



Solution Primer

Financial Services

OneSumX Integrated Risk and Reporting for Pillar 2 in Asia Pacific

In the last couple of years, while Basel IV has been evolving on multiple fronts, regulators across various jurisdictions in Asia have set down their Pillar 2 requirements and expectations. Banks and other regulated financial firms must comply with these standards.

The purpose of Pillar 2 is to identify, and address risks not adequately captured by Pillar 1. Under Pillar 2, the Australian Prudential Regulatory Authority (APRA) assesses how robust a firm's business model is, on a forward-looking basis under stress, including resilience to unanticipated changes. Stress events impact cash flows, liquidity, profitability, and solvency, where the implementation of Pillar 2 is a powerful regulatory tool. Hence, firms must carry out stress tests and scenario analysis to build their contingency plans to preserve their viability and protect their customers and investors.



OneSumX Integrated Risk and Reporting for Pillar 2 in APAC

The Pillar 2 framework, as recommended by APRA, allows firms to appreciate intertemporal risk dynamics, and provide important information to APRA on how a firm may use management actions, to preserve its franchise should an adverse market event occur.

The Stress Testing paper published by APRA in December 2020, lays out scenario overviews and Stress Test results and related key drivers. It also summarizes the salient learnings and steps going forward. To quote from the paper, “Stress testing is a core prudential tool APRA uses to assess the adequacy of bank capital to withstand adverse economic conditions. The primary objective is to provide assurance of the resilience of the banking system to a severe shock.”

From a practical standpoint, APRA’s Pillar 2 puts the onus on CFOs and CROs to consider how they address the new requirements. Typically, such an exercise would require close collaboration with heads of various risk departments to ensure an integrated view of

the impact of stress testing, cash flows, liquidity, profitability, and solvency before and after management actions.

As firms produce forward-looking Capital Management positions, it is also interesting to note how APRA has used the results to advise on proportions of capital – in both Tier 1 and Tier 2 categories – to provide some flexibility in managing capital. In Prudential Standard APS 110, APRA requires that a bank uses a Capital Conservation Buffer over and above its baseline capital requirements, as well as a Counter-cyclical buffer.

In a similar vein, Hong Kong Monetary Authority’s (HKMA) CA-G-5 describes how the Pillar 2 framework will operate under the capital adequacy framework and is part of HKMA. Pillar 2 guidelines reflect risks not captured, or not adequately captured, in Pillar 1. In addition, the Pillar 2 capital requirement provides a capital cushion to bolster resilience in times of stress without reference to specific risks.

Besides APRA and HKMA, regulators in China, Singapore and Thailand have emphasized Pillar 2 calculations as part of their supervisory process.

However, as we have noticed, most departments within a bank tend to have their own systems for stress testing purposes – one for Credit Risk, one for Market Risk, another for Interest Rate Risk and yet another for liquidity risk. Therefore, achieving an integrated view across the cash flows, liquidity, profitability, and solvency remains a great challenge for the majority.

The inefficiency stems from having to model for the same business plan – across macro-economic forecasts and risk factors multiple times, using a different risk system each time. This can result in duplicating efforts, as well as introducing inconsistencies, given that each risk system has its data and models – ultimately increasing the firm's operational risk. Besides, from a decision standpoint, the potential variance in results creates interpretational and strategic challenges.

Deploying a single solution which uses a unified data model, macro-economic forecasts and risk factors that can be combined across risk classes – allows for the derivation of baseline and stressed outcomes – before and after management actions. This approach of a single calculation run not only delivers operational efficiency but also provides an integrated and consistent view for the CRO, CFO, CEO and Board. Conducted in this unified fashion, makes Pillar 2 calculations an essential tool in managing the business.

OneSumX Integrated Risk and Reporting for Pillar 2 solution delivers a wide set of capabilities to support Pillar 2, ILAAP and ICAAP requirements. The analysis calculates the new Pillar 2 charges for the Standardized Approach and Concentration Risk alongside impact analysis for Basel III and related concentration charges.

OneSumX Integrated Risk and Reporting for Pillar 2 solution also delivers liquidity stress testing, multi-year ad-hoc projections of risk, income/expense, liquidity, profitability and capital adequacy with shared micro-and macro-economic assumptions, growth assumptions and stresses, to support many facets of Pillar 2.

