MARKET COMMENTARY

The 10 Greatest Challenges and Pitfalls when Designing and Implementing SA-CCR

With BCBS 279, the Basel Committee on Banking Supervision has published “The standardized approach for measuring counterparty credit risk exposures” (SA-CCR), the final standard for the calculation of counterparty credit risk of derivatives portfolios.

This is anticipated to replace both the Current Exposure Method (CEM) and the less common Standard Method (SM) by the end of 2018. The models based on the Internal Model Method (IMM) will remain unaffected.

Financial institutions that will be using this new standardized approach from 2018 await a significant effort to determine the exposure to counterparty credit risk in the context of OTC, exchange-traded, centrally cleared derivatives and long settlement transactions. They will need to report the regulatory determined derivatives exposure and with it their regulatory capital adequacy.

The implementation of the new methodology will require a considerable effort on the part of affected banks. The changes could also affect the pricing of derivatives and internal controls.

1. Complex Add-On Calculations
The determination of the add-ons for each netting set will not be calculated simply by adding on amounts per trade. Each asset class will have a different classification for trades in hedging and hedging sub-sets.

In addition, new parameters, such as the delta for options, long/short orientation, duration and maturity factors, are necessary to calculate the nominal amount that determines a trade. In each netting set, and in the respective asset class then follows the upward aggregation of trades.

The calculation logic is generally inspired by the IMM and offers diverse possibilities for offsetting, or hedging, of derivatives as compared to the static net gross ratio in the old market method.

Conclusion: Top-down and bottom-up approaches and long/short derivation will add to the complexity in the standardized approach (SA).
2. Increased Importance of Netting and Margining
Netting is the condition for the settlement of trades within hedging sets and is therefore even more important for the new approach. Margining reduces the assumed risk horizon of trades significantly and can thus compensate for other adverse factors.

**Conclusion:** Expansion or optimization of regulatory netting and margining can prove beneficial.

3. Collateralization Elements to the Fore
Existing components of the derivatives collateral, such as the minimum transfer amount or the threshold, are included in the replacement costs. In order to determine the risk horizon of a trade, other components now need to be added that have previously only been used in the internal model. These include the re-margining period, the existence of disputes or testing for illiquidity.

**Conclusion:** Collateral management needs to be integrated and coordinated as part of SA-CCR.

4. Issues with EMIR
Through the implementation of EMIR guidelines, additional requirements will need to be added to collateral management. So, an initial margin will most likely also be exchanged bilaterally. The number of collateral agreements can thus triple.

The solvency guarantee of the collateral is required—therefore, cash collateral is at least questionable to be used for initial margins.

**Conclusion:** Continuous exchange with EMIR experts is necessary.

5. More Technical Implementation Needed
For banks using the standardized approach, SA-CCR already demands a more complex exposure calculation. Therefore, a calculation tool is needed that allows the sorting of derivatives by aggregation from top-down and bottom-up, and of allocation within the different netting sets.

**Conclusion:** An early software decision needs to be made to map the SA-CCR calculation logic.

6. Connecting New Data Fields
The market data needed to calculate the derivatives, together with the necessary information for collateral management require a connection of new data fields. For example, they will be needed to determine the price of the option delta.

**Conclusion:** Delivery lines for the connection of collateral and market data are to be defined.

7. Watch Out for Duration
The regulator has introduced the concept of duration for interest rate and credit derivatives in accordance with the internal model. Individual trades without netting sets, which do not incorporate any offsetting, can therefore turn out to be more expensive than their nominal amount.

This can then lead to higher add-on amounts and ultimately increases the overall exposure.

**Conclusion:** Early integration of SA-CCR in pricing of derivatives is useful.
8. Be Prepared for Quick Changes
The calculation of the option delta is currently set by using a uniform Black-Scholes formula as required by the regulator. This model has its limitations for use with negative interest rates and exotic derivatives. In addition, the function of the multiplier, which is able to reduce the add-on with negative fair values and over-collateralization, remains still unclear. The regulator has only had insight into a few databases regarding SA-CCR. Therefore, the overall calibration as well as individual blocks in the methodology do not yet appear to have been finalized.

Conclusion: Choices have to be analyzed further; last-minute changes are still possible.

9. Necessary Detailed Portfolio Analysis
Basis and volatility transactions must be identifiable, as these build their own hedging sets. For complex derivatives, the challenge lies in the determination of nominal amounts and primary risk drivers. The determination of the risk driver may require further sensitivity analysis. Multi-asset derivatives must be split according to their shares within the respective asset classes. As part of this special treatment, a common methodology has to be utilized.

Conclusion: A subset of the derivative portfolio requires special treatment.

10. Impacts on Other Regulations
The counterparty credit risk from derivatives is taken into account in addition to the capital requirement in the leverage ratio and affects it accordingly. In addition, large exposures also form the basis of assessment of the derivatives business. Credit Value Adjustment (CVA) charge and expected loss are affected accordingly by knock-on effects from the exposure determination.

Conclusion: In addition to the credit risk, other regulations need to be considered in the final implementation.
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About Finbridge
Finbridge is a consulting firm that specializes in financial services. It is based near Frankfurt, Germany.

Finbridge supports banks and other financial institutions in the creation and successful implementation of their changing processes along the entire value chain. Specialized know-how and many years of project experience demonstrate Finbridge’s expertise in regulatory reporting and risk control.

Highly qualified and engaged employees offer a very high standard of support. Finbridge’s regulatory advisors focus on business conception, technical specification, and testing of new regulatory topics within the context of EU implementation of the Basel Accords. These include SA-CCR, FRTB, AnaCredit, SA-CR, IRRBB and Market Disclosure, among others.

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About Finastra
Finastra's SA-CCR component is a real-time solution developed to help banks achieve a consistent and compliant risk policy for derivative counterparty exposures. This is accomplished by allowing a bank to apply the same risk methodology across capital reporting and internal risk limits management. The solution holds all the supervisory data required by the regulation, mapping trade information and capturing all asset classes and the correct netting sets.

The Finastra solution is built on SA-CCR (BCBS 279) specifications and can run limits in parallel with old and new exposure methods for a smooth transition to the new regulations.

It has been built to allow an easy and quick implementation process. Risk managers can analyze and drill down to different levels of exposure and limits via an easy-to-use and flexible dashboard.

The SA-CCR Exposure at Default (EaD) computations are available for all further accounting and regulatory computations, such as Risk Weighted Assets (RWA), IFRS 13 and CVA, among others. Based on the full transparency of the calculation methodologies and its flexibility to adapt to local regulations, banks will be in control at all times and can centrally modify core regulatory parameters, should the need arise.

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