外汇类

FX_European_Generic

Revision: 2

外汇欧式期权，支持 strike 或 delta（spot delta, forward delta 或 mixed1Y delta）形式的行权价指定，支持用户指定 implied vol 或挂接 volatility surface 通过插值抓取波动率。

交易参数列表（名称、举例、注释）

ValuationDate	18-Jun-19	The date when valuation performs.
BaseCurrency	USD	The base currency name.
Currency	CNY	The currency name.
Direction	Buy	The direction of either Buy or Sell.
SettlementType	Physical	The settlement type: either Physical or Cash.
CallPut	Call	The option of Call or Put.
ExpiryDate	6-Jan-20	The date of option expiry.
DeliveryDate	8-Jan-20	The date of option delivery.
Strike	6.9099	The forward price at which this contract can execute. If both 'Strike' and 'Delta' were given, then 'Strike' is used and 'Delta' input is ignored.
Delta	0.5	The delta within range [0,1] at which this contract can execute. For example, 0.5 stands for 50% delta, 0.05 stands for 5% delta. If both 'Strike' and 'Delta' were given, then 'Strike' is used and 'Delta' input is ignored. The type of this delta is defined by 'DeltaType'.
DeltaType	Forward	The type of delta that controls how to convert delta to strike: either

		Spot or Forward or Mixed1Y.
Notional	1000000	Contract notional. The notional is the maximum face value of the forward.
ImpliedVol	0.1	The implied volatility of option underlying at valuation date. If both 'ImpliedVol' and 'VolatilityID' were given, then 'ImpliedVol' is used and 'VolatilityID' is ignored.
ModelType	Black-Scholes	The name of model to use: either Black-Scholes or ...
BaseCcyDiscountCurve	CURVE_USD_IMPLIED_USDCNY#BLOOMBERG#MID	Module ID of the discount curve.
DiscountCurve	CURVE_CNY_REPO7D#BLOOMBERG#MID	Module ID of the base currency discount curve.
FxSpot	FXSPOT_USD#BLOOMBERG#MID	Module ID of the fx spot matrix.
Volatility	VOL_USDCNY_OPTIONVOL#BLOOMBERG#MID	Module ID of the volatility. If both 'ImpliedVol' and 'VolatilityID' were given, then 'ImpliedVol' is used and 'VolatilityID' is ignored.
IndexFixings		Module ID of the index contract fixings. If no fixing data is required, just leave empty.

实测案例（交易输入，csv 格式）：

ValuationDate,18-jun-2019

BaseCurrency,USD

Currency,CNY

Direction,Buy

SettlementType,Physical

CallPut,Call

ExpiryDate,06-jan-2020

DeliveryDate,08-jan-2020

Strike,6.9099

Delta,0.5

DeltaType,Forward

Notional,1000000

ImpliedVol,0.1

ModelType,Black-Scholes

BaseCcyDiscountCurve,CURVE_USD_IMPLIED_USDCNY#BLOOMBERG#MID

DiscountCurve,CURVE_CNY_REPO7D#BLOOMBERG#MID

FxSpot,FXSPOT_USD#BLOOMBERG#MID

Volatility,VOL_USDCNY_OPTIONVOL#BLOOMBERG#MID

实测案例（交易输出，csv 格式）：

```
Gui_Temp_Trade_1
Time calculate: 23.22ms
Spot Date,20-jun-2019
Spot,6.9032
Implied Vol,0.1
Forward,6.92764747252747
CNY Depo,0.0254785270240567O5
USD Depo,0.0190948415065890З2
Premium Date,20-jun-2019
Price(% CNY),0.211214079021032 98
Price(% USD),0.0305965463873323 94
Premium(CNY),211214.079021033
Premium(USD),30596.546387332393
Spot Delta(CNY),522891.420214914
Spot Delta(USD),75746.23655911954
Forward Delta(CNY),528573.818705835
Forward Delta(USD),76569.390819596
Hedge(CNY),-522891.420214914
Hedge(USD),-75746.23655911954
Gamma(CNY),766597.347249013
Gamma(USD),111049.56357182364
Vega(CNY),20213.3663689104
Vega(USD),2928.11542022 6909
Volga(CNY),-0.39341355761 4487
Volga(USD),-0.0569900274676 2183
Vanna(CNY),106.888992034155
Vanna(USD),15.4839772908441
```