Standardized Approach For CounterParty Credit Risk (SA-CCR)

– The Basel Journey Continues

As a response to COVID-19, the Basel Committee on Banking Supervision (BCBS) has pushed out timelines for the extensive updates planned for Basel III – often referred to as "Basel IV".

However, the regulation changes are still coming into effect over the next three years despite reprieves. With Basel IV, BCBS has outlined the standardized approach for counterparty credit risk (SA-CCR) with the intention of replacing the previously existing approaches, including the current exposure method (CEM) and the standardized method (SM). The new SA-CCR approach will be mandatory for all over-the-counter derivatives, exchange-traded derivatives, and long settlement transactions. Financial institutions around the world will be required to use the new methodology to calculate their CCR exposures and corresponding capital reserves, leaving them with an altered capital profile.

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SA-CCR Complications

To comply with new requirements, institutions will need to incorporate a variety of complex calculations – including new add-on potential future exposure (PFE) and replacement cost (RC) calculations – that are necessary to compute exposure at default (EAD). Not only are calculations under the Basel IV SA-CCR approach more complex, requiring more data attributes, they are also more interdependent with other parts of the capital framework – including large exposure (LE) calculations.

A recent Basel monitoring report found that under the new SA-CCR rules, global systemically important banks (G-SIBs) may see their CCR charges increase 27.2% versus current levels (per BCBS, April 2020). They will also need the ability to run the calculations on a regular basis – even as often as daily – to ensure they do not exceed the capital limits set by regulators. Although G-SIBs will be most affected, all financial institutions will need to implement the new calculations and run impact analysis exercises as soon as possible to understand how the SA-CCR approach will affect them.

A Regulation With Global Implications

Adopting the new SA-CCR approach is taking different paths globally, including differences in calculation and adoption timelines by jurisdiction. In Europe, for example, smaller institutions may adopt one of two methodologies: Simplified Approach (SA) and Original Exposure Method (OEM). In Asia-Pacific, Australia and Singapore have already fully implemented SA-CCR, but there have been developments. On May 29, 2020, the Hong Kong Monetary Authority (HKMA) mandated all Hong Kong domiciled banks to adopt SA-CCR by June 30, 2021.

Critical Decisions On The Basel Journey

Financial institutions are facing critical decisions about data governance, risk management, calculation changes, and efficiencies as they address Basel IV requirements and its implications around the globe.

Regardless of where they are located and into what category they fall, institutions required to comply with Basel SA-CCR will still have to implement new calculations and report more frequently than before. Completing complex calculations and assessing interdependencies across their capital structures will become a cumbersome process if financial institutions are not prepared.

Therefore, financial institutions are exploring their SA-CCR preparedness:

- **As both Basel IV and jurisdictional regulatory requirements change, are we able to quickly adapt?**
- **How do we ensure consistency between standardized approach for SA-CCR and FRTB, including asset class allocations?**
- **Can we do impact analysis, including parallel running of calculations with the new regulations, in order to better inform business decision making?**

Key Features

- Accomodates BCBS 239 compliant rules and automatic, ongoing monitoring of rule changes and updates
- Integrates data from disparate sources and formats to optimize processes and automate calculations
- Provides multi-level sign-off with alerts and pre-submission report review for confident compliance
- Enables extensive data validation and report edit checks for increased accuracy
- Delivers a controlled, permissioned environment
- Allows for comparison of different dates, methodology/logic and data sets

