Wolters Kluwer

When you have to be right

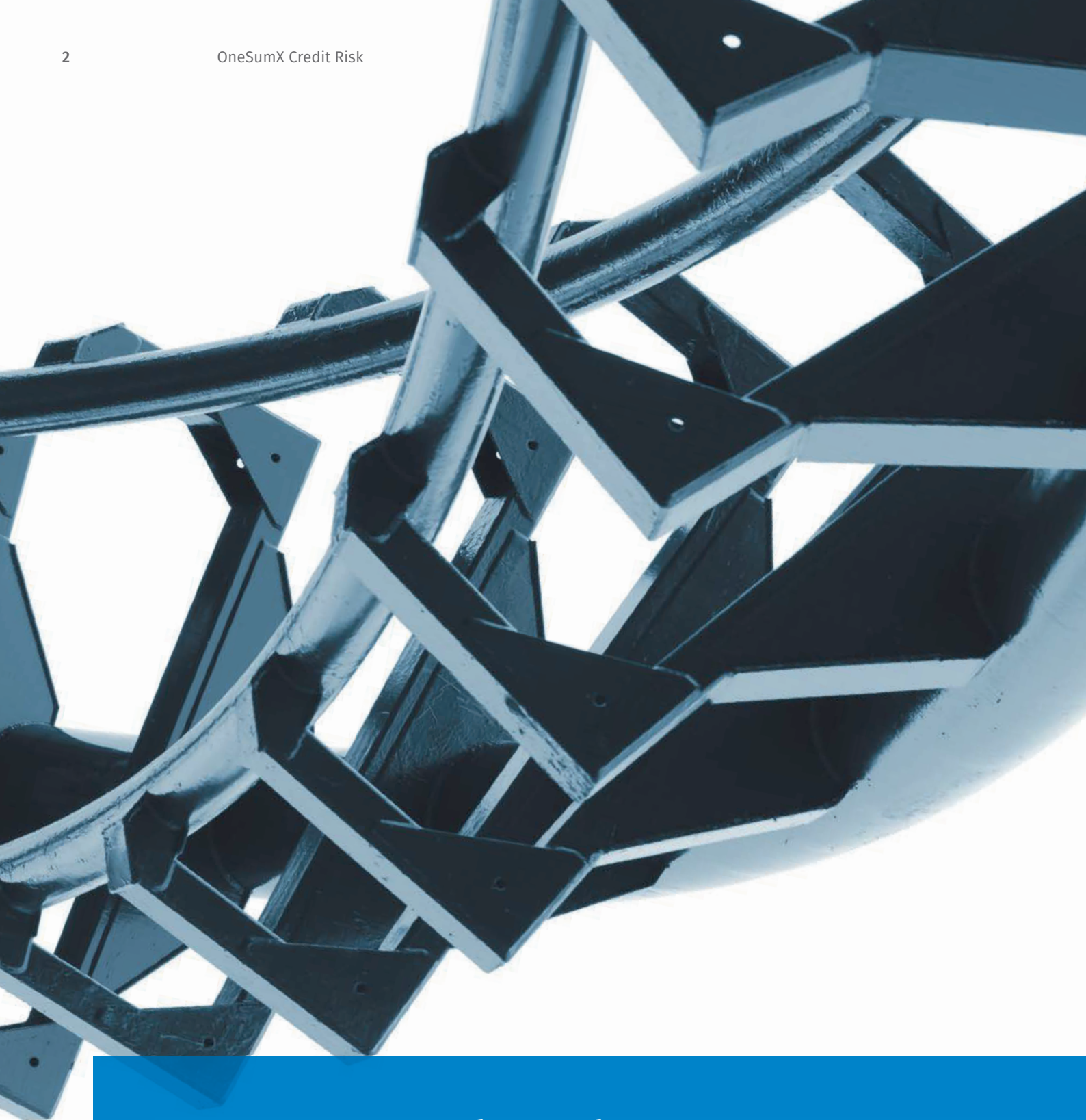
Solution Primer

Financial Services

# *OneSumX Credit Risk*

**Counterparty credit risk (the risk to each party of a contract that the counterparty will not live up to its contractual obligations) and credit risk (including Credit VaR) are driven by several parameters which are highly sensitive to market and behavioral risk. Both credit and counterparty risk appear in all types of financial contracts, from simple bonds to credit derivatives, and impact most financial events arising during the lifetime of financial instruments.**

**The analysis of credit and counterparty risk is applied in risk management and capital adequacy, pricing, profit and loss, is also crucial in defining the strategies of business evolution.**



# OneSumX Credit Risk

Financial institutions are heavily exposed to credit risk and thus failure to manage counterparty risk will result in major losses. This will impact not only the financial industry itself but more importantly the counterparties that are linked and supported by financial institutions; in other words the entire market.

