Solution Primer

Financial Services

OneSumX Market Risk

Banks are faced with market risk across their trading and banking books. While in the past market risk was almost solely oriented towards the trading book, Basel II and III have focused more on market risk in the banking book and on the integration of credit and market risk, for example with the new credit valuation adjustment (CVA) rules.

The silo-based approach for risk is being banished into the history books; future-proofed solutions should give an integrated view of P&L and risk on the balance sheet, both from a risk perspective and from a business unit perspective. With the Wolters Kluwer Risk Solution we offer this kind of integrated platform to manage all of the risks on your balance sheet.

OneSumX Market Risk

Based on a centralized data structure specifically designed for financial institutions, we offer all modern risk analytics and techniques, from basic sensitivity and gap analysis, through more advanced Value at Risk (VaR) techniques and into simultaneous dynamic simulation of credit and market risk, based on Monte Carlo modeling. Standard reports looking at the results both from a high-level balance sheet view and at a detailed contract-by-contract view offer out-of-the-box usability and can be extended into customer specific reports by the end user. Added to this is integrated regulatory compliance support, demonstrating that Wolters Kluwer Financial Services is a trusted partner able to comprehensively address all of your risk requirements.

Wolters Kluwer Financial Services offers market risk functionality as a component of its larger OneSumX Financial Risk Management, enabling the user to have an integrated view over their various risks.

Centralized data organization
Ensuring reliable data is achieved with a single data architecture specifically designed for financial institutions. This centralized data structure allows for:

- Holding of all required data for integrated risk and finance application: market, contract and reference data
- Multi-entity and multi-currency set-up
- Full data level access control to segregate roles & responsibilities
- Reconciliation and validation engines automatically ensuring data consistency at a most granular level
- Adjustments providing pre-filled corrections under strict control
- Traceability throughout the process with full transparency

Flexible product modeling
Enabling correct product valuation, cash flow generation and forecasting by:

- Assigning all contracts to a specific contract type, driving product modeling
- Extensive product coverage from plain vanilla to exotic

- Multiple valuation techniques including discounted cash flow model, capital asset pricing model, Black-Scholes (generic), Bouaziz-Briys & Crouhy, Hull-White, Ikeda & Kunitomo, Reiner & Rubinstein, Turnbull & Wakeman, Margrabe, Trinomial Trees, Libor Market Model
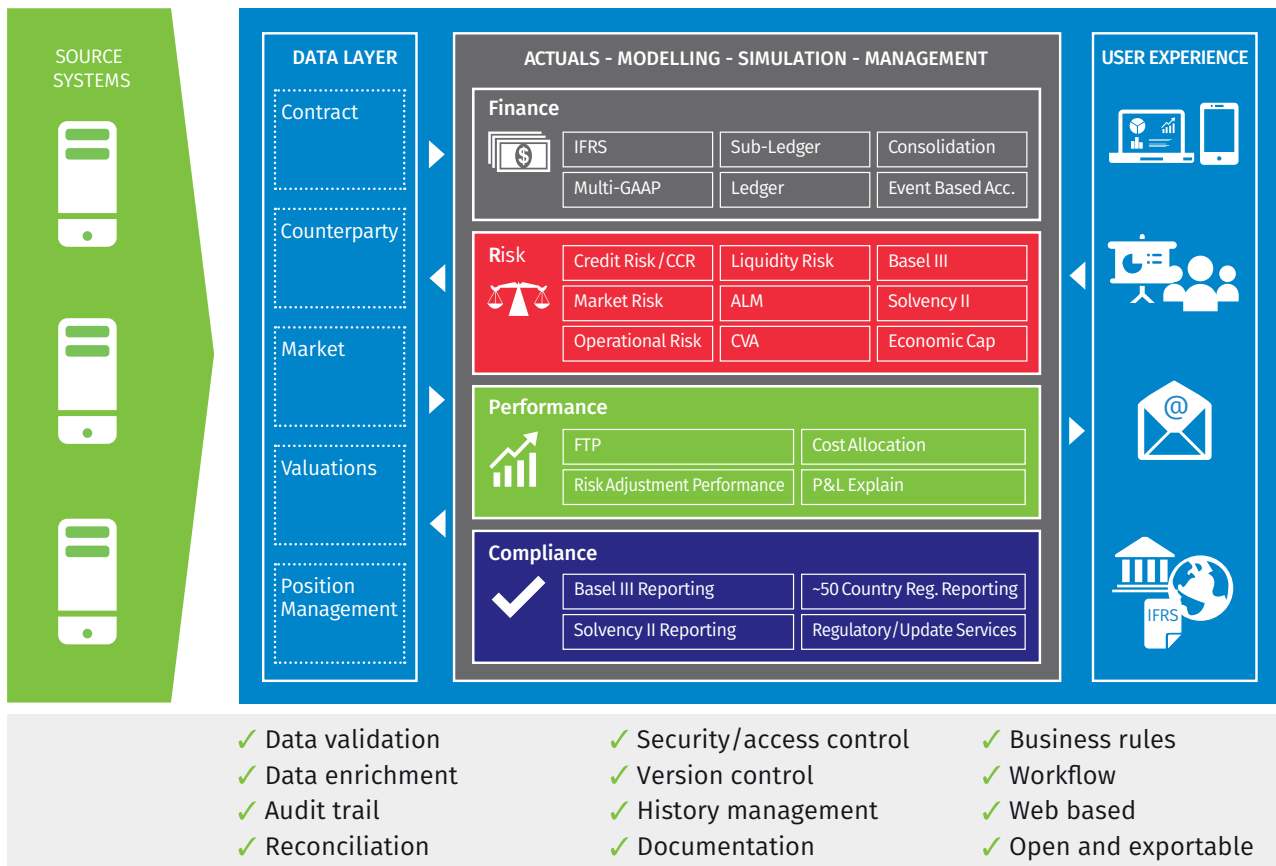
Advanced risk metrics
The core of all risk analysis is able to compute the relevant metrics using state of the art techniques:

