

SA-CCR Prototyping

one concept - many applications

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7th July 2015

Summary



- 1 Review of regulatory framework
 - SA-CCR relative papers
- 2 Fields of application
- 3 Impact analysis
- 4 Implementation Challenge
- 5 Conclusion

SA-CCR relative papers



BCBS279 - Apr2014 - The standardised approach for measuring counterparty credit risk - Deadline : 1 January 2017

- new assessment of the counterparty credit risk exposure associated to OTC derivatives, exchange-traded derivatives, and long-settlement transactions
- SA-CCR will replace the Current Exposure Method (CEM) and the Standardised Method (SM) and the IMM shortcut method in the Basel capital framework
- comprehensive, non-modelled approach to remediate the known limitations of the existing framework : insufficiently risk sensitive, not aligned with other prudential approaches, allowing bank's internal estimates, not incentivising central clearing of derivative transactions.

SA-CCR relative papers



BCBS282 - Apr2014 - Capital requirements for bank exposures to central counterparties - Deadline : 1 January 2017

- SA-CCR used to compute clearing member exposures to CCP (for bank without IMM approval) §192
- SA-CCR used to compute clearing member exposures to clients (for bank without IMM approval) §195
- Treatment of posted collateral in line with the new SA-CCR framework §201
- SA-CCR used to compute defund fund contributions of the CCP members §207

SA-CCR relative papers



BCBS270 - Jan2014 - Basel III Leverage ratio framework and disclosure requirements - Deadline : 1 January 2018 in Pillar 1

- aims limiting the build-up of excessive on- and off-balance sheet leverage in the banking system
- Leverage ratio is defined as the ratio between "Capital Measure" (Tier 1 capital) and "Exposure Measure"
- Derivatives creates two types of exposures : an exposure arising from the underlying of the derivative contract and a counterparty credit risk exposure.
- §18 Note 5 : *"This approach makes reference to the Current Exposure Method (CEM) which is used under the Basel II framewok to calculate CCR exposure amounts associated with derivatives exposures. The Committee is considering alternatives to CEM. If the alternative approach is adopted as a replacement of the CEM, the Committee will consider whether that alternative approach is appropriate in the context of the need to capture both types of exposure created by derivatives"*

SA-CCR relative papers



BCBS283 - Apr2014 - Supervisory framework for measuring and controlling large exposure - Deadline : 1 January 2019

- Need for banks to measure and limit the size of large exposures in relation to their capital
- Idiosyncratic risk due to large exposures to individual counterparties may be present in bank's portfolio
- The new framework acts as a backstop to risk-based capital requirements
- §33 : *"Trading book OTC derivatives (and any other instrument with counterparty credit risk) : The exposure value for instruments that give rise to counterparty credit risk and are not securities financing transaction must be the exposure at default according to the standardised approach for counterparty credit risk (SA-CCR)"*

SA-CCR relative papers



BCBS WP26 - Aug2014 - Foundations of the standardised approach for measuring counterparty credit risk

This document explains exhaustively following SA-CCR aspects :

- General structure : Replacement Costs + (RC) and Potential Future Exposure (PFE)
- General framework for add-ons (Netting, Margining)
- Structure of add-on calculations
- Add-on calculation for asset class
- Multiplier for Overcollateralisation
- Calibration to stressed market conditions

SA-CCR relative papers



EBA Translation

- BCBS279 : currently no EBA translation
- BCBS282 : EBA/RTS/2012/01
- BCBS270 : EBA/ITS/2014/04
- BCBS283 : EBA/OP/2015/01

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- 1 Review of regulatory framework
- 2 Fields of application
 - SA-CCR for regulatory purposes
 - SA-CCR for economic purposes
 - Application fields
 - Stakeholders of SA-CCR implementation
- 3 Impact analysis
- 4 Implementation Challenge
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SA-CCR for regulatory purpose



Even with ramp-up phase organised, the multitude of aspects, special cases and applications makes crucial a scoping phase and implementation plan to cop with this regulatory change of paradigm. First actors on the market will have a competitive advantage. Focus will be :

- brute-force implementation of SA-CCR for CCR capital requirements
- extension to bank exposures to CCP
- extension for leverage ratio computation
- extension (/simulation?) to run SA-CCR computation at future times (KVA computation)

SA-CCR for economic purposes



Implementation of the SA-CCR for regulatory reporting induces a replacement of the CEM as best market practice also for economic purposes for banks without IMM approval. This is impacting :

- Limit system on the basis Replacement Cost + PFE
- ICAAP
- balance-sheet relevant valuation adjustments along IFRS13 guidance (CVA, DVA)
- additional valuation adjustments for business steering (MVA, FVA)

