

Available Through

- Microsoft Excel add-ins
- Software development kits
- Bloomberg Professional Service

Asset-Class Modules

- Fixed income
- Inflation
- Credit
- Equity
- Foreign exchange
- Commodities
- Hybrids

Recommended Users

- Traders
- Risk managers
- Quants/Structurers
- Portfolio managers
- Asset liability managers

Key Benefits

- Unlimited structuring flexibility
- A comprehensive model library
- Comprehensive risk analysis and reporting
- Pre-trade price discovery
- Scenario analysis
- Deal portability with Numerix XML

Quantitative Expertise

Numerix's team of quantitative analysts and financial engineers consists of over 60 PhDs in math and science, on the same scale as some of the world's largest financial institutions.

Structuring, pricing and risk for derivatives and structured products

Numerix CrossAsset offers the ability to model any type of OTC instrument using a comprehensive mathematical library and transparent pricing framework—providing a unified platform for consistent valuations and risk management across all positions and asset classes.

Numerix functions are available via Microsoft® Excel® as an add-in, or can be integrated into your proprietary or third-party system using our software development kit (SDK) in C#, C++ or Java. We also offer Excel and SDK modules for single asset classes or sub-sets of models.

Key Features

- The industry's most **comprehensive independent library** of market-validated models and optimized methods
- **Transparent structuring and pricing**, allowing granular control over deal structure and pricing inputs — including choice of model and method for each instrument
- **Rapid structuring tools**, including hundreds of customizable trade templates and examples, helping to reduce time-to-market for new products
- **Support for custom deals and payoff schedules** using our unique payoff structuring interface
- **Comprehensive risk analysis and reporting** for individual deals or a basket of trades, including MTM, P&L, cashflows, Greeks and custom risk reports

| EquityKOSwap | | | |
|--------------------|-------------------------------|-----------------------|---------------------|
| Trade Input | | | |
| Deal Number | Trade abc | Book | Book A |
| Counterparty | Bank X Y Z | Trader | Trader A |
| Comment | Comment here | | |
| Deal Definition | | | |
| DealID | EquityKOSwap | Fixed Basis | 30/360 |
| Equity | Siemens | Fund Freq | 3m |
| Currency | EUR | Funding Convention | CONV EUR EURIBOR |
| Position | Buy | Funding Basis | ACT/360 |
| Notional | 400,000,000.00 | Business Center | Target |
| Start Date | 13-Oct-2008 | Premium | ----- |
| Swap Maturity | 10Y | Fixed | ----- |
| End Date | 15-Oct-2018 | Barrier | ----- |
| Coupon Freq | 6m | Multiplier | ----- |
| Fixed Convention | CONV EUR SWAP | Equity Fixings | ----- |
| Equity Fixing Lag | 2bd | Funding Index Fixings | ----- |
| Risk Inputs | | | |
| IR Delta Shift | 0.0100% | | |
| Model Selection | | | |
| Pricing Model | EQUITYKOSWAP HYMODEL | Quality | 0 |
| Valuation Date | TODAY | Numerical Method | ForwardMC |
| Valuation and Risk | | | |
| Swap Price | 5,440,018.30 | IR Delta Report | EQUITYKOSWAP IRRISK |
| EQ Delta | 252,945.63 | Flat IR Delta | 0.00 |
| EQ Gamma | (505,891.28) | Flat IR Gamma | (64,041.21) |
| Hyperlinks | | Skip Risk Reports | |
| Deal Object | Nx_D_EquityKOSwap_Deal_Object | EQGreeks | FALSE |
| Data | Nx_D_EquityKOSwap_Data | IRRisk | FALSE |
| Events | Nx_D_EquityKOSwap_Events | IRRiskFlat | FALSE |
| Indices | Nx_D_EquityKOSwap_Indices | | |
| Pricers | Nx_D_EquityKOSwap_Pricers | | |

Users can define and modify any component of the deal structure and pricing inputs, including choice of model and method

Risk Analysis Capabilities

- Shift bumps
- Credit default bumps
- Zero-rate shift bumps
- Yield risk
- Credit spread risk
- Credit recovery
- Jump-to-default
- Index hedge reports
- Cumulative distribution function (CDF)
- Value at Risk (VaR)
- Volatility risk
- Spot-rate sensitivities
- Equity Greeks
- FX ladder report

Trader Apps in Excel

Numerix CrossAsset XL includes special workbooks that streamline the workflow for managing a book of trades.

