IMPACT OF THE NEW CVA RISK CAPITAL CHARGE

Including final targeted revisions from July 2020

analytical. quantitative. tech.

August 2019 / February 2021

Content

1. Introduction Page **3**

2. Sample Calculations Page **4**

3. Calculation Results Page **6**

4. Conclusion Page **9**

1. Introduction

In July 2020, the Basel Committee on Banking Supervision (BCBS) has published the final targeted revisions to the calculation of the new CVA risk capital charge (BCBS 507, see [10]), with implementation date January 2023. The motivation for the new framework (BCBS 424, see [7]) is to

- ensure that all important drivers of CVA risk, including CVA hedges, are covered in the Basel regulatory capital standard
- align the capital standard with the fair value measurement of CVA applied under various accounting regimes
- ensure consistency with the proposed revisions to the market risk framework under the Basel Committee's Fundamental Review of the Trading Book (BCBS 352 and 457, see [8])

This paper highlights the key differences between current and future calculation approaches for regulatory CVA risk capital charges. The Basel Committee proposes two new CVA risk capital frameworks[1], to acknowledge banks' different capabilities regarding the computation of CVA sensitivities:

- **the basic approach (BA-CVA)**, based on a formula similar to the current standardized method
- **the standardized approach (SA-CVA)**, which is based on CVA sensitivities

Comparing BCBS 507 with BCBS 424, the main revisions are a multiplicative factor of 0.65 for BA-CVA, a reduction of the SA-CVA multiplier from 1.25 to 1 as well as the reduction of several SA-CVA risk weights (in particular for interest rates, FX and volatilities). The committee also adjusted the scope by exempting certain SFTs and client cleared derivatives and introduced a new handling of credit and equity indices.

In section 2, we define different sample portfolios as well as a market data environment which we then use to calculate example CVA risk capital requirements for the different approaches. In section 3, we present and discuss our calculation results. We conclude by summarizing and by recommending courses of action.

Current Standardized Approach

The current standardized approach for the calculation of the CVA risk capital charge has been implemented as part of the Capital Requirements Regulation (CRR, see [13], article 384); the corresponding formula for an unhedged portfolio is:

$$K_{CVA} = 2.33\sqrt{h}\sqrt{\left(\sum_i 0.5 \cdot w_i \cdot M_i \cdot \mathrm{EAD}_i\right)^2 + \sum_i 0.75 \cdot w_i^2 \cdot \left(M_i \cdot \mathrm{EAD}_i\right)^2}$$

where:

- h is the risk horizon, i.e. 1 year
- i is the considered counterparty
- w_i is the counterparty risk weight based on rating class (1 to 6)
- M_i is the effective maturity of the set of transactions with counterparty i
- EAD_i is the regulatory exposure for counterparty i, determined according to one of the regulatory methods (such as e.g. the Current Exposure Method)

Future Basic Approach

Banks must use the BA-CVA, which closely relates to the current standardized method, unless they receive approval from their relevant supervisory authority to use the SA-CVA. Improvements to the current standardized approach include a better recognition of eligible credit risk hedges. Exposure hedges will remain excluded from capital charge calculations in the BA-CVA. The formula for the basic approach in its reduced form (without CDS or CDS index hedges) is (see [7]):

$$\mathrm{DS}_{\text{BA-CVA}} \cdot K_{\text{reduced}} = \mathrm{DS}_{\text{BA-CVA}} \cdot \sqrt{\left(\rho \cdot \sum_c SCVA_c\right)^2 + \left(1 - \rho^2\right) \cdot \sum_c SCVA_c^2}$$

where:

- $\rho = 0.5$
- c is the considered counterparty
- $SCVA_c$ is the CVA capital requirement that counterparty c would receive if considered on a stand alone basis, calculated as: $SCVA_c = \frac{\mathrm{RW}_c}{\alpha} \cdot \sum_{NS \in c} M_{NS} \cdot \mathrm{EAD}_{NS} \cdot \mathrm{DF}_{NS}$
- RW_c is the counterparty risk weight based on credit quality (grade) and sector (similar to SA-CVA)
- α is the so-called conversion factor which is defined for CCR capital in the IMM and in the SA-CCR; it is currently set to 1.4

1 The internal model approach IMA-CVA, which was discussed in a consultative document (BCBS 325, see [4]) and in the CVA QIS (see [5]), has been eliminated later on; the elimination was announced in a consultation paper regarding credit risk RWA (BCBS 362, see [6]) and confirmed in BCBS 424 (see [7]). A further approach may be followed by banks with less than 100 billion EUR notional in uncleared bilateral derivatives. These may choose to set the CVA risk capital equal to their capital requirement for counterparty credit risk (BCBS 424, see [7]).