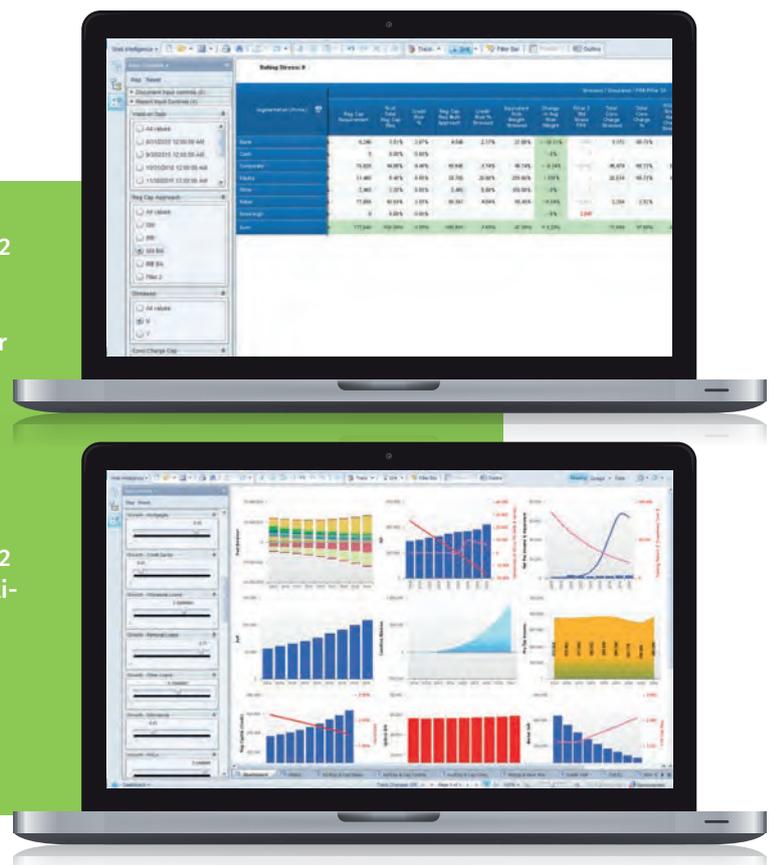
The OneSumX Integrated Risk and Reporting for Pillar 2 solution delivers firms an integrated risk platform designed to address the key areas of Pillar 2 quantitative requirements.

OneSumX Integrated Risk and Reporting for Pillar 2 solution is built upon a single data model and single modeling platform that provides consistent application of analytics and scenarios. It delivers unified and enterprise-wide results across risk classes.

The modeling tools allow users to compare business-as-usual and forward-looking plans to stress scenarios, the results of which can be used for management actions. The reporting tools allow the graphical display of key risk metrics, compare outcomes across systems and deliver regulatory reporting templates for jurisdiction specific reporting as required by APAC regulators.

Key benefits:

- Improve operational efficiency
- Drive forward-looking view of the business
- Overcome challenges around increased costs and inefficiency due to data duplication, inconsistent modeling across risk classes, and avoid manually intensive reconciliation between Pillar 1 and 2
- Benefit from full data versioning and lineage



OneSumX Integrated Risk and Reporting for Pillar 2

Highlights of the OneSumX Integrated Risk and Reporting for Pillar 2 solution coverage by risk type:

Credit Risk – application of the regulator’s benchmark risk weights to respective asset classes.

Market Risk – assess and stress illiquid, concentrated and one-way positions by considering the integration among the stressed market risk factors.

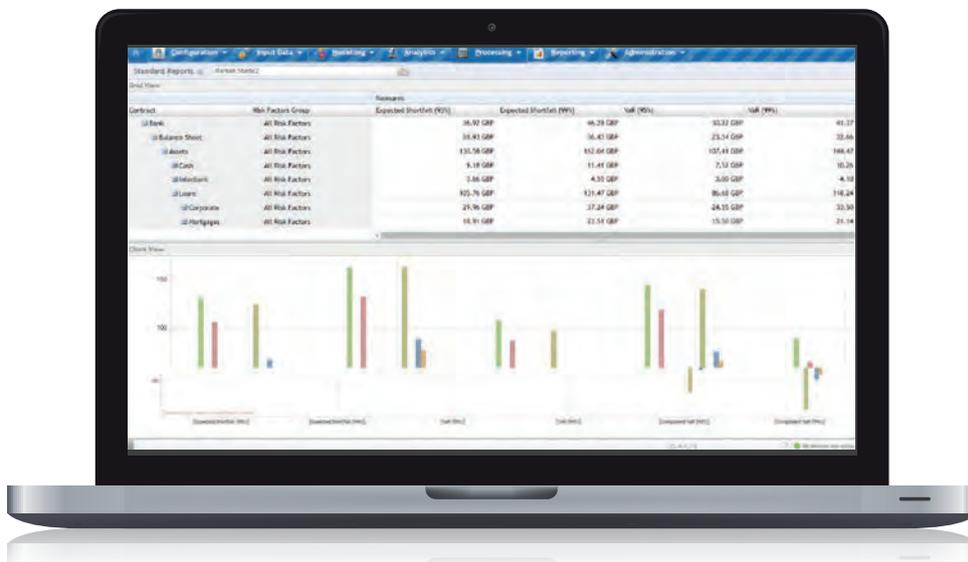
Determine VaR, stressed VaR, expected shortfall (ES) and stressed ES based on a 1 in 1,000-year confidence level over a one-year time horizon. Calculate the difference between Pillar 1, Pillar 1 adjustments for model risk and a 1 in a 1,000-year event to estimate the Pillar 2. Furthermore, assess the new FRTB rules’ impact before they go live to manage positions and risks pre-emptively.

