

MARS XVA

A Bloomberg Professional Services Offering

ADJUST YOUR PERSPECTIVE.

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MANAGE OTC DERIVATIVE COUNTERPARTY RISK

As OTC derivative valuation becomes more complex — and the realm of counterparty risk management continues to expand — market valuations must include the costs of credit, funding and capital to accurately reflect true economic value. Regulatory and accounting changes over the past decade have served to further heighten focus on valuation adjustments and their underlying exposures — not only for sell-side market makers but also for end-user clients.

Bloomberg's MARS XVA solution enables both front-office and risk management professionals to quantify these costs and manage the associated risks across a firm's entire portfolio of OTC transactions — using innovative analytics to facilitate XVA reporting, shareholder value metrics and firm value metrics. Automated workflow enables users to investigate the drivers of daily changes in XVA and exposures — from the enterprise level down to individual counterparties — to pinpoint exposure concentrations and identify the key drivers of risk.

A COMPLETE XVA SOLUTION

Built on Bloomberg's market-leading data, pricing and analytics, MARS XVA is a comprehensive solution for counterparty risk analytics and reporting — designed to meet the needs of both front-office traders calculating and hedging XVA and credit department risk managers focused on exposure management through PFE.

POWERFUL FRONT-OFFICE ANALYTICS

For XVA traders focused on pricing and hedging the daily PNL arising from changes in valuation adjustments, MARS's multi-asset class solution provides all the XVA metrics currently used in OTC derivative markets — implemented in a new and rigorous manner. Changes in these XVA metrics can be significant drivers of a firm's profit and loss, making the ability to calculate the sensitivities of these metrics vital for hedging purposes. MARS addresses each of the risk components required of a modern, fully compliant XVA solution:

Credit

While interbank trading in vanilla interest rate and FX derivatives has migrated toward central clearing, trading between banks and corporates, sovereigns and pension funds remains primarily bilateral. The importance of quantifying expected counterparty losses through CVA is now widely accepted.

Funding

With banks no longer able to fund at pre-financial crisis levels, the market has come to recognize the importance of comprehensively quantifying the funding costs of OTC derivative portfolios. These costs arise both from counterparties trading under less-than-perfect variation margin arrangements (quantified through FVA) and from the initial margin costs incurred under the non-cleared margin rules for bilateral trading (quantified through MVA).

Capital

Capital requirements for counterparty default risk have increased substantially since the crisis and a new CVA capital charge has been implemented. Quantifying these capital requirements both at the time of trading and on an ongoing basis is necessary to ensure that a firm optimizes its capital usage.

FLEXIBLE RISK MANAGEMENT

For credit department officers tasked with authorizing new trades and managing aggregate counterparty risk, MARS XVA provides the ability to flexibly aggregate exposures for internal risk management, management reporting and regulatory compliance — comprehensive capabilities that enable firms to consolidate all counterparty risk calculations in one place.

FULLY INTEGRATED WORKFLOW

Bloomberg's MARS XVA provides your enterprise with a market-leading solution that can capture the full set of your trade portfolios and contractual provisions and calculate risk metrics in a comprehensive and integrated manner.

SEAMLESS SOLUTIONS

MARS XVA is tightly integrated with the other products in the MARS suite of risk management tools and leverages our existing functions to provide a seamless workflow. Counterparty Master Agreements and Credit Support Annexes are captured in the LEDO database originally built for our MARS Collateral Management solution. Positions and collateral balances can be uploaded from an external OMS into MARS as necessary through our MARS uploader framework.

FLEXIBLE SCHEDULING

The MARS XVA batch scheduler enables you to customize and schedule your daily batch runs, specifying the metrics to be calculated, the parameters you wish to use and the frequency and timing of each. The MARS XVA result viewer allows you to visualize and flexibly query all batch results. Detailed views can be set up to enable you to aggregate your risk across counterparties, by region or by counterparty type. Flexible risk aggregation and reporting allow you to interactively slice, dice and visualize data by sector, rating and country. Starting from a top-level view across the whole firm, you can drill down through counterparty hierarchies to position-level detail. XVA metrics and the associated exposure profiles through time can be viewed for all counterparties, while the flexible workflow facilitates easy What-If Analysis of the incremental effects of adding or removing trades on these metrics.

COMPREHENSIVE DATA

MARS XVA is fully integrated with Bloomberg's extensive market data libraries and state-of-the-art credit analytics. In addition to accessing market CDS data for publicly traded names, clients are able to use Bloomberg's DRSK model to generate model-implied CDS spread curves for non-traded names that can seamlessly feed to XVA calculations.

EXTENSIVE COVERAGE

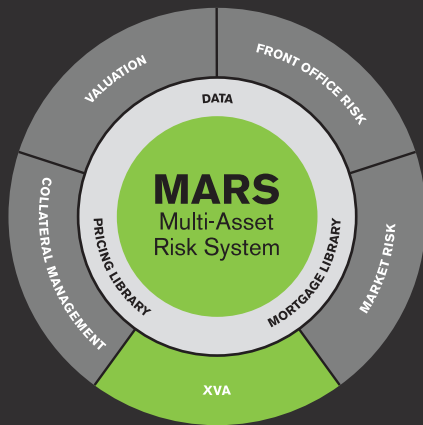
The MARS XVA engine covers an extensive range of the interest rate, foreign exchange and equity derivatives that are available on the Bloomberg Terminal®, including exotic deals that can be created in DLIB using standard templates or the BLAN scripting language.

COMPREHENSIVE XVA METRICS

MARS XVA provides a full suite of metrics to enable you to quantify your credit, funding and capital risks. In addition to providing the familiar CVA/DVA metrics commonly used as inputs for fair value reporting, funding and margin adjustments are included as part of a comprehensive new set of shareholder and firm value metrics. Capital requirements for both the counterparty credit risk charge implemented under Basel II and the CVA capital charge introduced under Basel III are calculated, enabling you to proactively manage your capital utilization.

MARS XVA METRICS

Unilateral CVA Metrics	UCVA – Unilateral CVA UDVA – Unilateral DVA
Shareholder Value Metrics	FCVA – Funding curve discounted credit valuation adjustment FVA – Funding valuation adjustment MVA – Margin valuation adjustment
Firm Value Metrics	FTDCVA – First-to-default credit valuation adjustment FTDDVA – First-to-default debit valuation adjustment FVVMVA – Firm value variation margin valuation adjustment FVIMVA – Firm value initial margin valuation adjustment
Risk Management Metrics	PFE – Potential future exposure
Regulatory Capital Metrics	Counterparty credit risk capital using SA-CCR as EAD input CVA capital calculated using BA-CVA approach



MARS Multi-Asset Risk System

The Multi-Asset Risk System (MARS) provides consistent and consolidated valuation, product life-cycle 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, unrivalled 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 XVA 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 riskinfo@bloomberg.net.

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