ActiveViam

White Paper

Atoti CVA Risk Capital

- Ease the Regulatory Burden
- Access Capital Control at Your Fingertips

Introduction

Daily monitoring of mark-to-market prices and a counterparty's creditworthiness requires the ability to oversee and calculate thousands of fast-moving data points. The credit valuation adjustment risk capital charge was created to provide a buffer against the variability of risky asset prices exemplified in the OTC derivatives market during the financial crisis.Banks are required to manage exposures and hold enough capital to cover potential losses inthe event of a sudden change in the price of a derivative or securities financing transaction due to credit quality degradation.

The regulation is based on final updates to BCBS 424, which outlined a more nuanced approach to hedging credit spread risk – largely referred to in the industry as "Basel IV". Regulations aside, a risk manager needs a set of tools at hand to track daily market value oscillations and protect from a capital loss. Imprecise calculations have the potential to unduly strain a balance sheet if not properly managed.

Accelerate your risk capital management

Atoti CVA Risk Capital eases the monumental task of measuring those risks and automates calculations to optimize the capital charge, thereby freeing up funds to deploy elsewhere. The software is an add-on to ActiveViam's flagship Atoti platform which has the ability to continuously aggregate very large datasets and calculate risk capital charges 'on the fly' across hundreds of dimensions. Atoti CVA Risk Capital is delivered with a fully functional reference implementation (including dashboards that show results of each of the regulatory calculations). Since one size may not fit all, Atoti provides the source code that contains pre-canned formulas necessary to perform complex calculations to meet the required regulations with the ability to be extendible and customizable. Users can view the results on dozens of configurable dashboards.

BA vs SA in CVA

Atoti CVA Risk Capital supports calculations for the "reduced" Basic Approach (BA-CVA) and then provides both regulatory options for calculating CVA risk capital: the "full" BA-CVA and Standardized Approach (SA-CVA) – whose use is subject to approval by a bank supervisor. Atoti CVA Risk Capital is built on top of a client's existing risk engines and utilizes the results from risk calculations and trade data. Computations on transactions are performed at the netting set level, except for hedges which occur at the trade level.
For the BA-CVA, Atoti CVA Risk Capital

processes all the bank's relevant data exposure-at-default, hedge notionals and maturities), trades and netting sets, assigns the appropriate multipliers, computes and exposes interim results and the total capital charge.

For the SA-CVA, Atoti CVA Risk Capital loads, processes and interpolates risk sensitivities (e.g. delta and vega) then prescribes risk factor buckets for more granular tenors that fall outside the regulatory scope.
It then computes and aggregates the capital charges. Netting sets can be organized and aggregated by geography, legal entity or any other classifications, depending on how the data is organized in the risk engine and fed into Atoti CVA Risk Capital.

Atoti CVA Risk Capital matches single name hedges to specific counterparties and treats index hedges separately.
If sensitivities for tenors are outside the regulatory scope, Atoti CVA Risk Capital contains rules to allocate them.

Set limits, perform calculations on demand

Regulatory CVA reports are required to be completed monthly but banks using SA CVA must be able to produce the calculations on demand to their supervisors, which necessitates a solution such as Atoti CVA Risk Capital that can easily handle ad-hoc requests. For both the SA and BA, Atoti allows a user to set limits and create alerts that signal risk managers when they are nearing or breaching a particular threshold.

Perform what-if scenarios and sign-off on data

Atoti CVA Risk Capital also provides What-If capabilities that allow a user to test different scenarios. For example, it permits the ability to carve out netting sets and switch the capital treatment between the BA and SA and test the effects on the capital charge.
Embedded in Atoti CVA Risk Capital is Atoti Sign-Off that allows a designated user to, for example, flag an anomalous movement within a dataset, (e.g. in PnL from one day to the next), make an adjustment, and send through a series of predefined channels for validation. Once the final approval has been signed off, the data can then be archived.

Other distinctive accelerator features include:

Ease of Data Aggregation: Scales to Tier 1 bank volumes and aggregates unlimited number of netting sets

Flexible: Users can enter specific queries and the data is aggregated and calculated on-the-fly cutting out long wait times

Full Transparency of data: Users can immediately view all steps of the calculations down to the netting set and see the results

Timely: Instantaneously update metrics and calculate the impact on risk capital

Cost Effective: Software sits on top of existing risk engines, no need for a costly and time-consuming build out or model validation exercise

Ease of Integration: Seamlessly meshes with existing architecture the calculations down to the netting set and see the results

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About ActiveViam

Founded by a group of industry experts, ActiveViam understands the data analytics challenges faced by financial institutions across trading desks, risk, and compliance. That is why we pioneered the use of high-performance analytics in finance, helping the largest investment banks, asset managers and hedge funds make better decisions, explain results with confidence, and simulate the impact of their decisions. We are not generalists.

Our mission is to deliver train-of-thought analysis on terabytes of data in the most cost-effective way so our customers can explain their results with confidence and model the scenarios that will optimize their business. We are a pure player specializing in risk data analytics for one of the fastest-moving and most regulated industries with a presence in the world's leading financial market places – London, New York, Singapore, Sydney, Hong Kong, Paris and Frankfurt.

At ActiveViam, we take pride in being experts in developing and supporting a purpose-built analytics technology that has been recognized as "FRTB Product of the Year" by Risk and by Waters Technology as the "Best Sell-Side Credit Risk Product."
For more information please visit:
www.activeviam.com