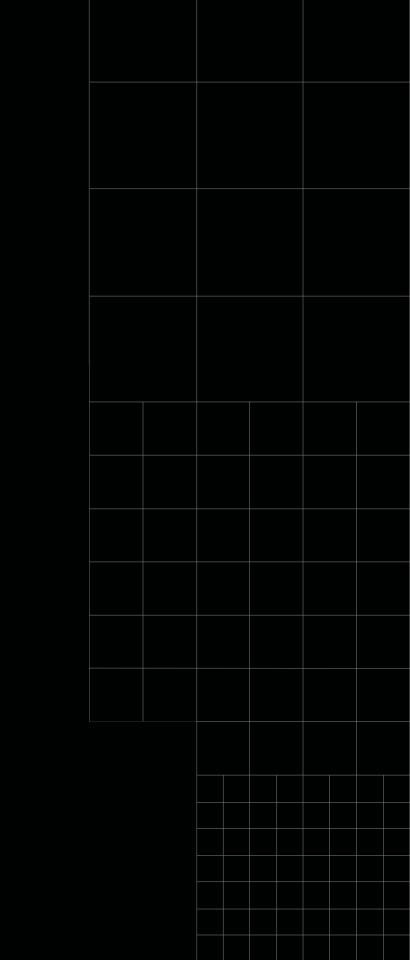


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Bloomberg



Contents

- Complete hedge accounting solution
- Macro fair value hedge accounting
- Last-of-layer hedge accounting
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Complete hedge accounting solution

Bloomberg's market-leading, seamlessly integrated hedge accounting platform provides a full solution enabling financial institutions to comply with the requirements of the hedge accounting and related financial instrument standards. The system facilitates the creation of coterminous hedge documentation, prospective hedge assessment testing to determine if a strategy can be considered highly effective, and measurement of hedge effectiveness under both international and U.S. accounting standards.

Our hedge accounting solution is continually updated as new accounting standard guidelines are published and market practice evolves, to ensure the system is always current. Bloomberg updates the underlying valuation tools as market convention changes, for example inter-bank offered rate transition.

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

Pricing and data

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

Front office risk Intraday pricing

- & Greeks • End-of-day &
- on-demand risk reports
- P&L Explain
- What-if trade analysis
- Pre-trade margin
- Scenarios & stress testing
- Portfolio margin calculations
- Lifecycle management
- Projected & stressed cash flows
- Regulatory analytics (PRIIPS, SIMM)
- Excel derivatives & mortgage toolkits

Market risk

- Full revaluation VaR & expected shortfall
- Greek sensitivities
- Historical. hypothetical & predictive stress tests
- Tracking error & relative risk statistics
- FRTB regulatory capital
- Buy & sell-side regulatory reporting
- Pre & posttrade analytics for all risk measures

Credit risk

- Portfolio. obligor & obligation analysis
- Early warning/ outlier identification
- Credit scorecards & benchmarking
- Default probability with term structure
- Model-implied CDS
- Loss given default & recovery
- Knowledge date & as-of date analytics

XVA

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

Hedge accounting

- US GAAP & IAS/IFRS
- Micro, macro and last-oflayer method
- Cash flow, fair value & net investment hedge types
- Monthly reporting includes: valuations, single security CVA/DVA adjustments, scenarios and settlement cash flows

Collateral management

- Legal documentation management
- Dispute management
- Portfolio margin calculations and 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

Macro fair value hedge accounting

Guidance for macro fair value hedge accounting was not specifically addressed in IFRS 9. Consequently, even when IFRS 9 is adopted for general micro hedge accounting, firms can still elect to apply IAS 39 in respect of macro fair value hedges.

Bloomberg's hedge accounting solution helps users to manage the operational and accounting complexities associated with applying solution accounting to a portfolio of dynamic hedged items that are subject to prepayment risk.

Macro fair value designation tools

- The solution optimizes the allocation and designation of hedging instruments based on expected available asset/liability headroom capacity
- Using actual repayment profiles, the system will revise the hedged item allocation and perform updated effectiveness testing
- Regression analysis can be applied to the designation as a whole on a prospective and retrospective basis
- The solution will generate all the required accounting adjustments including fair value uplift, designation and de-designation amortization profiles over the remaining life of the hedged items



Macro fair value hedging: Auto-generation of proxy loans.