- Credit Trader
- FX Trader
- Rates Trader

About Numerix

Numerix is the leading provider of cross-asset pricing and risk solutions for derivatives and structured products. Since its inception in 1996, over 700 clients and 50 partners across more than 25 countries have come to rely on Numerix analytics for speed and accuracy in valuing and managing the most sophisticated financial instruments. With offices in New York, London, Tokyo, Hong Kong, Singapore and Dubai, Numerix brings together unparalleled expertise across all asset classes and engineering disciplines.

For more information, contact:
sales@numerix.com

All the Modeling Tools You'll Ever Need – Even for Hybrids

The Numerix model library is widely viewed as the **market standard for valuing complex derivatives**, validated by years of real-world use and noted for its speed and accuracy. In fact, no other independent institution provides a wider selection of models and methods spanning all major asset classes — forming the foundation for our unique hybrid framework.

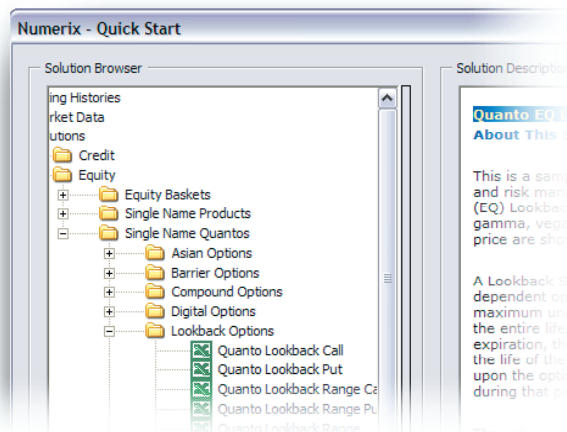
An Open Framework for Transparent Pricing

Most analytics solutions lock down core calculations into a “black box” of preset pricers, limiting the user’s ability to model and price new trade types. With Numerix CrossAsset, users can quickly describe any new instrument by defining the deal’s individual building blocks, such as yield curves, calibrating instruments, event schedules and indices. The user can also customize the deal structure and payoff terms using our unique scripting interface.

```
24
25 PAYOFFSCRIPT
26 IF ISACTIVE(CouponDates) THEN
27   flow = FixedRate + Multiplier1 * CouponCMB
28   flow = MAX(MIN(flow, Cap), Floor)
29
30 // Coupon amount on the last date
31 IF ISLAST(CouponDates) THEN
32   ActualCoupon = TriggerLevel - RunningSum
33 ELSE
34   ActualCoupon = MIN(flow * CouponDatesD,
35   END IF
36
37 CouponLeg += CASH(ActualCoupon * CouponNotional)
38 LOGPAYMENT(- PayCoupon * ActualCoupon * CouponNotional)
39
40 // Accumulating the sum of all Coupons: RunningSum
41 RunningSum += ActualCoupon
42
43 // Computing probabilities of early termination
```

Rapid Deal-Structuring Tools

With hundreds of sample trades, users can easily set up and price new deals. Each template provides all the necessary objects for defining and pricing the deal, which the user can quickly customize and price. If desired, the trade can be provided to developers for rapid integration into your trading system or exported to other Numerix-powered solutions using Numerix XML.



Enhanced Deal Portability with Numerix XML

Numerix CrossAsset users can export the deal definition and pricing inputs for any trade into a **Numerix XML file that is both machine- and human-readable**. Through the common language of Numerix XML, the deal can be easily archived or imported to other Numerix-powered solutions, improving workflow efficiency and reducing operational risk.