Credit and counterparty risk analysis is part of business across most departments in financial institutions; it links and supports the front office management, back office analytics, treasury office, asset liability managers, regulatory compliance, risk managers, and the board of directors.

**Institutions must be able to identify and model underlying parameters of credit and counterparty risk, together with their integration to other financial risks; moreover, they should be able to estimate and report the current and future possible impacts of credit and counterparty risk with regards to value and liquidity measurement and risks under both normal and stressed conditions.**

A safe and robust financial system is epitomized by firms displaying steady profitability with minimal losses, and results that enable increased confidence of both the market and the regulators. This can only be achieved when firms have in-depth and thorough insight into their credit and counterparty risk. OneSumX Credit Risk can enable firms with all the elements needed for such comprehensive insight.

### Counterparty credit worthiness

To gain accurate insight into the maximum exposure of credit losses, firms need to be able to identify and set the parameters related to credit worthiness of a counterparty. Additionally firms need to ensure that risk against credit losses is minimized. OneSumX Credit Risk enables both, by identifying credit ratings, probability of default and migrations (transition) matrices (MMs), defining descriptive characteristics, such as seniorities, regions, etc. It also considers the hierarchy among counterparties and models behavior characteristics, such as recovery rates as well as defining and/or considering the market driven credit spreads.

### Credit exposure static and dynamic evolution

As credit exposures dynamically change over time, institutions must be able to measure, manage and adjust them by considering both current and future conditions driven by both static and dynamic market, credit and behavior risk factors. Our solution calculates current and expected gross and net credit exposures, computes the degree of exposures in both default (EAD) and non-default cases, and estimates potential future and effective credit exposures at more than one future date. It also identifies and considers volatilities and adjustments of credit exposures and tracks the evolution of credit exposures under static and dynamic credit and market conditions.

### Risk management

Credit and counterparty risks appear in all financial instruments that are placed in both on and off balancing accounts and credit portfolios, which can result in both expected and unexpected losses. OneSumX Credit Risk calculates both expected and unexpected losses and applies stress testing scenarios in all credit and counterparty risk parameters to measure and manage credit and counterparty risks.

In increasingly volatile markets, it is also vital that firms consider credit and counterparty risks as they become highly sensitive to market and behavior risks – our solution considers deterministic and/or stochastic scenarios, and applies credit VaR risk measurements based on single and multi factor model approaches. It also considers wrong way risk and both specific idiosyncratic and general sensitivities of counterparties to market and credit risk factors.

Additionally firms need to mitigate credit and counterparty risks by employing credit enhancements such as collaterals, guarantees and credit derivatives, and applying hedging products, credit enhancements, limits, netting policies and strategies to minimize the risk against credit exposures. Hedging strategies as well as credit enhancements are applied when needed, not only for absorbing credit risk losses but more importantly for increasing the degree of robustness and confidence during volatile times.

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# *Credit and counterparty analysis*

OneSumX Credit Risk calculates credit valuation adjustment (CVA), debt valuation adjustment (DVA) and funding valuation adjustment (FVA) and enables exploration of the correlation between credit, market and behavioral risk in an integrated approach.

The solution identifies and estimates the degree of systemic and concentration based on counterparty risk and credit exposure analysis and enables compliance with regulatory requirements such as Basel II/III. The analytical tools within our solution ensure that this credit and counterparty analysis and management can be reported to a firm's stakeholders.

