OneSumX® Asset and Liability Management (ALM)

ALM is as much an art as a science. As a consequence, an ALM solution should provide all the analytical tools to support the quantitative elements but also deliver flexibility both in setting up analytics and in reporting, to allow expert interpretation of the analytical results.

Where ALM in the past was focused on interest rate risk, today a more holistic view of balance sheet risks is required. Interest rate risk, both in the banking and the trading book cannot be viewed in isolation from liquidity risk, funds transfer pricing, or capital management.

Balance sheets have become more volatile – a result of changing term structures, optionality, better informed customers and the use of derivatives. To manage this situation effectively, financial institutions need a solution that allows continuous risk assessment while supporting exploration of multiple scenarios and simulations, both strategically and on an ad-hoc basis.

This will enable banks to take a pro-active approach towards risk management, developing and improving their strategy to avoid losses and maximize profitability.

As regulators are increasingly focused on ALM, regulatory metrics should be analyzed together with internal measures, preferably using the same solution, calculated on the same sets of high quality data and bank-specific modeling assumptions as the internal calculations.

International financial institutions ideally use a centralized ALM solution providing a holistic view on their risks, both locally as well as globally, and integrating the regulatory view and the internal view based on strategic goals and risk appetite. Moreover, a solution should be truly embedded in the organization and support and facilitate senior management oversight, risk management policies and procedures.
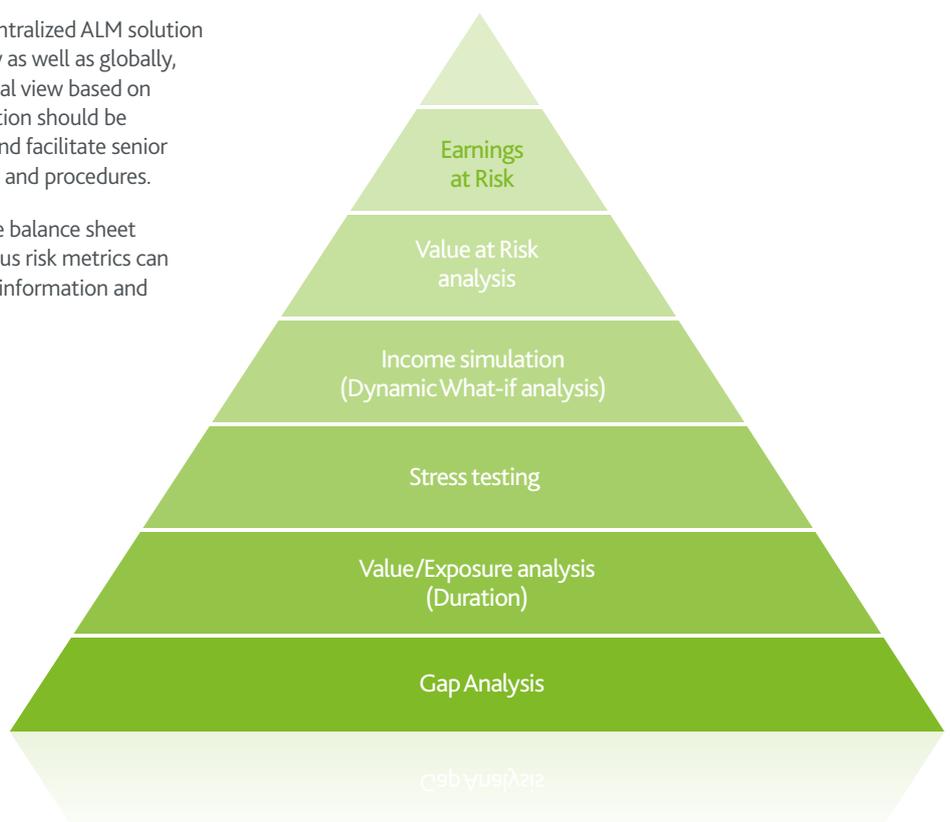
OneSumX ALM is contract-centric; it builds up the balance sheet based on the details of contracts from which various risk metrics can be calculated, including risk factors, counterparty information and behavioral modeling.
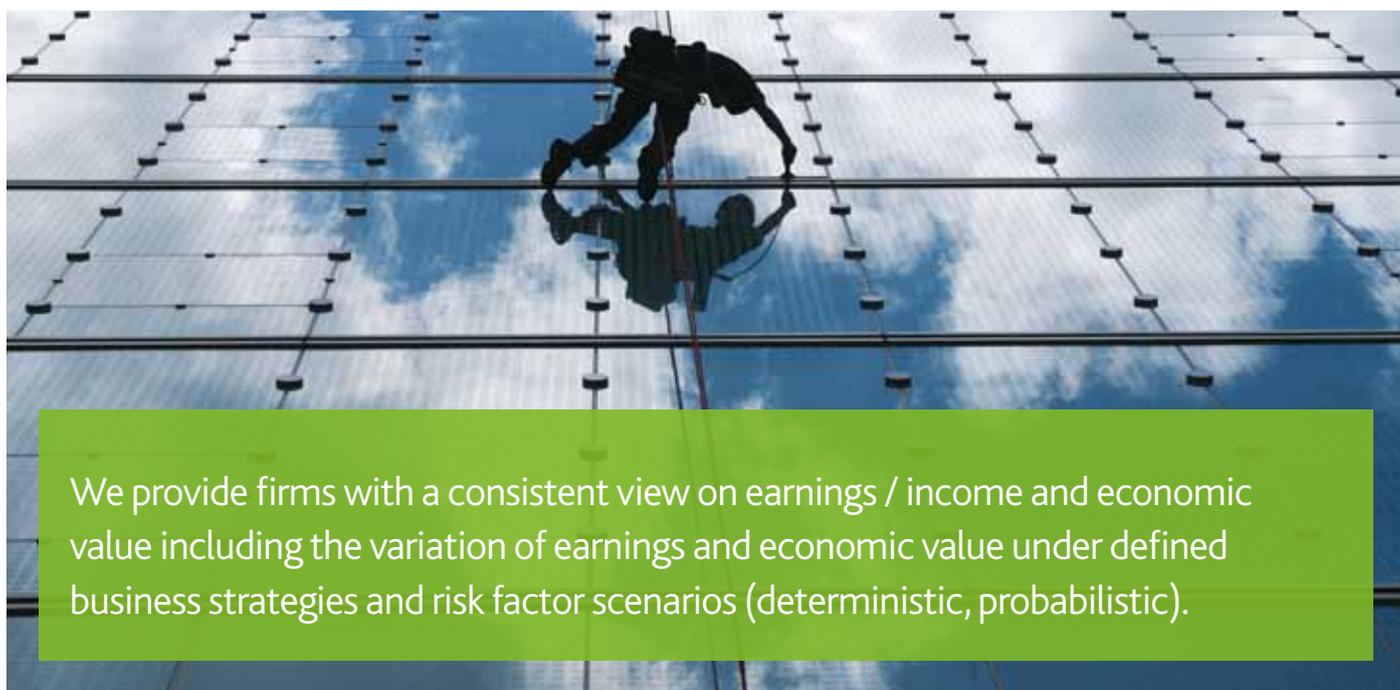
A centralized data repository combining contract data, balance sheet structures, counterparty and market data complements the ALM solution and is an integral part of the overall system.

