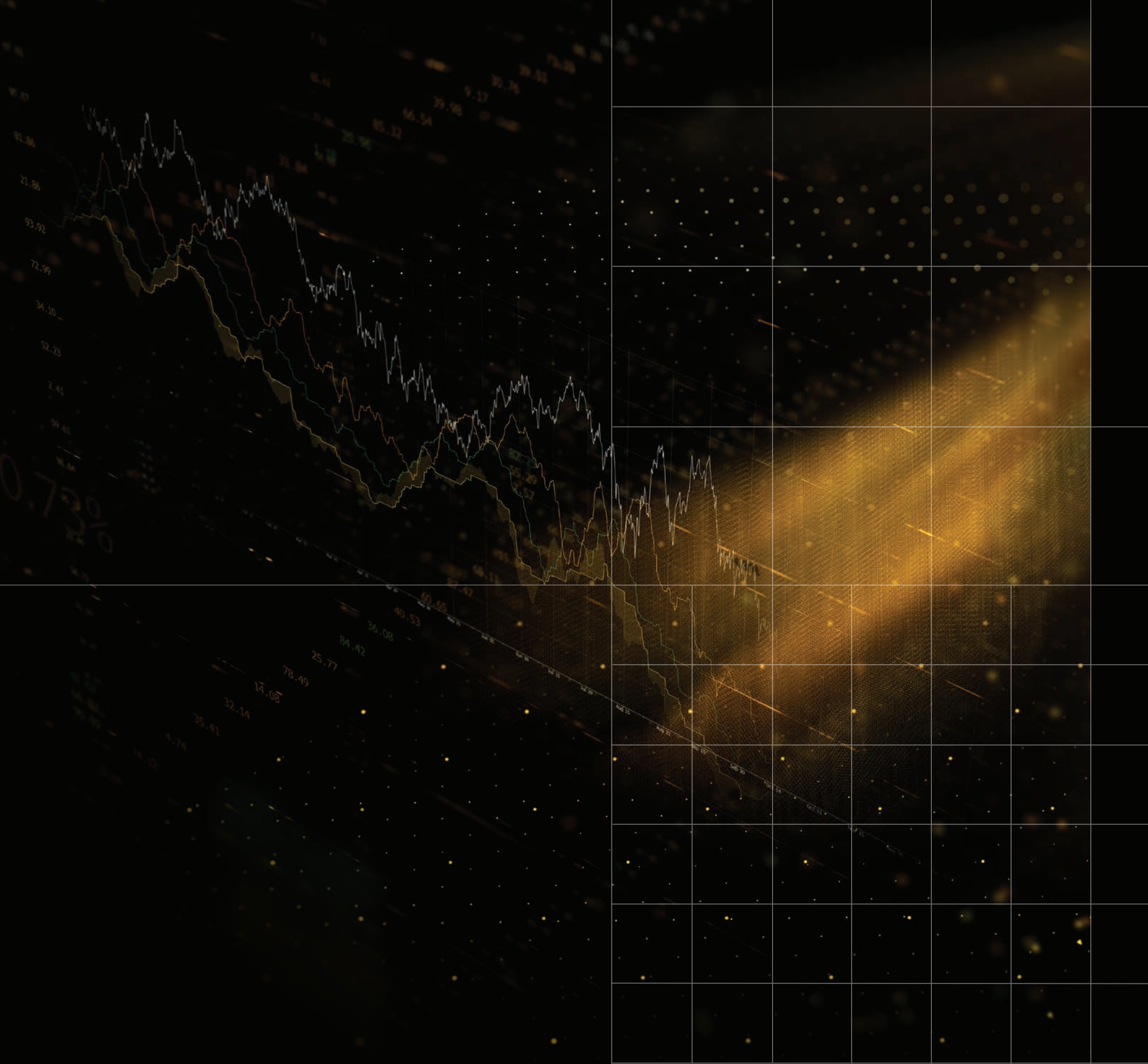
MARS Valuations.
Find true value.

Bloomberg Professional Services

Bloomberg Terminal

Risk & Valuations

Bloomberg



Contents

A complete, credible solution.

In today's evolving markets with increasing regulatory oversight, both buy-side and sell-side firms need a sophisticated solution to value their portfolios and understand their key risks. Bloomberg's MARS Valuations provides credible and complete end-of-day market values and Greeks for your entire portfolio for enterprise use.

With asset class coverage that encompasses a broad spectrum of financial instruments, a high-quality pricing library that offers a range of models and an automated enterprise workflow that streamlines the entire reporting process, MARS Valuations delivers a powerful, versatile and highly intuitive experience.

Powerful analytics. Broad coverage.