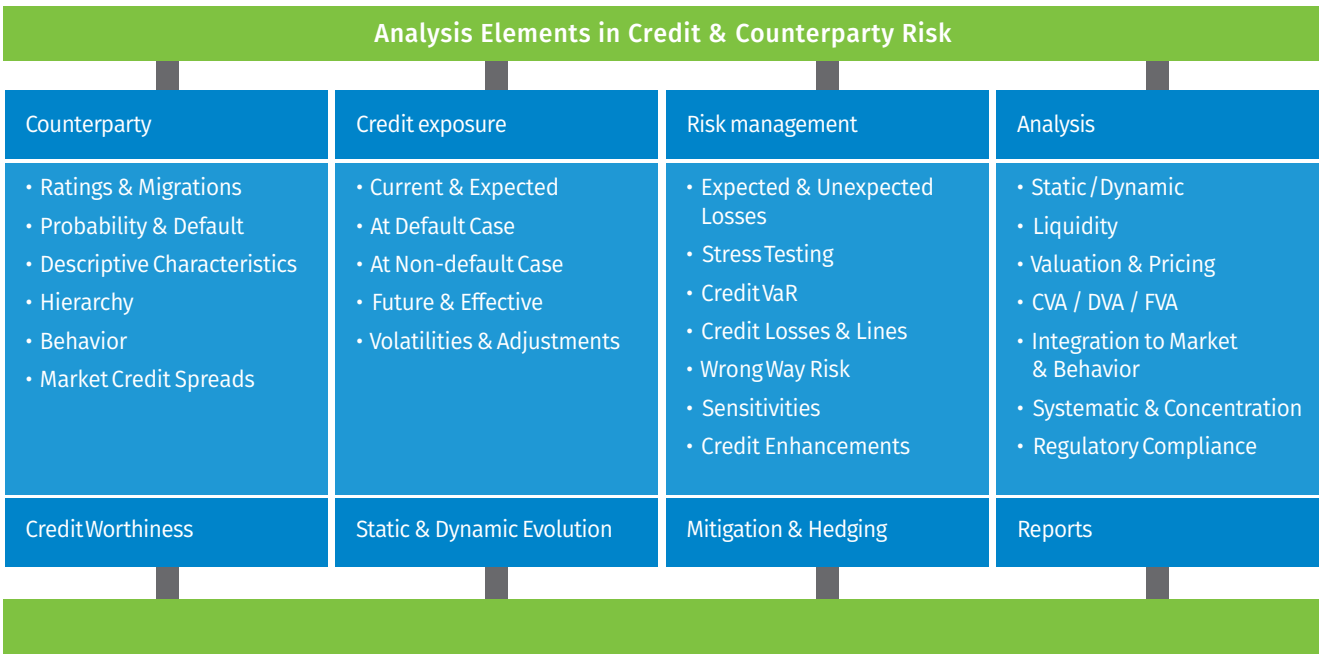
OneSumX Credit Risk is part of our overall OneSumX for Risk Management offering and handles the many and varied complex credit and counterparty risk analysis elements that firms must consider. Other financial risks such as market or liquidity risk are handled within the respective modules of the OneSumX suite.

All our financial risk management solution elements are based on a contract-based approach, whereby each financial instrument is linked to a specific counterparty, together with its related market conditions and behavior characteristics, are employed in the solution.

This contract-centric approach enables firms to identify the counterparty characteristics and credit worthiness together with behavioral characteristics and credit spreads, driven by the market conditions, in a consistent manner. The evolution of the credit exposures can also be estimated considering both static analysis and dynamic simulation in regards to the evolution of counterparty ratings, future market conditions and behavioral characteristics.

In addition, credit risk exposure, liquidity, pricing, valuation adjustments, systemic and concentration risks analysis are key results that are available as a result of the credit and counterparty risk analysis capabilities of our financial risk management solution.