- M_{NS} is the effective maturity of the netting set NS
- EAD_{NS} is the regulatory exposure at default of the netting set NS, determined according to the SA-CCR (see [2])
- DF_{NS} is the supervisory discount factor[2] of the netting set NS, which is a function of the effective maturity
- $DS_{BA\text{-}CVA}$ = 0.65 is the discount scalar introduced in [10]

Differences between the current standardized approach and the basic approach are further outlined in section 3, where the resulting quantitative impact is discussed.

Future Standardized Approach (SA-CVA)

The new standardized approach for CVA risk (SA-CVA) is based on CVA sensitivities, following the idea and principles of the standardized approach for market risk (SA-TB) defined as part of the FRTB (see [8]). In contrast to SA-TB, banks need supervisory approval to use SA-CVA and the following requirements must be fulfilled (see [7]):

1 The calculation of regulatory CVA and CVA sensitivities from predefined market risk factors must be based on the simulation of exposure paths (discounted with the risk-free interest rate).

2 Default probabilities must be market-implied and the credit spreads of illiquid counterparties must be approximated with a suitable method.

3 The bank must have a dedicated CVA desk or similar function responsible for risk management and hedging of CVA.

Banks qualifying for SA-CVA need to follow general principles to calculate regulatory CVA. The exposure scenarios must be calculated from the same models, calibration, market, and transaction data as used for accounting CVA (and/or front-office CVA). Model calibration must be carried out with respect to market-implied parameters wherever possible. The recognition of collateral requires the capturing of all relevant contractual features and a margin period of risk with a supervisory floor of at least 10 business days. The requirements on documentation, independent validation, and processes show similarities to those applicable to internal model banks (compare IMM-CCR).

Generally, CVA risk assumes that the bank itself is default risk-free. In particular, it disregards the debt valuation adjustment (DVA).

The formula for regulatory capital based on SA-CVA is:

$$K_{CVA} = m_{CVA} \cdot \sqrt{\sum_b K_b^2 + \sum_b \sum_{c\neq b} \gamma_{bc} \cdot S_b \cdot S_c}$$

The multiplier m_{CVA} has default value 1 (see [10]) but may be increased by the bank's supervisory authority, e.g. to capture wrong way risk, and the γ_{bc} are regulatory correlation parameters (see [7]). The so-called bucketed capital charges K_b are defined as:

$$K_b = \sqrt{\left(\sum_{k\in b} WS_k^2 + \sum_{k\in b}\sum_{l\in b, l\neq k} \rho_{kl} \cdot WS_k \cdot WS_l\right) + R \cdot \sum_{k\in b}\left(WS_k^{\mathrm{Hdg}}\right)^2}$$

These are based on weighted sensitivities WS_k as well as intra-bucket correlation parameter ρ_{kl}, and R is the hedging disallowance factor, set to 0.01, that prevents the possibility of perfect hedging of CVA risk.

Furthermore, S_b has been introduced in BCBS 507 (see [10]) as the sum of weighted sensitivities in bucket b, capped at K_b and floored at $-K_b$:

$$S_b = \max\left\{-K_b; \min\left(\sum_{k\in b} WS_k ; K_b\right)\right\}$$

Compared to previous formulations of SA-CVA, this allows for a better offsetting of weighted sensitivities with opposite signs.

2. Sample Calculations

To carry out sample calculations we define synthetic portfolios and consider actual market data[3] in order to obtain a realistic assessment of potential CVA risk capital charges. Our calculations of SA-CVA and BA-CVA capital charges are based on the risk weights that have been introduced in the latest BCBS paper (BCBS 507, see [10]).

Sample portfolios and market data

Our sample portfolios consist of interest rate swaps (EUR) and cross currency swaps (USD/EUR) and cover typical maturities and moneyness levels. They include the following spot starting trades:

A. Vanilla swap

- Currency: EUR
- Notional: 100m
- Maturities: 1y, 4y and 10y
- Pay: annual fixed rate, fixed AT PAR[4]
- Rec: bi-annual floating rate, fixed at Euribor 6M

2 For banks using the IMM to calculate EAD, the supervisory discount factor is set to 1.

3 This market data reflects a snapshot taken as of the end of October 2017.

4 We assume trades at par to have a market value slightly positive, ergo NGR is set to 1.

B. Cross currency swap

- Currency: EUR/USD
- Notional[5]: 100m EUR vs USD amount corresponding via spot FX
- Maturities: 1y, 4y and 10y
- Pay: bi-annual floating rate, fixed at Euribor 6M
- Rec: bi-annual floating rate, fixed at USDLibor 6M

