

Factsheet – Fusion Invest

Interest rate derivatives

Fusion Invest provides a window on the market with real-time capabilities and risk mitigation, enabling investment managers to react quickly when economic forces impact asset classes

Our economy has been rocked by the impact of Brexit and the global pandemic.

Inflation is rising, and it's only a matter of time before interest rates begin to climb to prevent the economy from. Therefore, Investment Managers are keeping a watchful eye on the markets as they struggle to navigate the choppy waters ahead.

Portfolio and investment managers are constantly looking to perform better in a market that's becoming ever more complex and highly regulated. Throw into the mix the transition from LIBOR to risk free rates (RFR), and you have a seismic shift in the treasury and capital markets landscape. The impact will be vast, with the need to adapt pricing models, updating compliant workflows, and implementing operational changes across all lending segments.

Fusion Invest, the leading solution for investment management, ensures better transparency and collaboration throughout the investment process delivering a consistent analytics framework on top of a real-time Investment Book of Record.

Key benefits

Leveraging the broadest financial product coverage on the market and strong functional coverage, portfolio managers, get a real-time, bird's eye view of their portfolios.

- Comprehensive coverage of listed, OTC and cleared interest rate derivatives.
- Multi-Libor curves constructions including OIS discounting for highly accurate swap pricing and hedging.
- Extensive set of pre-packaged but flexible risk analytics to carry out real-time risk management.
- Fully customizable pricing models using the Fusion Invest Software Development Kit (SDK).

Product coverage

Covering a broad range of products and markets, the Finastra solution delivers a comprehensive view of your portfolios and eliminates the challenges of onboarding new strategies or assets



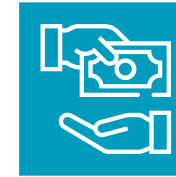
Cash

- Bonds.
- Cash deposits.
- Commercial papers.
- Debt.



Futures

- Interest rates futures.
- Futures on average rates, e.g.
- Fed fund futures.
- FRA.
- Bond futures.



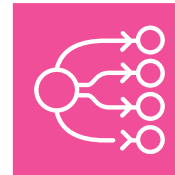
Swaps

- Plain vanilla, basis, compo and quanto, OIS, compounding, averaging.
- Inverse floaters, interpolated, floored, and capped coupons.
- Cancellable swaps.



Options

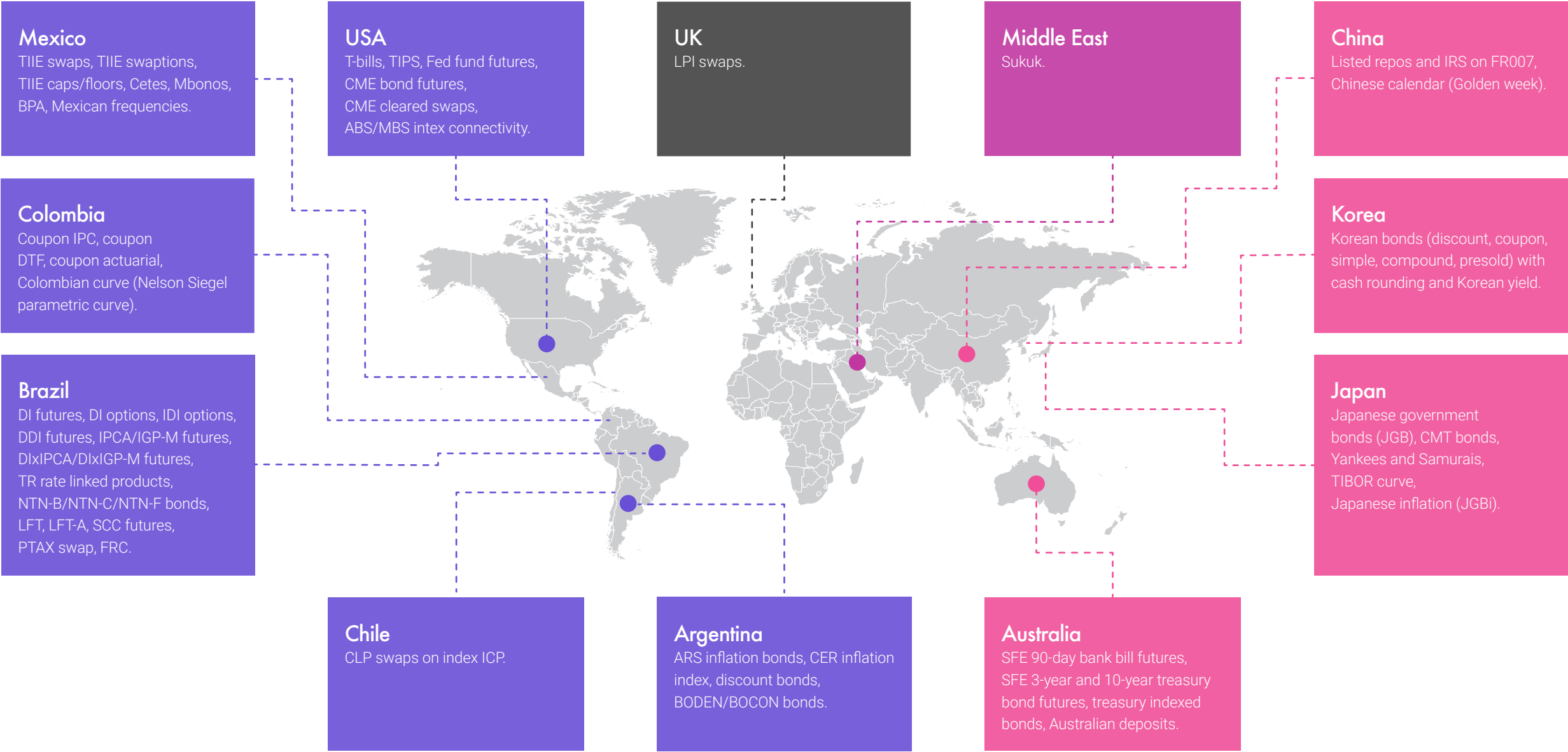
- Options on interest rate future contracts, e.g. Eurodollar: European, Bermudan and American.
- Bond options: European, Bermudan and American, with barrier and spreads.
- Caps and floors: standard, digital.
- Swaptions: European, Bermudan and American, cross-currency, with barrier.



