

# Navigate the LIBOR Transition with CrossAsset

**Multi-Curve Framework Built for Accelerating the Transition from LIBOR to Risk-Free Rates**



## Comprehensive RFR Coverage

Comprehensive coverage of both linear and non-linear RFR instruments which also includes RFR curves and volatility surfaces construction.



## Advanced Curve Features

Accurately represent market realities and capture curve features, including turn effects, meeting dates, and interpolations.



## Flexible Framework

Advanced architecture lets users choose between bootstrapping and multi-curve stripping, as well as rapidly introduce new RFR instruments and curve features.



## Coverage for Both Legacy and New Contracts

Flexible curve framework supports pricing with both the LIBOR and LIBOR fallback curves on legacy contracts, and RFR curves on new contracts for both discounting and projection.



## Global Solving

Sophisticated solving and construction of multiple interrelated curves simultaneously across multiple currencies and project cashflows for better understanding risk before and after the transition.



## Market-leading Analytics

Our award-winning library of models and methods for derivatives pricing also features a powerful multi-curve framework allowing for separation of forward and discounting curves.

## Accelerate Your LIBOR Transition

Numerix CrossAsset's cutting-edge multi-curve framework empowers institutions to accelerate their LIBOR transition and ensure they have the analytics necessary to handle legacy LIBOR contracts as well as issue new RFR products.

CrossAsset delivers market-ready RFR analytics that enable firms to confidently price and manage the risk of any OTC derivative or structured product including RFR non-linear derivatives with uncompromising accuracy and market-consistent valuations.

Whether you are valuing a SOFR swap or SONIA quarterly futures, our analytics library provides comprehensive coverage for both linear and non-linear RFR instruments as well as full support for both legacy contracts and new contracts.

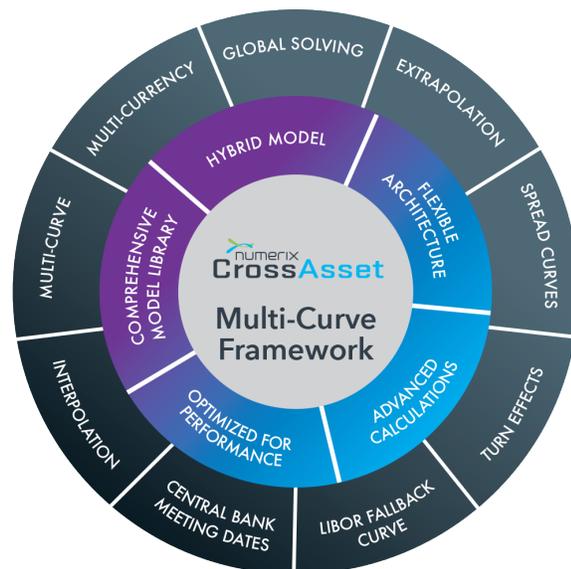
## CAPABILITIES

## Comprehensive Coverage for Legacy LIBOR Contracts and the Latest RFR Instruments

Numerix CrossAsset puts our users at the forefront of the LIBOR transition. Its sophisticated architecture and consistent, unified framework are able to help ease your organization's transition to Risk Free Rates no matter where your organization is in its LIBOR transition process.

CrossAsset's multi-curve framework delivers industry-leading speed to market, flexibility and extensibility. All while avoiding common hang-ups presented by rigid, hard-coded frameworks.

Whether at the heart of your Numerix solutions or integrated into other pricing and risk systems, users can rapidly integrate our RFR analytics into your tech stack and help you trade and risk manage the latest RFR instruments.



## BENEFITS & FEATURES

### Designed to Keep You Ahead of the Curve

Numerix CrossAsset's sophisticated architecture and consistent, unified framework deliver a robust collection of in-demand and cutting-edge features.

**MULTI-CURVE:** Generalized and flexible framework for stripping two or more curves simultaneously

**MULTI-CURRENCY:** Support for curves across different currencies

**GLOBAL SOLVING:** Simultaneously solve for multiple interrelated curve

**CENTRAL BANK MEETING DATES:** Accurately represent interest rate jumps due to central bank rate changes

**TURN EFFECTS:** Ensure curves incorporate liquidity issues present at the end of the month, quarter or year

**SPREAD CURVES:** Curves can be defined via spreads with respect to another curve

**INTERPOLATION:** Choose different interpolation methods at different time horizons

**EXTRAPOLATION:** Extend curves beyond the longest tenor market data

**LIBOR FALLBACK CURVE:** Compatible with ISDA IBOR Fallbacks Supplement and Protocol

## The Numerix Difference

### The Recognized Leader in Pricing & Risk Analytics

Choosing Numerix for RFR analytics means partnering with the leader in derivative pricing, from our deep industry experience and widely recognized quantitative leadership to our award-winning solutions and cutting-edge technology.

- Most comprehensive collection of pricing models and methods in the market, including an advanced hybrid model to price instruments with multiple underlyings
- True cross asset coverage with the greatest depth and breadth in OTC derivatives and structured products coverage
- Infinitely flexible deal-structuring architecture for the rapid pricing of any instrument, from vanillas to the most complex exotics
- Extensive risk analytics including Greeks/sensitivities, all XVAs, PFE and other counterparty risk exposures, VaR/ Expected Shortfall, scenario analysis, and stress testing
- Fast deployment and implementation, with analytics available in Excel, Python, Java, C# or C++

## Comprehensive RFR Coverage

**FLEXIBLE. COMPLETE. MARKET-READY.**

CrossAsset provides users with significant flexibility in building RFR curves and makes it easy to introduce new RFR instruments to your system. As other jurisdictions develop their RFR markets and more products become available, CrossAsset's flexible curve framework can help you quickly adapt and construct curves in those markets.

Choose from curve member instruments including:

### Linear products

- Overnight rate futures (SOFR, SONIA)
- OIS swaps (SOFR, SONIA, €STR, TONA and SARON)
- Single-currency basis swaps (SOFR vs. USD LIBOR, €STR vs. EURIBOR, etc.)
- Cross-currency basis swaps (SOFR vs. SONIA, SOFR vs. €STR, SOFR vs. EURIBOR, etc.)

### Non-linear products

- Overnight rate swaptions (SOFR, SONIA, TONA, etc.)
- Overnight rate caps/floors (SOFR, SONIA, etc.)
- Callable swaps and other exotic payoffs

## Seamless Support for Transition to RFR

CrossAsset provides full support for your transition from LIBOR to RFR – from handling legacy contracts to the pricing and risk management of new RFR products and everything in between.

### Legacy contracts

- Build LIBOR fallback curves for legacy contracts adhering to the ISDA IBOR Fallbacks Protocol after the permanent discontinuation of LIBOR
- Convert legacy LIBOR contracts to reference a risk-free rate with a spread adjustment
- Produce accurate cash flow projections using the ISDA IBOR Fallback curve

### Transition phase

- LIBOR-to-LIBOR fallback transition curve to support pricing simultaneously with both the LIBOR curve and the LIBOR fallback curve during the transition period
- Accurately capture the valuation and pricing of existing LIBOR contracts that saddle both sides of the LIBOR transition
- Leverage LIBOR-to-LIBOR fallback transition curve to generate pre-cessation scenarios to better understand and prepare for the LIBOR transition

### New contract issuance

- Value and price complex and emerging RFR products such as SOFR-linked notes and non-linear derivatives
- Respond quickly to new RFR conventions to empower users to issue, trade, hedge and manage the risk on new RFR instruments
- Flexible kernel framework to accommodate and capture the valuation of exotic RFR instruments and products with non-standard coupon features