Capacity test: Validate your hedge allocations against actual repayments.



Accounting adjustments: Fair value uplift, designation and de-designation amortization profiles.

Last-of-layer hedge accounting

Financial accounting standards after ASU 2017-12

For a closed portfolio of prepayable financial assets, an entity may designate as the hedged item a stated amount of the asset that's not expected to be affected by prepayments, defaults and other factors affecting the timing and amount of cash flows.

Criteria

- Closed portfolio of similar items
- Prepayable financial assets or beneficial interest(s) in portfolio of prepayable financial assets
- Probable that bottom layer will remain throughout hedge
- Requires partial-term hedging election

Effect

- Prepayments and defaults are applied to top layer first
- De-designation required if a portion is no longer expected to be outstanding
- If "last-of" layer is impacted before de-designation, hedge accounting ceases
- De-designations result in allocation of basis adjustments to individual assets
- Basis adjustments are proportional to amount de-designated

Key functionalities & features

- Trade information can be imported from trading platforms via API
- · Flexible hedge relationship definition for cash flow, net investment and fair value hedges
- Micro and portfolio macro hedge accounting
- Disclosure reports including current/non-current asset/liability breakdown, FX/IR split and OCI release
- Excluded component designations: cost of hedging approach to time value, forward points, and foreign currency basis
- Multiple benchmark curves available
- Regression, scenario analysis and dollar offset effectiveness tests
- Amortization and release schedules
- SOC 1 certification
- Transparent independent valuations and credit valuation adjustments
- Integration with Bloomberg's Multi-Asset Risk System (MARS)

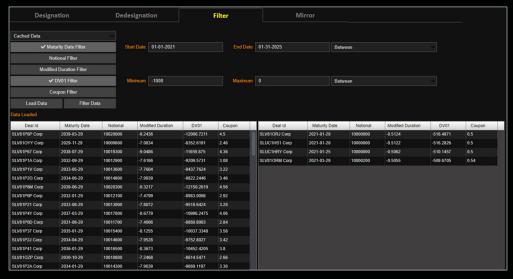
Month-end workflow control with dedicated APIs

HEFF API provides programmatic access to a scalable and modular reporting framework, via WebAPI: a popular interface, ubiquitous in our daily lives. HEFF API is a cost-effective, seamless technology enabling a more rule-based accounting month-end process:

- Schedule automated hedge accounting effectiveness tests and measurement, embedding them in the accounting month-end process
- Set up journal entry rules with programmatic access to accounting events like OCI, cost of hedging component or P&L ineffectiveness
- Obtain greater control of the month-end reporting process: integrating, consolidating and validating data from disparate sources, combined in a cohesive report that fits the firm's precise needs



API example: Create your own allocation logic, programmatically



API example: Filter your loan exposures by notional, DV01 or coupon.

Bloomberg MARS hedge accounting solution

Ensure compliance with hedge accounting and financial instrument standards (IFRS and FAS).



Automation & transparency

- Flexible hedge relationship definition for cash flow, net investments and fair value hedges
- Cost of hedging approach to time value, forward points and foreign currency basis
- Transparent independent valuations and credit valuation adjustments
- Integration with MARS



Reporting & documentation

- Coterminous hedge documentation
- Disclosure reports including current/noncurrent asset/liability breakdown, FX/IR split, OCI release
- Amortization and release schedules



Quantitative effectiveness testing

- Prospective and retrospective hedge assessment testing
- Regression, scenario analysis and dollar offset effectiveness



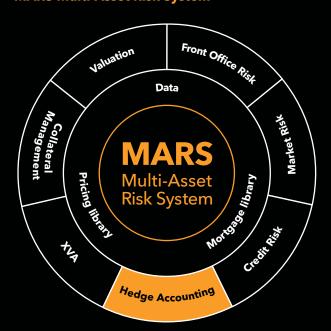
Controls

framework

- SOC 1 certification
- Transparent methodologies
- Audit-friendly environment
- Key changes tracked in audit history



MARS Multi-Asset Risk System



MARS provides consistent and consolidated valuation, product lifecycle analysis, market risk, credit risk, counterparty risk and collateral management.

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

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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.



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