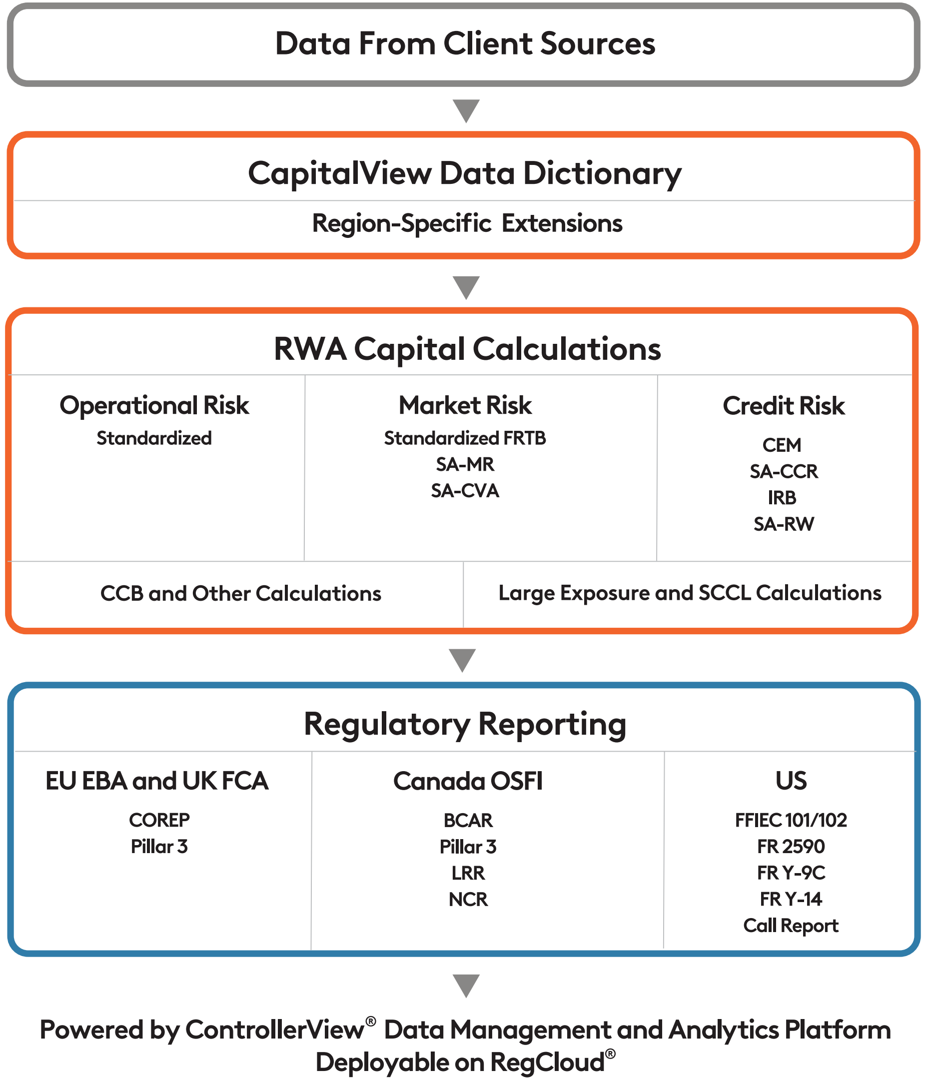
AxiomSL's SA-CCR Solution And Capital Calculations And Reporting

AxiomSL delivers a transparent and trusted solution for financial institutions to address the challenges of Basel IV and other frameworks including Capital Requirements Regulation 2 (CRR2), Canada's Office of the Superintendent of Financial Institutions' Basel Capital Adequacy Reporting (OSFI's BCAR), the Australian Prudential Regulation Authority (APRA), and the Japanese Financial Services Agency.

As illustrated, AxiomSL's solution can address all necessary SA-CCR calculations on its single data integrity and control platform. The solution is part of the platform's comprehensive set of capital calculations. It is integrated with the capital risk calculator, but can also be used as a standalone module with separate inputs.

The SA-CCR solution includes the following:

- RC
- Add-on calculations for all asset classes
- Exposure at default (EAD)
- Apportionment of EAD to trade level (PFE)
- Additional attributes required for SA-CCR



Data-Driven Solution Aligned With ISDA 'Golden Source' Calculations

Given that varied interpretations of the Basel-driven SA-CCR methodology can lead to variance in calculation results across the industry, it is important to ensure that calculations are in line with regulatory expectations. To address this, the International Swaps and Derivatives Association (ISDA) is working with stakeholders to promote the global harmonization of the calculations required by regulatory authorities. The initial benchmarking program commenced in 2018 and runs through to July 2021. This will unify expected results, eliminate the possibility of interpretation of the methodology, and create 'golden source' calculations designed to ensure the credibility of firms' standardized calculations for SA-CCR, FRTB and credit valuation adjustment (CVA).

AxiomSL is among the first vendors to comply with the rigorous calculations as per the ISDA 'golden source' benchmarks, thereby providing out-of-the-box collaborative industry credibility as well as the required robustness for regulatory scrutiny. In contrast, the results from vendors whose calculations are not aligned with golden-source calculations may be quite different, and those differences may be extremely difficult to reconcile.