*Figure 1 – Credit and counterparty risk analysis elements*



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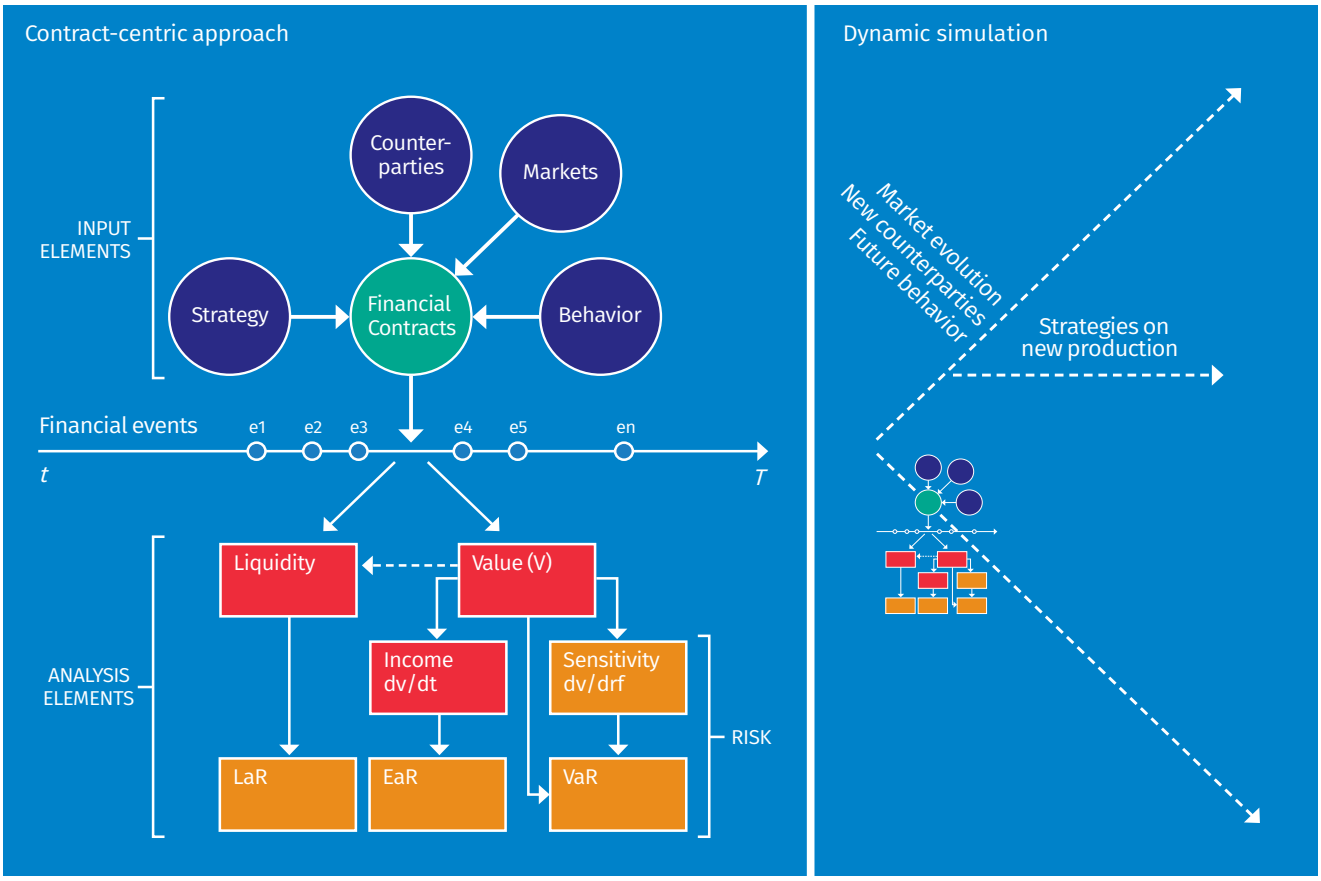
# Contract-centric approach and dynamic simulation

OneSumX Credit Risk can be used to calculate the expected and unexpected credit losses by considering deterministic stress scenarios as well as stochastic process (Credit VaR) approaches. Specific risk cases such as wrong way risk, sensitivity analysis, migration, and credit risk exposure hedging are also key elements within the solution.

The data source produced by our OneSumX Regulatory Reporting module can be fed into the risk management solution to produce reliable and consistent MIS/risk reports that provide clear insight into the businesses' profitability, performance, and risk analysis.

Both standard and customized reports and dashboards, for analytics specifically for the C-level and board of directors levels, are available as part of the solution.

*Figure 2 – Contract-centric approach and dynamic simulation*



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Wolters Kluwer (WKL) is a global leader in professional information, software solutions, and services for the healthcare; tax and accounting; governance, risk and compliance; and legal and regulatory sectors. We help our customers make critical decisions every day by providing expert solutions that combine deep domain knowledge with specialized technologies and services. Wolters Kluwer reported 2019 annual revenues of €4.6 billion.

The group serves customers in over 180 countries, maintains operations in over 40 countries, and employs approximately 19,000 people worldwide. The company is headquartered in Alphen aan den Rijn, the Netherlands. Wolters Kluwer shares are listed on Euronext Amsterdam (WKL) and are included in the AEX and Euronext 100 indices. Wolters Kluwer has a sponsored Level 1 American Depositary Receipt (ADR) program. The ADRs are traded on the over-the-counter market in the U.S. (WTKWY).



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