C. Same swap legs as Trade A but with fixed rate = AT PAR · 1.2 and maturity 10y

D. Same swap legs as Trade A but with fixed rate = AT PAR · 0.8 and maturity 10y

All calculations are carried out using the regulatory formulas that apply in the non-hedged case. Both the uncollateralized and the collateralized case (with and without initial margin) are considered. The CSA is assumed to have a minimum transfer amount (MTA) of 500k EUR[6], a bilateral threshold of zero and a margin period of risk (MPOR) of 10 business days. Initial margin is assumed to cover the 99% confidence interval of the clean PnL over the MPOR, in line with BCBS 317[7] (see [3]).

For the sample calculations, we consider two different types of counterparties:

1 A financial counterparty with an investment grade rating. Interbank portfolios typically benefit from significant netting effects, and they are generally collateralized, with the collateral mitigating exposures at default.

2 A corporate counterparty with an investment grade rating. Portfolios with corporates are generally smaller, with no large netting effects and no collateral in place. We point out that the exemption of certain corporate counterparties with respect to CVA risk, which is currently valid under European regulation, is not recognized in this paper.

The following market data as of 30 October 2017 is used for the calculations:

- Interest rate (IR) curves for both currencies (discounting via EONIA and USD FEDFUNDS and projection of forward rates via Euribor and USDLibor)
- IR volatilities based on co-terminal ATM swaptions up to 30 years
- EUR/USD FX spot, FX basis curve, FX volatilities up to fifteen years
- A flat CDS spread of 40 bps[8] for both the financial and the corporate counterparty
- A generic recovery rate of 40% for PD and CVA computations
- Realistic correlations for IR and FX, based on a 4Y history of zero rates and FX spot rates

Simulation approach

For BA-CVA and SA-CVA, we implement a framework that complies with the standards and definitions laid out in the finalized BCBS framework (BCBS 424, see [7]) and with the final targeted revisions (BCBS 507, see [10]). For CVA sensitivity calculations, we use a hybrid Hull-White model with one driving Brownian motion per IR curve and one driving Brownian motion per FX rate. Exposures, variation margin and initial margin (IM) are simulated within the same Monte Carlo framework. The pathwise simulation of IM is based on the Nadaraya-Watson kernel regression method [1]. As required by BCBS 424, sensitivities are based on 1 bp tenor shifts for IR and credit spread delta and on relative 1% shifts for FX delta, as well as relative parallel 1% shifts for IR and FX volatilities for vega sensitivities. All calculated sensitivities are used as an input to our aggregation tool, which computes the CVA risk capital charges. An important additional input for the calculation of capital charges is given by each counterparty's risk weight. Our selection of investment grade financial and corporate[9] counterparties leads to the following counterparty risk weights for the current standardized approach and the future basic approach, and credit spread delta risk weights for the future standardized approach:

Approach	Financial	Corporate
Current Standardized Approach	1.0%	1.0%
BA-CVA	5.0%	3.0%
SA-CVA	5.0%	3.0%

Table1: Risk weights for the current and future approaches

5 The notionals of Trade B are assumed to be exchanged at the start and maturity of the swap.

6 According to BCBS 317 (see [3], 2.3), "all margin transfers between parties may be subject to a de-minimis minimum transfer amount not to exceed €500,000".

7 The threshold of the initial margin is set to zero (BCBS 317 [3] allows max. €50m) and it is assumed that Trade B is not subject to the FX notional exemption (which may be applied to cross currency swaps according to BCBS 317 [3]).

8 For reasons of generality and comparability, we use an artificial CDS spread instead of actual market data.

9 The corporate is assumed to belong to one of the following sectors: basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying, consumer goods and services, transportation and storage, administrative and support service activities.

3. Calculation Results

Current CVA risk capital charge

We first compute current CVA risk capital charges, using the methodology described in article 384 of the CRR (see [13]), ignoring the corporate exemption. We calculate EADs according to the Current Exposure Method (CEM) as described in article 274 of the CRR[10] and we recognize netting according to article 298 of the CRR. Since we assume the same credit quality "3" for both counterparties, we obtain identical risk weights of 1% and, thus, identical CVA risk charges.

Note that only Trade D has positive market value, resulting in a difference between collateralized and uncollateralized replacement costs.

10 In the CRR, the CEM is referred to as the Mark-to-Market method. IM is not mentioned in this method, hence we do not distinguish between collateralization with or without IM for the current CVA risk capital charge.