AxiomSL's unique and flexible data dictionary architecture enables transaction-level data natively ingested into the SA-CCR solution to be properly classified for Basel compliance. The data dictionaries, including CapitalView for capital calculations, form the backbone of a BCBS 239 compliant architecture, ensure compliance with the Basel framework, and are extensible to accommodate local regulatory requirements across global jurisdictions. The CapitalView data dictionary architecture ensures consistency of data and logic across the complete AxiomSL capital solution, meaning that clients can expect comprehensive reporting capabilities and monitoring of regulation changes across capital requirements. In addition, fully auditable adjustment functionality across all stages of the dataflow, from source to submission, enables complete drilldown and dynamic data lineage to support audit defense and reduce operational risk.

Key Benefits

- Powered by AxiomSL's extensible CapitalView data dictionary architecture that ensures consistency across Basel capital calculations and supports auditability
- Delivers mandatory calculations, including new add-on, Pfe, and RC calculations for confident regulatory compliance
- Supports full impact analysis, including parallel running of calculations
- Processes large data volumes leveraging big data technology, without compromising transparency and drilldown
- Deployable on secure RegCloud®, enabling operational efficiencies

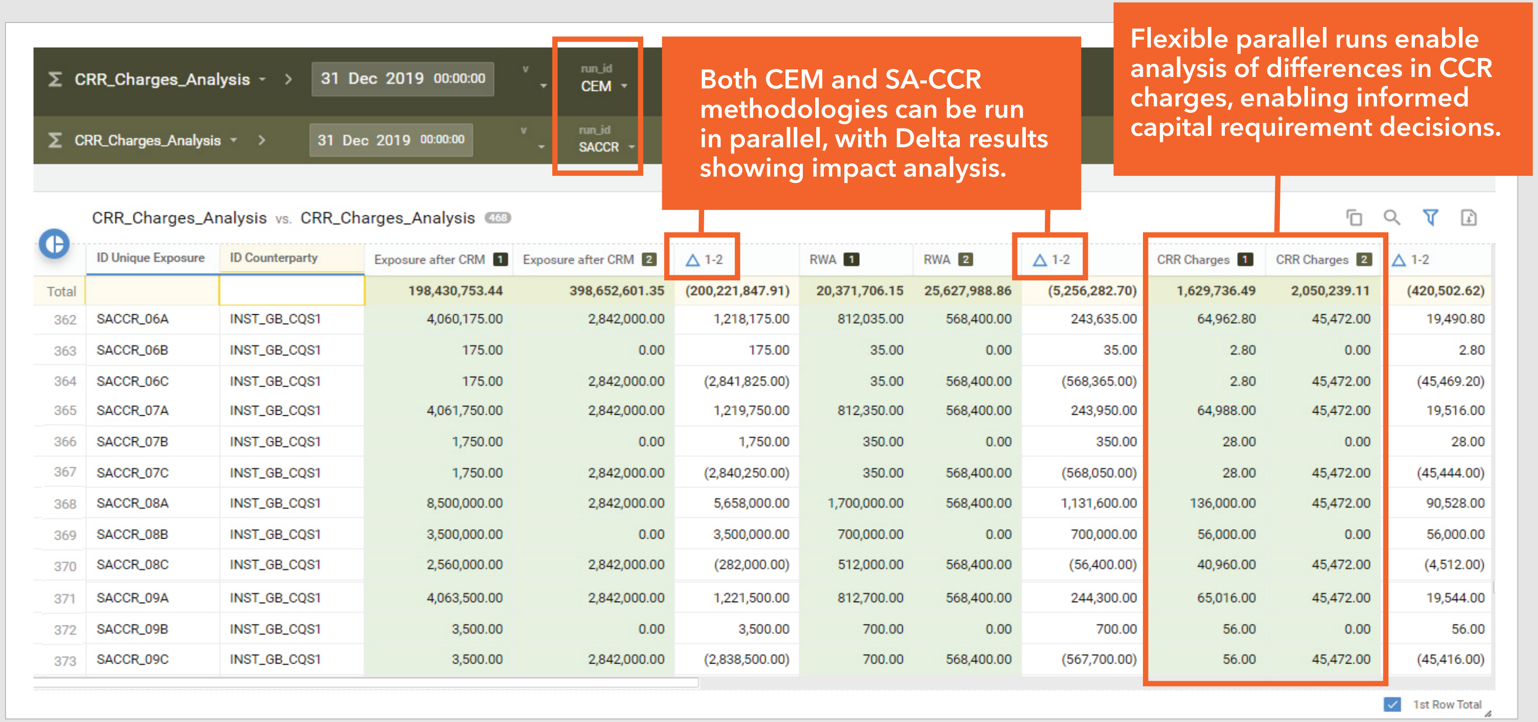
AxiomSL's Basel-Driven Capital Ecosystem Enables Parallel Calculations To Inform Capital Requirement