A comprehensive pricing library

MARS Valuations is built on a comprehensive quantitative library that delivers valuation and risk for cross-asset cash and derivatives products. Whether you are pricing an FX basket, an equity auto-callable, an interest rate range accrual or a long-dated FX-IR hybrid, the pricing library provides the right modeling technique to capture the market dynamics. Our exhaustive list of models includes:

- Local volatility
- Local volatility with local correlation
- Stochastic volatility (such as Heston Model)
- Stochastic local volatility
- Hull-White one/two-Factor
- Shifted Libor Market Model
- Hybrid of Hull-White one-factor & local volatility

The same Bloomberg Pricing Library powers the entire MARS suite of pricing and risk products, including MARS Front Office, MARS Market Risk, MARS Counterparty Risk and MARS Collateral Management. So you can meet all your risk needs with a single, streamlined service.

Extensive product coverage

With product coverage across multiple asset classes, including equities, interest rates, commodities, credit and foreign exchange rates, MARS Valuations covers the vast majority of:

- Cash instruments
- Exchange-traded & over-the-counter derivatives, from vanilla to exotic trades
- Single-asset & hybrid structured products

Bloomberg Multi-Asset Risk System (MARS)

OMS integration

- Buy-side (AIM)
- Sell-side (TOMS)
- Third-party OMS

Pricing & Data

- State of the art models
- Cross-asset library
- Contract creation
- Valuations
- Real-time & snapshot data

Front office risk

- Intraday pricing & greeks
- EOD & on-demand risk reports
- P&L Explain
- What-if trade analysis
- Pre-Trade XVA & Margin
- Scenarios & stress testing
- Portfolio Margin calculations
- Lifecycle management
- Projected & stressed Cashflows
- Regulatory analytics (PRIIPs, SIMM)

Market risk

- Full revaluation VaR & expected shortfall
- Greek sensitivities
- Historical, hypothetical & predictive stress tests
- Ex ante tracking error
- FRTB regulatory capital
- Buy & sell-side regulatory reporting
- Pre & post-trade analytics for all risk measures

XVA

- Valuation adjustments for OTC derivatives incl. CVA, DVA, FVA & MVA
- Counterparty credit risk exposure metrics (PFE)
- Regulatory capital calculations (SA-CCR)
- XVA/PFE pre-trade analytics - position what-if & CSA what-if
- XVA sensitivities

Hedge accounting

- US GAAP & IFRS
- Cash flow, Fair value & Net investment hedge types
- Effectiveness tests
- Measurement reports
- Cost of hedging
- Audit reports

Collateral management

- Legal documentation management
- Dispute management
- Portfolio margin calculations & workflow (IM & VM)
- Automated messaging
- Initial margin Calculations (SIMM, CCP IM)
- In system reconciliation
- Risk analytics

MARS API

- Programmatic access
- Cross-asset data snapshot
- System integration
- Custom reporting

Market-leading data.

Periods of market dislocation highlight the importance of getting timely updates to market data – especially during extreme market fluctuations. As industries become more aware of the hidden complexities within financial products, high-quality underlying market data is playing an ever-more-prominent role. MARS Valuations enables you to feed high-quality Bloomberg data, including intraday or snapshot-based golden copy data, into its state-of-the-art pricing library to derive valuations for enterprise use.

Data processing

Bloomberg employs innovative data-cleaning techniques and algorithms to generate high-quality data. Market data objects are also created to cater to advanced data uses, for example:

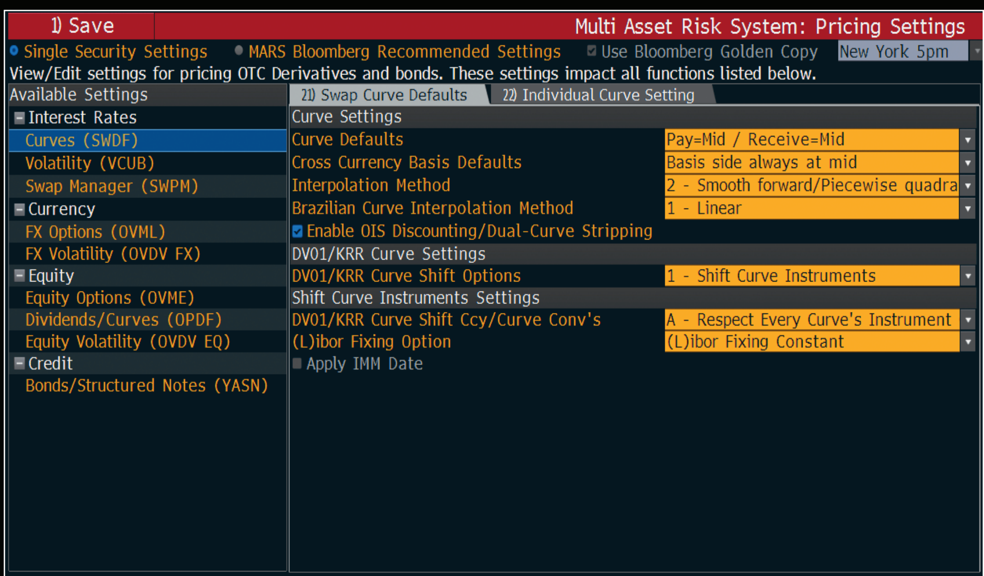
- Normal volatility model – for construction of interest rate volatility cube with shifted-SABR methodology
- Mixed lognormal approach – to equity skew parameterization

Flexibility & transparency

MARS Valuations provides flexibility and transparency on market data, pricing models and Greek calculations. Customizable controls allow you to choose between using Bloomberg-recommended settings or your own.

