

Revisions to the Standardized Approach for Counterparty Credit Risk

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Reply Annual Risk & Regulatory Symposium
London, 23rd November 2016

- Overview
- CEM vs. SA-CCR - Impact on Capital
- SA-CCR implementation challenges
- Key SA-CCR areas of improvement
- Potential revisions in the SA-CCR transposition

SA-CCR - Overview

On 31st March 2014, the BCBS published a final paper mandating a new standardized, non-internal models calculation of counterparty exposure at default. The new rules are expected to be implemented by the 1st of January 2017.

- ▶ Designed to improve the **risk sensitivity** measure without creating undue complexity. 'Simple & Easy' to implement
- ▶ Replacement of both the Current Exposure Method (CEM) and the Standardised Method (SM) in the CCR framework.
- ▶ Increase in requirement for data and granular drill-downs across business lines.
- ▶ Addresses long-standing criticisms of the CEM and SM approaches by introducing a more risk-sensitive measure of counterparty exposure. Address deficiencies e.g. margining and minimise discretion of national authorities
- ▶ Key improvements:
 - ▶ **SA-CCR is calibrated to a period of stress**
 - ▶ **Recognition of collateral benefit including margining under central clearing**
 - ▶ **More reflective of legal and economic offsetting.**
- ▶ Vast majority of banks globally which are currently using CEM will be impacted.
- ▶ Possible incentive for banks to seek IMM approval

Overview of CEM / SM and SA-CCR

Current Exposure Method

$$EAD = RC + PFE$$

- RC (replacement cost) is the current market value with offsetting of collaterals
- Calculate PFE (potential future exposure) at trade level
 - $AddOn = Notional \times Supervisory \text{ Factor}$
- Recognise hedging at netting set level by net gross ratio:
 - $PFE = \sum AddOn_{Trade} (0.4 + 0.6 \times NGR)$
- Drawbacks:
 - No differentiation margined / unmargined trade
 - Supervisory Factor not suited for stress period
 - NGR too simplistic for hedging / netting

Standardised Method (SM)

- Has not become popular. Drawbacks:
 - No differentiation margined / unmargined trade
 - Too complex, uses IMM concepts to some extent

SA-CCR

$$EAD = \alpha (RC + PFE)$$

- Factor $\alpha = 1.4$ (like in IMM)
- RC considers collaterals and margining
- EAD for margined netting sets is capped at the EAD on an unmargined basis
- Within each of five asset classes, calculate PFE as $Notional \times Delta \times Maturity \text{ Factor} \times Supervisory \text{ Fact.}$ on trade level and aggregate across hedging sets
- PFE is further reduced in case of over-collateralization (IM and negative MTM)
- Key objectives:
 - Addresses deficiencies of CEM and SM (e.g. margining)
 - “Simple and easy” to implement?
 - Aims to be more risk-sensitive than CEM / SM
 - Minimises discretion of national authorities

Internal Model Method (IMM)

Remains valid (IMM may however become subject to a floor based on 60%-90% of SA-CCR, consultation is currently progressed).

PFE Add-ons- Weighting Factors

ASSET CLASS	DIMENSION (SUB-CLASS)	SA-CCR ADD-ON
INTEREST RATE		0.5%*
FX		4.0%
CREDIT (SINGLE NAME)	Master Rating AAA-AA	0.38%*
	Master Rating A	0.42%*
	Master Rating BBB	0.54%*
	Master Rating BB	1.06%*
	Master Rating B	1.6%*
	Master Rating CCC (or missing)	6.0%*
CREDIT INDEX	Investment Grade (IG)	0.38%*
	Sub-Investment Grade (SG)	1.06%*
EQUITY (SINGLE NAME)		32%
EQUITY INDEX		20%
COMMODITY	Type: Electricity	40%
	Type: all others	18%

CEM ≤1Y	CEM >1Y – 5Y	CEM > 5Y
0%	0.5%	1.5%
1%	5%	7.5%
5%	5%	5%
5%	5%	5%
10%	10%	10%
10%	10%	10%
10%	10%	10%
5%	5%	5%
10%	10%	10%
6%	8%	10%
6%	8%	10%
10%	12%	15%
10%	12%	15%

- IR & CR factors are multiplied by duration of underlying risk factor
- SA-CCR add-ons weighted by sqrt of maturity if less than 1 year, or sqrt of MPOR for margined trades