Trades	No CSA	CSA
Trade A 1y	11,364	11,364
Trade A 4y	42,236	42,236
Trade A 10y	275,035	275,035
A {1y,4y,10y} netted	257,697	257,697
Trade B 1y	113,635	113,635
Trade B 4y	422,357	422,357
Trade B 10y	1,375,175	1,375,175
B {1y,4y,10y} netted	1,803,880	1,803,880
Trade C 10y	110,014	110,014
Trade D 10y	584,132	366,713

Table 2: Calculation results for the CVA risk capital charge under the current standardized approach

	EAD CEM		EAD SA-CCR		
Trade	**No CSA**	**CSA**	**No CSA**	**CSA**	**CSA + IM**
Trade A 1y	500,000	500,000	682,811	904,836	640,221
Trade A 4y	500,000	500,000	2,537,639	1,461,200	330,465
Trade A 10y	1,500,000	1,500,000	5,508,517	2,352,517	654,945
A {1y,4y,10y} netted	2,500,000	2,500,000	8,728,955	3,318,565	1,103,119
Trade B 1y	5,000,000	5,000,000	5,599,966	2,379,966	1,952,070
Trade B 4y	5,000,000	5,000,000	5,600,083	2,380,000	955,881
Trade B 10y	7,500,000	7,500,000	5,599,890	2,379,890	513,034
B {1y,4y,10y} netted	17,500,000	17,500,000	16,799,897	5,739,897	2,700,504
Trade C 10y	600,000	600,000	4,452,031	1,522,948	349,993
Trade D 10y	3,185,768	2,000,000	7,868,646	4,012,646	1,310,253

Table 3: EADs for CEM and SA-CCR for different trades and maturities

Future BA-CVA charge

Our calculations for the future basic approach (BA-CVA) are based on EAD figures derived from the new standardized approach for CCR capital (SA-CCR) presented in BCBS 279 (see [2]), which was scheduled to become effective by January 1, 2017.[11]

The SA-CCR provides a more risk sensitive approach than the CEM, it recognizes netting and margin agreements in a better way, and it incorporates the IMM multiplier α to account for model inaccuracies. Table 3 demonstrates that for interest rate swaps without CSA, the SA-CCR EAD is significantly higher than the EAD implied by the CEM. It also shows that while the CEM recognizes CSAs only to a small degree, the SA-CCR acknowledges CSAs in a more accurate way.[12]

Let us note that the SA-CCR requires a mapping of every trade to the risk category representing the trade's main risk driver. Following the EBA FINAL draft RTS (see [12]), we map the cross currency swap B to risk category FX.

The resulting CVA risk charges for BA-CVA, which will be compared to the other approaches further on, are presented in Table 4.

In addition to different EADs, the general differences between the current standardized approach and the future basic approach are the following[13]:

- risk weights for different counterparty sectors from the current range of 0.7% to 10% change to a new range of 0.5% to 12%
- there is a reduction by the conversion factor α =1.4, an additional multiplication by 0.65 and the factor 2.33 does not appear explicitly any more

Overall, for the investment grade financial counterparty (with an old risk weight of one percent), the scaling factor between the BA-CVA charge and the current standardized approach charge (assuming unchanged EADs) is[14]:

$$\frac{RW_{fin}^{BA\text{-}CVA} \cdot scaling^{BA\text{-}CVA}}{RW^{curr\text{-}SA} \cdot scaling^{curr\text{-}SA}} = \frac{5\% \cdot 1.4^{-1} \cdot 0.65}{1\% \cdot 2.33} \approx 1.00$$

and for the corporate counterparty it is:

$$\frac{RW_{corp}^{BA\text{-}CVA} \cdot scaling^{BA\text{-}CVA}}{RW^{curr\text{-}SA} \cdot scaling^{curr\text{-}SA}} = \frac{3\% \cdot 1.4^{-1} \cdot 0.65}{1\% \cdot 2.33} \approx 0.60$$

In particular, the differences between the financial and the corporate counterparty are triggered by the different risk weights (5% vs. 3%) for the same rating class, so the ratio of financial to corporate is 5/3 = 1.67 for all trades.

Future SA-CVA charge

Results for the future standardized approach are presented in Table 4. The most relevant risk factors are credit spreads, especially for the collateralized portfolios. For those portfolios with cross currency swaps, the FX Vega cannot be neglected either. Both aspects are prominently visible in Trade B with a maturity of 10y, due to the large exposure originating from the notional exchange at maturity. For instance, in the Financial case without CSA, the bucketed capital charge K_b is around 530k EUR for credit spread delta, 80k EUR for IR delta and 95k EUR for IR vega, while the total charge for FX is around 25k EUR. Since we assume identical credit spreads (and, thus, identical CVA sensitivities) for both counterparties, the differences between Financial and Corporate are solely due to different risk weights for credit spread delta.

