, financial institutions, insurance companies, and individual investors.

@EQUITY is written completely in C and provides extremely fast calculations. It includes Excel add-in functions (XLL files), customizable Excel templates, and documentation. When installed, @EQUITY adds functions to Excel that are used like the built-in worksheet functions, so you can customize the @EQUITY templates or create new ones.

@EQUITY is also available as the EquiLib™ C library for Unix and Windows programmers who want to incorporate @EQUITY functions into custom and third-party C, C++, Visual Basic, and SQL database applications.

FEATURES

Extensive Instrument Coverage: The supported set of instruments (see Coverage) can be extended by combining and chaining functions to value complex transactions. @EQUITY includes templates for specialized trades such as equity swaptions. FEA regularly expands instrument coverage and publishes new spreadsheet templates.

Basket Options: @EQUITY values basket options for up to 32 correlated equities using an extremely fast analytic routine or control-variate Monte Carlo simulation.

Dividend Schedules: All @EQUITY functions accept a discrete dividend schedule, a continuous dividend yield, or both (the yield applies after the last discrete dividend date). Both constant and proportional dividends are supported (a constant dividend is independent of the equity price on the payment date and a proportional dividend is linked to the equity price).

Cross-commodity Models: @EQUITY functions include domestic models which support a single equity against a base currency (for example, the exchange of USD for USD-denominated equity by a U.S.-based investor). Many domestic models have cross-commodity counterparts, which support a base currency and two different commodities not involving the base currency (for example, the exchange of GBP for JPY-denominated equity by a U.S.-based investor).

Comprehensive Results: All price and risk measures can be calculated with a single function call. Results include fair value and sensitivity with respect to price (delta and gamma), volatility (vega), time (theta), and interest rate (rho). Both buy-side and sell-side risk measures are calculated for cross-commodity models.

Implied Volatility: @EQUITY calculates implied volatility for single-asset options.

Quanto Options: @EQUITY values domestic and cross-commodity quanto options, which give a fixed-rate guarantee of the option's value in an alternative currency. A quanto option has all the characteristics of a standard option plus the additional feature of paying off at a fixed conversion factor of an equity or currency. For example, a GBP-denominated option on UK stock, paying in USD, with a fixed GBP/USD exchange rate.

COVERAGE

@EQUITY functions value these instruments:

- Forwards and futures
- European and American options
- Basket options
- Swaps and swaptions



Contact FEA for a demonstration version of this product

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