Adjust your perspective.

Bloomberg Terminal

Risk & Valuations

Bloomberg Professional Services

Contents

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 calculatingand 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.

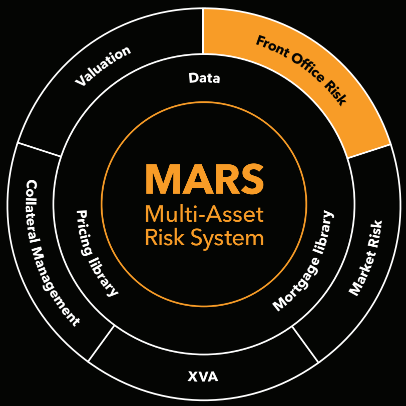
Comprehensive XVA metrics.

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 the counterparty credit risk charge are provided based on the SA-CCR approach for calculating exposure at default. The CVA capital charges introduced in the final version of Basel III will also be added once finalized.

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

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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