



# Numerix Training Agenda

## Structuring and Pricing Equity Derivatives Using Numerix CrossAsset XL

---

### Day 1

9:00–10:30

#### *Overview of Numerix products and system architecture*

- Introduction to Numerix object structure and functional interface in Excel
- Overview of Numerix Models and numerical methods

#### *Configuration and settings*

- Quick overview of global calendar, fixings, convention collections and their intended use

#### *Market Data*

- Walk through Numerix IR and EQ Market Data sheets; Yield Curves; Volatility surfaces; Dividend Curves etc.
- Updating Bloomberg Market data sheets and creating new market data sheets on the fly
- Numerix object and Function Interfaces

10:30–10:45

*Coffee Break*

10:45–12:30

#### *Pricing vanilla and semi-exotic deals via analytics*

- **Case Study:** setting up and pricing an Equity European Call/Put via analytics using both the object interface and function interface
- Capturing and displaying pricing results and Greeks on spreadsheet
- Quick overview of pricing of other vanilla deals – Numerix Examples library
- **Case Study:** setting up and pricing an Equity Barriers via analytics (KI/KO with variations on barriers)
- **Case Study:** Setting up and pricing Equity futures via analytics

12:30–13:15

*Lunch Break*

13:15–15:30

#### *Understanding solutions from the Numerix Template Library*

- Understanding the structure of out of the shelf solutions
- **Case Study:** Pricing an Equity Call Option using the template library
- Understanding the structure of the Numerix scripted deals; Model viewers: Viewing calibration results
- Equity Model Setup and calibration to market instruments
- Pricing with a different model –using solution builder to add a different model template
- Risk analysis and risk reports
- Report templates; Price convergence study and Numerix scenario tools;
- **Walkthrough other Equity deal templates and examples**
- Setup time slice observers to observe the underlying Equity index

15:30–15:45

*Coffee Break*

15:45–17:00

#### *Using payment streams to setup an Equity deal*

##### *In-depth understanding of deal structuring via scripting*

##### **Case Study: Deal structuring, valuation and risk reports for an Asian Dual Call option**

17:00–17:30

- Defining the payoff script for the deal - line by line coding of Numerix scripts
- Defining events, indices and fixing history; Pricing and valuation of the deal
- Q&A

## Day 2

9:00-10:30

### *Review of day one materials*

- Equity and FX market data sheets and model constructions
- Walk through sample EQ deal templates and examples
- The Model builder in CA XL

10:30-10:45

### *Coffee Break*

10:45-12:30

- Pricing Equity Asian and American Options
- Pricing Equity Lookback Options
- Pricing Equity barrier options
- Pricing Equity Digital Options
- Pricing Quantos

12:30-13:15

### *Lunch Break*

13:15-15:30

### ***Case Study: Structured note to capture the average of the highest intra-month Price*** ***Structure the Payoff, and pricing the deal***

- Defining the payoff for the deal.
- Defining the events for the deal.
- Setting up the kernel pricer and pricing the deal.

15:30-15:45

### *Coffee Break*

15:45-17:00

### ***Case Study: Phoenix AutoCallable note linked to Underlying*** ***Structure the Payoff, and pricing the deal***

- Defining the payoff for the deal.
- Defining the events for the deal.
- Setting up the kernel pricer and pricing the deal.

17:00-17:30

Q&A