The solution can run CEM and SA-CCR EADs in parallel and streamline them into risk-weighted assets (RWA), CVA and calculations for large exposure (LE) or single counterparty credit limits (SCCL) in the U.S., as illustrated by the platform screenshots below. Furthermore, AxiomSL's innovation center delivers ongoing enrichment to AxiomSL's solutions through technology enhancements. By leveraging big data technologies such as Spark, Hadoop, and Redshift, AxiomSL delivers high performance, transparent capital and liquidity solutions, which are deployable on secure RegCloud for optimal scalability.

The Basel Journey Continues With Confidence

AxiomSL's SA-CCR solution, running on ControllerView®, delivers the processes, ISDA aligned golden-source calculations, and controls that empower financial institutions to improve risk management and data governance and strengthen transparency and disclosures. AxiomSL's solution for SA-CCR calculations provides seamless functionality and prompts adoption of relevant updates for new calculations needed to compute EAD.

Underpinned by AxiomSL's extensible, flexible CapitalView data dictionary, the solution automates the computation of EAD using the new SA-CCR methodology. It also provides the new PFE calculations (including add-on calculations for different asset classes) and the new RC calculations mandated for both margined and unmargined trades. Furthermore, AxiomSL's dictionary architecture and methodologies ensure the required consistency across Basel framework calculations, including FRTB and associated liquidity requirements.



	ID Unique Exposure	ID Counterparty	Exposure after CRM 1	Exposure after CRM 2	△ 1-2	RWA 1	RWA 2	△ 1-2	CRR Charges 1	CRR Charges 2	△ 1-2
Total			198,430,753.44	398,652,601.35	(200,221,847.91)	20,371,706.15	25,627,988.86	(5,256,282.70)	1,629,736.49	2,050,239.11	(420,502.62)
362	SACCR_06A	INST_GB_CQS1	4,060,175.00	2,842,000.00	1,218,175.00	812,035.00	568,400.00	243,635.00	64,962.80	45,472.00	19,490.80
363	SACCR_06B	INST_GB_CQS1	175.00	0.00	175.00	35.00	0.00	35.00	2.80	0.00	2.80
364	SACCR_06C	INST_GB_CQS1	175.00	2,842,000.00	(2,841,825.00)	35.00	568,400.00	(568,365.00)	2.80	45,472.00	(45,469.20)
365	SACCR_07A	INST_GB_CQS1	4,061,750.00	2,842,000.00	1,219,750.00	812,350.00	568,400.00	243,950.00	64,988.00	45,472.00	19,516.00
366	SACCR_07B	INST_GB_CQS1	1,750.00	0.00	1,750.00	350.00	0.00	350.00	28.00	0.00	28.00
367	SACCR_07C	INST_GB_CQS1	1,750.00	2,842,000.00	(2,840,250.00)	350.00	568,400.00	(568,050.00)	28.00	45,472.00	(45,444.00)
368	SACCR_08A	INST_GB_CQS1	8,500,000.00	2,842,000.00	5,658,000.00	1,700,000.00	568,400.00	1,131,600.00	136,000.00	45,472.00	90,528.00
369	SACCR_08B	INST_GB_CQS1	3,500,000.00	0.00	3,500,000.00	700,000.00	0.00	700,000.00	56,000.00	0.00	56,000.00
370	SACCR_08C	INST_GB_CQS1	2,560,000.00	2,842,000.00	(282,000.00)	512,000.00	568,400.00	(56,400.00)	40,960.00	45,472.00	(4,512.00)
371	SACCR_09A	INST_GB_CQS1	4,063,500.00	2,842,000.00	1,221,500.00	812,700.00	568,400.00	244,300.00	65,016.00	45,472.00	19,544.00
372	SACCR_09B	INST_GB_CQS1	3,500.00	0.00	3,500.00	700.00	0.00	700.00	56.00	0.00	56.00
373	SACCR_09C	INST_GB_CQS1	3,500.00	2,842,000.00	(2,838,500.00)	700.00	568,400.00	(567,700.00)	56.00	45,472.00	(45,416.00)

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