Flow exotics

- Swaptions on zero-coupon or amortized swaps.
- Target redemption swaps.
- CMS spread swaps: power spread, range accrual, digital.
- Snowball swaps with auto callable, spread and capped/floored coupons.
- Range accrual swaps with auto callable and spread features.

Global product coverage



Pricing models

Finastra's experienced quant team continuously support and invest in product development to address constantly evolving market challenges for all types of assets, such as management of credit big bang and ISDA conventions, negative interest rate/OIS discounting, and most recently, the transition from LIBOR to new alternative reference rates.

- Libor Market Model diffusing interest rates with displaced diffusion in Monte Carlo framework: toolkit openness, off-the-shelf distribution, and multi-threading.
- Hull & White for callable, Bermudan, and American-style options.
- SABR for parametric decomposition of Libor and CMS volatility smiles.
- OIS and CSA discounting.
- Convexity adjustments.

Market data management

Fusion Invest accelerates solution deployment by its set of pre-packaged interfaces with data providers. In addition, for any interface, standards can be adjusted to fit specific requirements based on configuration and customization, leveraging Fusion Invest's powerful Software Development Kit (SDK).

- Real-time and EOD calibration of interest rate curves from data provider feeds (e.g., Refinitiv, Bloomberg).
- Multi-Libor curve calibration from money-market, IRS, OIS, FRA, basis swaps and more.
- Minimal maintenance of curves with data feed and automatic futures roll.
- Caps and swaption volatility cubes updated via SOA Excel Uploader.
- Cross-asset hybrid correlations with parametric entries (inflation, equity, commodity against interest rates).





Portfolio management and lifecycle

Fusion Invest's dynamic reporting and monitoring capabilities align optimally for C-level, portfolio managers, risk managers, performance, and compliance officers, as well as middle office operations

With access to decision support tools from their portfolio dashboards, portfolio managers can quickly simulate, test, and validate investment decisions. Integration to execution platforms and broker networks guarantee efficiency.

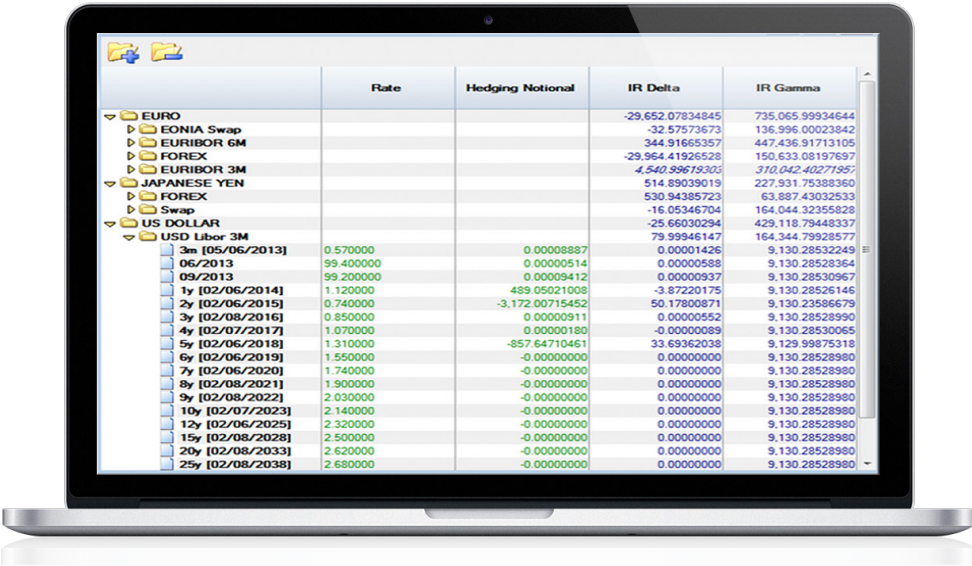
While comprehensive tracking of execution processes across all portfolios, and control with automated pre-trade checks, ensure transparency and compliance with regulatory and internal guidelines.