Counterparty Credit Risk – assess and improve risk management practices in respect of derivatives, margin lending, securities lending, repo and reverse repo or long settlement business through analysis and stressing of settlement risk, collateral management, wrong-way risk and model validation.

Assess the impact of the revised rules for SA-CCR to improve ISDA contract negotiation and improve capital planning.

Credit Concentration Risk – measure and manage single name, sector and geographic concentration using the Herfindahl-Hirschman Index (HHI) under stress scenarios. Map HHI output ranges to capital add-ons and report them in ICAAP.

Interest Rate Risk in the Banking Book – classify the positions exposed to interest rate risk, identify and determine the expected cash flows, measure, manage and report duration risk, basis risk and optionality risk. Use alternate behavioral and stochastic and deterministic stress scenarios to estimate interest gap, VaR, NII, NIM, EVE, ΔEVE and EaR. Understand and mitigate the risks from different interest rate shocks on fixed, floating, derivate and non-maturing assets and liabilities. Apply capital add-ons and regulatory aggregations rules.





Capital Buffer – calculate the amount of capital, both quality and quantity, to cover the firm’s Pillar 1 and Pillar 2 risk under severe stress. Assess the impact of APRA’s Countercyclical buffer (CCyB) as per APS 110.x, as well as HKMA’s CA-B-1 and CA-B-3 for scenarios and sensitivity analysis per jurisdiction.

Liquidity Risk – measure, monitor, manage and stress all contractual funding as well as market liquidity risk from cash flow mismatch. Assess risk to survival horizon, net liquidity position, peak marginal and cumulative outflows across a wide range of scenarios – that include debt-buy back, margined and non-margined derivatives as well as securities financing transactions.

Leverage – measure, monitor, manage and stress all aspects of leverage ratio, considering potential jurisdiction specific changes to SA-CCR and NSFR that directly impact leverage.

Profitability – conduct dynamic analysis in both static and going concern basis. Define, measure, monitor and manage profit or loss, net interest income and net interest margin as well as FTP rates, Return on Risk Weighted Assets (RoRWA) and Return on Equity (RoE).

Economic Capital – compare regulatory capital requirements against alternative measures of economic capital using classical models based on VaR, Default type (CreditRisk+) and Transition type (CreditMetrics) with proprietary enhancements at different confidence levels.

Improve operational efficiency and drive a forward-looking view of the business

OneSumX Integrated Risk solution is a best-in-class risk management and reporting solution. The solution helps firms improve operational efficiency and drive a more forward-looking view of the business required by regulators by maintaining a link between a firm's risk profile, risk management, risk mitigation systems and its capital and liquidity planning

Deploying a single solution which uses a unified data model, macro-economic forecasts and risk factors that can be combined across risk classes – allows for the derivation of baseline and stressed outcomes – before and after management actions. This approach of a single calculation run not only delivers operational efficiency but provides an integrated and consistent view for the CRO, CFO, CEO and Board.

OTHER RELEVANT SOLUTIONS:

OneSumX for Regulatory Reporting

OneSumX for Regulatory Reporting has been recognized in the industry as a leading solution over the years, receiving top places in Chartis Research Risk Tech 100 rankings for regulatory reporting, and awards from Banking Technology, Finance Monthly and Wealth & Finance International, among others.

OneSumX for Risk Management

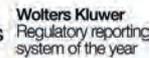
As a contract centric integrated financial risk management solution, OneSumX for Risk Management generates expected and unexpected cash flows based on anticipated events over the lifetime of the contract. These events reflect the outlook for the macro economy, market risk factors, the strategy of the firm and the expected behavior of its counterparties.

OneSumX for Business Analytics

OneSumX for Business Analytics provides a quick yet powerful way to leverage the data and results held in the OneSumX platform and other external data sources, to reap the benefit of the effort that went into generating that information, thereby improving ROI on existing infrastructure, complying with the supervisory demands for use of such data in decision-making and delivering the ability for all levels of the financial organization to operate in a more agile, responsive, and forward-looking way.







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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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