

MARS VALUATIONS

A Bloomberg Professional Service Offering

FIND TRUE VALUE

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CONTENTS

02 A COMPLETE, CREDIBLE SOLUTION.

03 POWERFUL ANALYTICS. BROAD COVERAGE.

04 MARKET-LEADING DATA

05 STREAMLINED PROCESSES

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

VALUATIONS

- Snapshots
- Report scheduler
- Automated delivery

FRONT OFFICE RISK

- Intraday Position Monitoring
- Real-Time Valuation & Risk
- Scenario, What-if Analysis & Stress Testing
- Lifecycle Management
- Report Scheduling & Document Generation

MARKET RISK

- Full Revaluation VaR
- Greeks, Scenario Analysis and Stress Testing
- Regulatory Reporting
- Enterprise Data

COUNTERPARTY RISK

- CVA
- PFE
- Greeks
- What-if Analysis
- Portfolio Margin Calculations

COLLATERAL MANAGEMENT

- Legal Documentation Management
- Margin Workflow (IM and VM)
- Automated Messaging
- In-system Reconciliation
- SIMM

PRICING LIBRARY

- Contract Creation
- Robust Models
- Pricing
- Lifecycle
- Document Generation
- API & Services Delivery

DATA

- Intraday
- Snapshots

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.

The screenshot shows the 'Pricing Settings' window in MARS Valuations. The interface is divided into a left sidebar and a main content area. The sidebar lists various settings categories: Interest Rates, Curves (SWDF), Volatility (VCUB), Swap Manager (SWPM), Currency, FX Options (OVML), FX Volatility (OVVDV FX), Equity, Equity Options (OVME), Dividends/Curves (OPDF), Equity Volatility (OVVDV EQ), and Credit. The main content area is titled 'Multi Asset Risk System: Pricing Settings' and shows a tree view of settings. Under '2) Swap Curve Defaults', there are sections for 'Curve Settings' and 'DV01/KRR Curve Settings'. Under 'Curve Settings', there are dropdown menus for 'Pay=Mid / Receive=Mid', 'Basis side always at mid', 'Interpolation Method' (set to '2 - Smooth forward/Piecewise quadra'), and 'Brazilian Curve Interpolation Method' (set to '1 - Linear'). There is also a checked checkbox for 'Enable OIS Discounting/Dual-Curve Stripping'. Under 'DV01/KRR Curve Settings', there is a dropdown for 'DV01/KRR Curve Shift Options' (set to '1 - Shift Curve Instruments') and another dropdown for 'Shift Curve Instruments Settings' (set to 'A - Respect Every Curve's Instrument'). There is also a section for 'DV01/KRR Curve Shift Ccy/Curve Conv's' with a dropdown set to '(L)ibor Fixing Option' and a sub-section for 'Apply IMM Date'.

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.

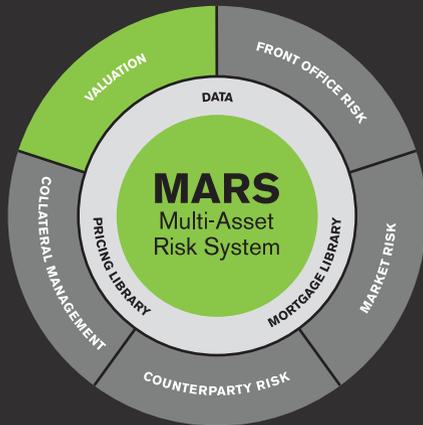
DELIVERY PROCESS

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.

The screenshot shows the 'Report Manager' interface with a progress sidebar on the left and a main configuration area on the right. The progress sidebar lists five steps: 1. Source & Sections, 2. Frequency, 3. Delivery, 4. General, and 5. Review (which is highlighted). The main area is divided into sections: 'Source & Sections' with fields for Report Title (Mars Report), Report Name (mars_report), Source (PORTFOLIO: MARS Valuation (Ccy: USD)), and Report Sections (Sections); 'Frequency' with fields for Schedule (Weekday on 17:00:00), Time Zone (America/New_York), and Evaluation Date (Evaluate portfolio as of scheduled date(s)); and 'Delivery' with fields for Delivery Format (Raw Data (*.csv)) and Delivery Method (Address). At the bottom, there are buttons for '<< Back', 'Save', and 'Close'. The text 'Step 5/5' is visible at the bottom left of the interface.

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 (MARS) 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 PROFESSIONAL SERVICE

The founding vision in 1981 was to create an information services, news and media company that provides business and financial professionals with the tools and data they need on a single, all-inclusive platform. The success of Bloomberg is due to the constant innovation of our products, unrivaled dedication to customer service and the unique way in which we constantly adapt to an ever-changing marketplace.

The Bloomberg Professional® service is a powerful and flexible tool for financial professionals — whatever their needs — in cash and derivatives markets as diverse as equities, currencies, commodities, money markets, government and municipal securities, mortgages, indices, insurance and legal information. The Bloomberg Professional service seamlessly integrates the very best in real-time data, news and analytics.

In addition, Bloomberg users benefit from on-demand multimedia content, extensive electronic trading capabilities and a superior communications platform. Bloomberg customers include influential decision makers in finance, business and government. Business and financial professionals recognize the Bloomberg Professional service as the definitive tool for achieving their goals because it offers unparalleled assistance and functionality on a single platform for a single price.

LEARN MORE

Not only does Bloomberg's MARS Valuations solution help address the needs you have today, it also prepares you for those to come. To learn more about Bloomberg's risk solutions, visit [RISK <GO>](#) or contact us at mars_val@bloomberg.net

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