Application fields

| | Regulatory | | | | Economic | | |
|---------|--|------------------------------|-----------------------|--------------------------------|--------------------|-------|-------|
| Actual | EAD _{CCR} EAD _{CVA} | EAD _{LeverageRatio} | EAD _{ExpCCP} | Large Exposure Notification | IFRS 13 XVA | Limit | ICAAP |
| Forward | KVA _{CCR} KVA _{CVA} | KVA _{LeverageRatio} | KVA _{CCP} | | | | |

We distinguish here between computation at time zero as regulatory asked for the time being, and forward computation mostly used by front-office to assess properly the profitability of trades

Stakeholders of SA-CCR implementation



Any department linked to the derivative within a bank has a stake in the SA-CCR implementation and in its implications :

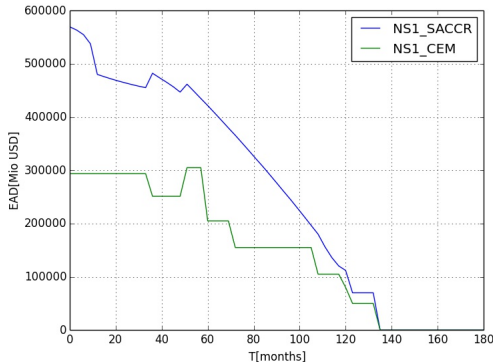
- Finance Department in charge of Regulatory Reporting
- Risk Department in charge of the calculation engine around SA-CCR and its derivatives
- Front Office in charge of the management of the risk associated to CCR
- Product Control in charge of XVA figures reporting and validation

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- 3 Impact analysis**
 - Transition from CEM to SA-CCR
 - Impact of Margining
 - Qualitative Assessment
- 4 Implementation Challenge
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Transition from CEM to SA-CCR

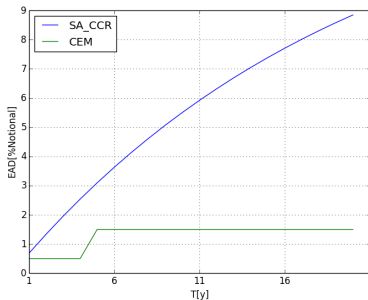


No obvious reduction of capital requirements with this model introduction (Example from BCBS279 - netted portfolio of IR swaps)

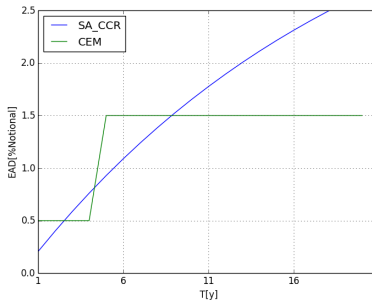
Impact of Margining



unmargined



marginied (MPOR=10d)



Here we present the CEM and SA-CCR for ATM swaps with different maturities and the impact of margining.

Margining allows a significant reduction in the case of SA-CCR but this reduction disappears for long maturities.

Qualitative Assessment



Rule of thumb - Impact on EAD after the transition CEM->SA-CCR

| | |
|---|---|
| Margining | ↓ |
| Collateral | ↘ |
| CR in general | ↘ |
| CR, EQ low rating | ↗ |
| IR, FX: heterogeneity in currency | ↗ |
| CO: heterogeneity in commodity types | ↗ |
| FX triangular portfolio e.g. EURUSD, USDGBP, GBPEUR | ↑ |

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Implementation Challenge



You will need more than Excel to compute it

- Compared to CEM, the data input required increases significantly (e.g. collateral, sub-class)
- Calculation algorithm is much more sophisticated, particularly if used on a forward basis
- Banks accustomed to achieving minimal compliance must review significantly their approach
- Implementation project will have significant intersection with clearing and bilateral margining projects

A silo approach is not worth !

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Every single bank hurt by SA-CCR

- SA-CCR replaces CEM, SM and IMM shortcut method.
- IMM banks probably need SA-CCR for specific asset classes
- SA-CCR required for Leverage Ratio and RWA for CCPs
- mixed impact analysis for small and medium banks
- level of complexity increases significantly
- SA-CCR implementation could force banks to collect IMM approval

Next actions for you

- Project could be more complicated as thought (ETL, forward view)
- Planning of the project to be aligned with CCP, IM-VM projects
- Additional complex reporting requirements (polymorphic tree)
- Need for generic and plugable aggregation engine as no EU translation

Our SA-CCR solution, your way to success

- Easy to use and scalable platform
- Allow clients to understand new requirements
- Analyses the regulatory and economic figures on a spot and lifetime basis
- **An early response can achieve both capital efficiency and competitive advantage. No "Wait and See"**