- Value and exposure calculations, i.e. Fair value, NPV, nominal, observed market value, amortized cost, various discounting methods etc.
- Key rate duration, convexity and Greeks
- Sensitivity measures (incl. gap analysis)
- Price and volatility shift analysis for analyzing effect of price/volatility shift on income and value
- Replicating portfolio for non-maturing financial contracts/portfolios
- Fund transfer pricing (FTP) rate(s) and profitability measures (NII, EVE)
- Dynamic simulation and forecasting
- Market value of counterparty credit risk (CVA which supports Basel III compliance)
- P&L volatility and P&L explanation by risk factors

Advanced risk analysis
All modern techniques required by the industry are available out of the box:

- Full revaluation VaR model
- Parametric VaR based on RiskMetrics™ methodology
- Historical VaR
- Monte Carlo VaR
- Integrated VaR combining credit and market risk
- VaR backtesting
- VaR decomposition by risk groups to allow for analyzing impact of interest, FX or stock value on VaR
- Incremental and component VaR analysis • Stressed VaR

DATA LAYER	ACTUALS – MODELLING – SIMULATION – MANAGEMENT	USER EXPERIENCE

SOURCE SYSTEMS

DATA LAYER
- Contract
- Counterparty
- Market
- Valuations
- Position Management

ACTUALS – MODELLING – SIMULATION – MANAGEMENT

Finance

IFRS	Sub-Ledger	Consolidation
Multi-GAAP	Ledger	Event Based Acc.

Risk

Credit Risk / CCR	Liquidity Risk	Basel III
Market Risk	ALM	Solvency II
Operational Risk	CVA	Economic Cap

Performance

FTP	Cost Allocation
Risk Adjustment Performance	P&L Explain

Compliance

Basel III Reporting	~50 Country Reg. Reporting
Solvency II Reporting	Regulatory / Update Services

USER EXPERIENCE

✓ Data validation ✓ Security/access control ✓ Business rules
✓ Data enrichment ✓ Version control ✓ Workflow
✓ Audit trail ✓ History management ✓ Web based
✓ Reconciliation ✓ Documentation ✓ Open and exportable

Regulatory compliance

Regulatory compliance is addressed by our risk calculators based on the same data set:

- Standardized approach and internal model approach

- Both according to Basel requirements as for local regulators

- Regulatory Reporting for nearly 50 countries as part of OneSumX Regulatory Reporting

- Compare internal models with regulatory calculations to support Basel pillar 2 requirements

With OneSumX Market Risk customers can measure and manage their market risk both on the contract level as the portfolio level thanks to advanced industry adopted risk techniques and analytics. The solution is not limited to trading book but is specifically designed to manage the full balance sheet, including the banking book and off-balance sheet items.

As the wider OneSumX suite provides a holistic view of integrated finance and risk management, it enables the user to analyze combined credit and market risk events, and apply scenario analysis and stress testing.

Through measurement of impacts on economic and regulatory requirements, such as liquidity and capital, the solution will provide the crucial information to support managers in making the best decisions.

Further integration with the OneSumX for Finance module offers detailed analysis of finance, profitability drivers and performance-based risk measures along generic and entity-specific dimensions. Last but not least, the integration with our regulatory reporting module offers our customers the option to analyze regulatory risk requirements and internal risk measures together and optimize their balance sheet accordingly.

With OneSumX Market Risk customers can measure and manage their market risk.

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When you have to be right