Within OneSumX ALM, every product type available on a financial institution's balance sheets can be modeled and valued, with cash flows generated on a financial events timeline for further analysis. Basic methods such as gap analysis and more advanced simulation techniques including value-at-risk, earnings-at-risk and liquidity-at-risk are all supported and can be combined together.

Both static and dynamic assumptions are possible and behavioral assumptions can go from rather basic to bank-specific modeling thanks to the integrated modeling features within our standard solution. Not only are ALM risk factors taken into account, but also credit events can influence the ALM analytics offering a truly integrated risk view.

Next to data and analysis possibilities, reporting is equally important in today's regulatory landscape. From senior management dashboards to risk officers portfolio performance, detailed reporting is available as a standard, out-of-the-box function with extensive drill-through capabilities for explanation on how results are achieved and based upon which data and assumptions.

Earnings at Risk

Value at Risk analysis

Income simulation (Dynamic What-if analysis)

Stress testing

Value/Exposure analysis (Duration)

Gap Analysis

We provide firms with a consistent view on earnings / income and economic value including the variation of earnings and economic value under defined business strategies and risk factor scenarios (deterministic, probabilistic).

Balance sheet modeling

OneSumX ALM offers flexible balance sheet modeling and accommodates multiple structures on the same data to allow multi-entity implementations and accommodate different user types, each having their own view on the balance sheet. The full balance sheet can be modeled, including equity, off-balance, balancing accounts for cash flows and accruals.

Our solution incorporates a broad range of pricing models 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

The pricing model allocation takes place by default by instrument type, but can be modified according to the needs of the customer. Embedded options that are considered to be executed efficiently are supported through our set of contract types such as put-able/ call-able contracts and cap floor contracts with various exercise features (European, American, Bermudian).

Embedded options that are considered to be exercised inefficiently can be modeled through the prepayment functionality where users can define deterministic and contingent prepayment speed models.