Bloomberg-recommended settings follow market best practices and cover market data, pricing and Greeks. Using recommended settings enables you to also benefit from Bloomberg's high-quality golden copy data taken from different regional closes.

Using your own settings gives you complete flexibility to choose between different pricing models, Greek settings, and data sources. Market data can include Bloomberg regular composite data, your subscribed broker/dealer data or your own uploaded data.



MARS valuations pricing settings

Provide users full control of pricing settings. Allow users to use Bloomberg Golden Copy data if Bloomberg Recommended Settings is selected.

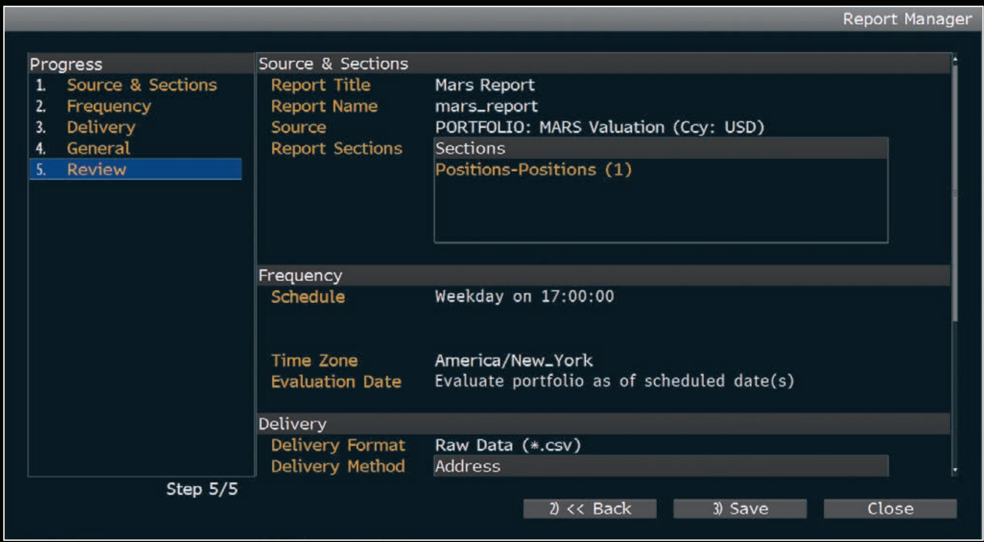
Streamlined processes.

Upload process

Deals can be conveniently uploaded from customer trade blotters in CSV format. The MARS platform is also fully integrated with other Bloomberg systems, including our Trade Order Management Solution (TOMS), Asset and Investment Manager (AIM) and Portfolio & Risk Analytics (PORT). So you can seamlessly feed your positions into MARS, including via SFTP, no matter where they sit.

Delivery process

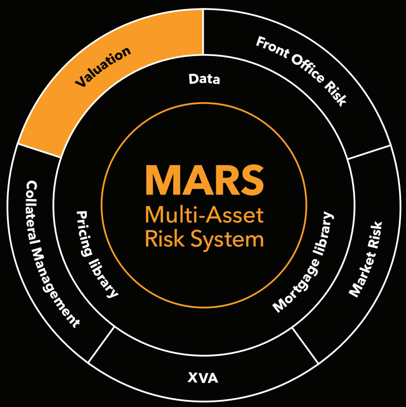
MARS Valuations gives you access to a variety of data points across more than 300 fields, with the flexibility to set up a customized report format containing only the data of interest to you. You can take full control of valuation and report delivery times via SFTP.



MARS valuations report schedule

Allow users to set up one-time or consecutive reports in customized format and deliver reports to an SFTP account.

MARS Multi-Asset Risk System



The Multi-Asset Risk System provides consistent and consolidated valuation, product lifecycle analysis, market risk, counterparty risk and collateral management.

MARS is powered by Bloomberg's world-class pricing library, market data and mortgage cash flow engine and enables front-office, risk and collateral professionals to analyze their trading and investment portfolios, mitigate risk and prepare for the unexpected.

About the Bloomberg Terminal.

Since 1981, business and financial professionals have depended on the Bloomberg Terminal for the real-time data, news and analytics they need to make the decisions that matter. The Terminal provides information on every asset class – from fixed income to equities, foreign exchange to commodities, derivatives to mortgages – all seamlessly integrated with on-demand multimedia content, extensive electronic-trading capabilities and a superior communications network.

Learn more

To learn more about Bloomberg's risk solutions, visit **RISK <GO>** on the Bloomberg Terminal or contact us at riskinfo@bloomberg.net.

Take the next step.

For additional information, press the <HELP> key twice on the Bloomberg Terminal®.

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