Example: 5 year IRS Resulting % of notional

CEM 0.5%

SA-CCR unmargined 0.5% x 1.4 Alpha x 1 Maturity factor x 4.4 supervisory duration = 3.1%

SA-CCR margined 0.5% x 1.4 Alpha x 0.3 Maturity factor x 4.4 supervisory duration = 0.9%

- SA-CCR > CEM i.e. capital increases for:
 - Most non-margined portfolios (e.g. with corporate hedgers)
 - Non-diversified / directional portfolios
 - Some 'diversified' portfolios (where trades span different hedging sets)
 - Equity derivatives, short term FX
- SA-CCR < CEM i.e. capital decreases for:
 - Diversified margined portfolios (e.g. with CCPs)
 - Perfectly offsetting trades (full offset within hedging sets)
- Still expect SA-CCR to be much more expensive than IMM
 - ~30-50% additional capital. Could be the difference between being competitive and uncompetitive in some markets, e.g. FX
 - Capital Floors could have impact, depending in calibration
- Perverse Effects
 - Basis Swaps structured as two offsetting IRSs: Zero capital
 - FX 'crosses', e.g. USD/AUD + GBP/USD instead of GBP/AUD ~ Double capital (no offsetting across currency pairs)
 - FX triangulation, e.g. USD/AUD + GBP/USD + AUD/GBP ~ EAD (~Capital) on each leg, even though position is 'flat'

SA-CCR: Implementation Challenges

- ▶ All banks will need SA-CCR, Leverage Ratio, Large Exposure and CCP Exposure, potential floor on IMM.
 - whole new system implementation, testing, etc.
- ▶ Additional data requirements: option delta, new hedging sets concept, duration, commodity type, margin info etc.
- ▶ System ownership: increased complexity and data requirements may be beyond Finance systems
- ▶ Additional supervisory burden (compared to CEM)
- ▶ Business impact needs to be assessed and monitored
- ▶ Rules difficult to interpret for many products e.g. bond derivatives IR or CR? May lead to inconsistent implementation
- ▶ Netting sub sets: Netting sets must be divided into sub-netting sets that align with margin agreements. Banks may need to re-document legacy trades or lose netting benefits

Key SA-CCR areas of improvement

- **Recognition of initial margin (IM) in SA-CCR's PFE calculation**
- The level of PFE reduction resulting from exchange of IM is not aligned with the level of risk mitigation provided by the IM, leaving PFE meaningfully higher than it should be.
- **Industry suggestion:** *The PFE multiplier should be revisited to better recognize IM exposure reduction.*
- **SA-CCR's 1.4x Alpha parameter is unnecessarily conservative**
- The outdated calibration of the 1.4x alpha factor conservatively accounts for correlations between exposures, wrong-way risk, and portfolio granularity. It unnecessarily overstates the exposure levels.
- **Industry suggestion:** *Alpha should be recalibrated to reflect the new capital markets environment.*
- **Recognition of diversification between IR hedging sets (one IR hedging set defined per currency)**
- SA-CCR currently offers no recognition of diversification benefits between different IR hedging sets, which significantly overstates the level of counterparty credit risk.
- **Industry suggestion:** *The add-on aggregation formulae should be revisited to include diversification benefits between IR hedging sets, in line with the market risk standardized approach.*
- **Appropriate recognition of offset and diversification between currency pairs**
- FX triangulations are penalized as no offset or diversification is permitted across different currency pairs. A single hedging set should be considered with a net position in each currency, rather than per currency pair.
- **Industry suggestion:** *Apply a correlation formula between single currencies as for credit and equity asset classes.*

Potential revisions in the SA-CCR transposition

- No alpha factor adjustment expected for now – remains 1.4x
- “Inflation” is expected to be assigned to “interest rate” hedging sets when in the same underlying currency
- Climate derivatives are expected to be assigned to “commodities” asset class
- Potential further technical standards determined for:
 - Definition of primary risk driver and identification of transactions with more than 1 risk driver
 - Definition of options delta for negative interest rates, as well as non-defined long or short instruments
 - Definition of large and concentrated commodity derivatives portfolio
- Potential introduction of a “*simplified SA-CCR*”, more conservative and rudimentary, aimed at smaller and less sophisticated institutions
- Issue of transposition timeline, as well as adoption by certain jurisdictions

Q&A