Yield curves can be interfaced directly, derived from other curves such as spread added/subtracted or sum, based on discount factors or a product/ratio of discount factors and even modeled by a user-defined code if the standard options do not suit your needs. All standard business day conventions are available in the product.

Behavioral modeling can be applied by standard templates for prepayment, sale of A/L, replication, credit line drawings and many more. If standard templates are not sufficient then user-configured models can be entered directly in the user interface.

For forecasting, new production scenario templates are also foreseen, where a user can easily configure volumes by product type with the new production characteristics different or equal to current production, reinvestment and rollover properties and even non-financial cash flows.

Risk Measurement

Collecting the financial events e.g. interest or capital payments, capitalizations, pre-payments, withdrawals or option payments allows us to measure value, income and liquidity under current and stressed conditions of the environment. This is done by stressing the elements of the environment such as ratings, default probabilities or interest rates – individually and/or jointly.

We provide firms with a consistent view on earnings / income and economic value including the variation of earnings and economic value under defined business strategies and risk factor scenarios (deterministic, probabilistic). Our solution provides extensive ALM functionality that allows easy to use modeling of the future balance sheet with respect to business strategies and customer behavior and the impact on value and income.

We incorporate a broad range of statistical measures including:

- Nominal value
- Book value
- Fair value
- Sensitivity gap
- Tenor gap
- $-exposure
- $-duration
- $-convexity
- $-Greeks
- CE, EE, PFE, expected loss, etc.

Apart from the various value and exposure measures, our solution incorporates income and economic value measures like NII, EVE FXI, BI etc. It also includes extensive FTP functionality such as: rate assignment, accrual method, replication of non-maturing contracts, prepayments and cost elements.

OneSumX ALM solution allows financial institutions to assess and measure market risk (currency risk, interest rate risk, equity risk, property risk, spread risk, volatility risk) using standard and advanced analytics (VaR, EaR) in respect to value and income in static and dynamic analysis.

Risk Management

To support effective risk measurement the solution has an intuitive user interface, allowing end users to quickly run ad-hoc scenarios based on changed assumptions, market risk factors or growth assumptions as well as stress testing various scenarios.

The in-built reporting tools provide rapid visualization of the results for ad-hoc reporting, broken down by a combination of dimensions defined by the user. Standard reports are also provided to deliver an easy start for producing standard asset-liability committee reports.

Regulatory Compliance

Our solution incorporates predefined templates for regulatory compliance such as interest rate risk in the banking book, liquidity coverage ratios (LCRs) and net stable funding ratios (NSFRs). We also support public disclosure reporting requirements set forth by the Basel Committee on Banking Supervision (BCBS) regarding the public disclosure of information on interest rate risk and liquidity risk.

OneSumX ALM is based on our integrated data architecture and easily extensible into risk and finance areas. OneSumX allows senior management to monitor and control risk via our dashboard and ERM workflow capabilities.

The built-in workflow functionality in the OneSumX suite tailors the behavior according to the various users to help firms define the units responsible for the design and administration of a firm's risk measurement, monitoring and control functions.

In short, we offer:

- A clean, comprehensive view of risk, facilitating decision taking based on the right information.

- Pre-built templates allowing users to take advantage of our wealth of knowledge and expertise.

- A single source of data to ensure consistency, availability, reconciliation and accuracy across departments.

- An enterprise-wide risk picture.

- Continuity between ALM and regulatory reporting submissions.

Within OneSumX ALM, every product type available on a financial institution's balance sheets can be modeled and valued, with cash flows generated on a financial events timeline for further analysis.

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Wolters Kluwer Financial Services provides more than 15,000 customers worldwide with risk management, compliance, finance and audit solutions that help them successfully navigate regulatory complexity, optimize risk and financial performance, and manage data to support critical decisions. With more than 30 offices in 20 countries, our prominent brands include: AppOne®, ARC Logics®, AuthenticWeb™, Bankers Systems®, Capital Changes, CASH Suite™, FRSGlobal, FinArch, GainsKeeper®, NILS®, OneSumX®, TeamMate®, Uniform Forms™, VMP®Mortgage Solutions and Wiz®. Wolters Kluwer Financial Services is part of Wolters Kluwer, which had 2013 annual revenues of €3.6 billion ($4.7 billion), employs 19,000 employees worldwide, and maintains operations in over 40 countries across Europe, North America, Asia Pacific, and Latin America. Wolters Kluwer is headquartered in Alphen aan den Rijn, the Netherlands. Its shares are quoted on Euronext Amsterdam (WKL) and are included in the AEX and Euronext 100 indices.

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