- Real-time portfolio aggregating all positions: position keeping, hedging and PnL calculation with marked to market and theoretical prices.
- Backdating capabilities for time series analysis and reporting purposes.
- Easy drill-down of the portfolio with on-the-fly aggregated reports by currency, interest rate, maturity, etc.

- Dedicated interest rate indicators: clean and dirty theoretical price, break-even, accrued coupon, accrual coupon, DV01, DV02, PV01, basis risk, spread risk, frequency, mode, spread, duration, YTM.
- Lifecycle.
 - Quick booking of trades via user-defined blotters dedicated for flow business.
 - Live feed from execution platforms such as Trade web, Bloomberg.
 - Affirmation through MarkitWire.
 - Automatic management of coupons, expiries, resets.
 - Fixing diary.
 - Generation of alerts.
- User management: user rights, user preferences, audit of yield curves and other market data.
- Distributed computations of the portfolio with risk analysis and real-time P&L breakdown: unrealized, realized, accrued, cash income.

Risk management

With the ability for all departments within an investment management company to work together seamlessly, risk management is transformed



	Rate	Hedging Notional	IR Delta	IR Gamma
EURO				
EONIA Swap			-29.652.07834845	735.065.99934644
EURIBOR 6M			-32.57573673	136.596.00023842
FOREX			344.91665357	447.436.91713105
EURIBOR 3M			-29.964.41926528	150.633.08197697
JAPANESE YEN			4.540.99619305	310.042.40271957
Swap			514.89039019	227.931.75388360
FOREX			530.94385723	63.887.43032533
US DOLLAR			-16.05346704	164.044.32355828
USD Libor 3M			-25.66030294	429.118.79448337
3m [05/06/2013]	0.570000	0.00008887	0.00001426	9.130.28532249
06/2013	99.400000	0.00000514	0.00000588	9.130.28528364
09/2013	99.200000	0.00009412	0.00000937	9.130.28530967
1y [02/06/2014]	1.120000	489.05021006	-3.87220175	9.130.28526146
2y [02/06/2015]	0.740000	-3.172.00715452	50.17800871	9.130.23586679
3y [02/08/2016]	0.850000	0.00000911	0.00000552	9.130.28528990
4y [02/07/2017]	1.070000	0.00000180	-0.00000089	9.130.28530065
5y [02/06/2018]	1.310000	-857.64710461	33.69362038	9.129.99875318
6y [02/06/2019]	1.550000	-0.00000000	0.00000000	9.130.28528980
7y [02/06/2020]	1.740000	-0.00000000	0.00000000	9.130.28528980
8y [02/08/2021]	1.900000	-0.00000000	0.00000000	9.130.28528980
9y [02/08/2022]	2.030000	-0.00000000	0.00000000	9.130.28528980
10y [02/07/2023]	2.140000	-0.00000000	0.00000000	9.130.28528980
12y [02/06/2025]	2.320000	-0.00000000	0.00000000	9.130.28528980
15y [02/08/2028]	2.500000	-0.00000000	0.00000000	9.130.28528980
20y [02/08/2033]	2.620000	-0.00000000	0.00000000	9.130.28528980
25y [02/08/2038]	2.680000	-0.00000000	0.00000000	9.130.28528980

IR hedge analysis

Investment managers have consistent, comprehensive, real-time pricing and risk capabilities across all asset classes. Risk regulatory standards and internal requirements are met at every stage of the lifecycle from pre-trade to ex-post.

- Breakdown and aggregation of interest rate risk, inflation, credit risk sensitivities such as DV01, DV02, basis risk, spread risk.
 - By currency.
 - By curve (including treasury, swap, forex).
 - By maturity buckets.
- DV01 with zero-coupon or market point bumps across time buckets.
- Analysis by performance, durations, spreads, or cash balance.
- Automatic hedge computation with custom sets of IRS, futures, and options.
- Stress tests with flexible curve transformations: shifts, flatteners, steepeners, etc.
- Exposure to market volatilities for caps, swaptions and exotics.
- Historical and Monte Carlo VaR with shocks on rates and implied volatilities.
- Parametric VaR using custom projection base.



About Finastra

Finastra is building an open platform that accelerates collaboration and innovation in financial services, creating better experiences for people, businesses and communities. Supported by the broadest and deepest portfolio of financial services software, Finastra delivers this vitally important technology to financial institutions of all sizes across the globe, including 90 of the world's top 100 banks. Our open architecture approach brings together a number of partners and innovators. Together we are leading the way in which applications are written, deployed and consumed in financial services to evolve with the changing needs of customers. Learn more at finastra.com

Finastra and the Finastra 'ribbon' mark are trademarks of the Finastra group companies.

© 2021 Finastra. All rights reserved.

Corporate Headquarters

4 Kingdom Street
Paddington
London W2 6BD
United Kingdom
T: +44 20 3320 5000