The new formula

$$S_b = \max\left\{-K_b;\ \min\left(\sum_{k \in b} WS_k\ ;\ K_b\right)\right\}$$

introduced in BCBS 507 (see [10]) reduces the SA-CVA charge for the cross currency swap B because it allows a partial offsetting of the positive IR EUR delta with the negative IR USD delta. The largest effect of this change occurs at maturity 1y, where it reduces the capital charge by approximately 25% (regardless of the collateralization).

Comparison

Table 4 compares the results for the current standardized method, for BA-CVA and for SA-CVA.

The general observation is that the BA-CVA is unfavorable in the uncollateralized case. In a collateralized setting, the SA-CVA is most favorable.

For the Financial, CVA risk charges for BA-CVA show a significant increase compared to the current standardized approach. Exceptions are the collateralized cross-currency swaps and the IM collateralized portfolios, for which the larger collateralization benefit recognized by the SA-CCR EAD is visible.

11 We point out that the SA-CCR has still not been completely adopted by many countries, including the European Union (see [9]). SA-CCR is included in the CRR2 (see [14]), which entered into force in June 2019. The rules need to be applied by banks two years later.

12 For Trade A 1y, the CSA increases the SA-CCR EAD, which is due to the CSA's minimum transfer amount (MTA). For longer maturities, such effects are dominated by the PFE terms.

13 The scaling factor of 1.4 included in the consultative paper (see [4]) to account for additional risk from increasing exposures was dropped in the finalized BCBS framework (see [7]) and instead, a factor of 0.65 has been introduced in BCBS 507 (see [10]).

14 We write curr-SA for the current standardized approach.

no CSA

		Financial			Corporate		
		Current	BA-CVA	SA-CVA	Current	BA-CVA	SA-CVA
IR ATM	A01	11.364	15.461	7.698	11.364	9.277	6.195
	A04	42.236	213.569	120.462	42.263	128.142	84.879
	A10	275.035	1.006.308	1.024.224	275.035	603.785	688.146
	AN	257.697	896.461	1.139.910	257.697	537.876	769.398
XCCY	B01	113.635	126.803	7.505	113.635	76.082	5.943
	B04	422.357	471.307	128.589	422.357	282.784	91.458
	B10	1.375.175	1.023.000	733.210	1.375.175	613.800	519.370
	BN	1.803.880	1.725.343	855.760	1.803.880	1.035.206	605.528
IR OTM	C10	110.014	813.307	871.697	110.014	487.984	590.786
IR ITM	D10	584.132	1.437.461	1.193.889	584.132	862.477	793.921

CSA

		Financial			Corporate		
		Current	BA-CVA	SA-CVA	Current	BA-CVA	SA-CVA
IR ATM	A01	11.364	20.489	7.343	11.364	12.293	5.869
	A04	42.236	122.975	35.201	42.236	73.758	23.109
	A10	275.035	429.763	94.662	275.035	257.858	59.728
	AN	257.697	340.815	98.430	257.697	204.489	62.209
XCCY	B01	113.635	53.891	6.733	113.635	32.334	5.266
	B04	422.357	200.303	29.235	422.357	120.182	19.336
	B10	1.375.175	434.764	74.791	1.375.175	260.858	49.890
	BN	1.803.880	589.486	81.712	1.803.880	353.691	54.428
IR OTM	C10	110.014	278.216	86.638	110.014	166.929	55.190
IR ITM	D10	366.713	733.039	102.529	366.713	439.823	64.310

CSA + IM

		Financial			Corporate		
		Current	BA-CVA	SA-CVA	Current	BA-CVA	SA-CVA
IR ATM	A01	11.364	14.497	6.261	11.364	8.698	4.940
	A04	42.236	27.812	15.064	42.236	16.687	10.221
	A10	275.035	119.647	25.217	275.035	71.788	16.475
	AN	257.697	113.290	25.056	257.697	67.974	16.344
XCCY	B01	113.635	44.202	5.308	113.635	26.521	4.110
	B04	422.357	80.448	6.274	422.357	48.268	4.182
	B10	1.375.175	93.722	11.663	1.375.175	56.233	7.515
	BN	1.803.880	277.341	11.636	1.803.880	166.405	7.491
IR OTM	C10	110.014	63.937	23.726	110.014	38.362	15.507
IR ITM	D10	366.713	239.360	27.043	366.713	143.616	17.804

Table 4: Comparison of the current standardized method, the BA-CVA and the SA-CVA for different collateralization scenarios and different counterparty scenarios; Trade A 1y is abbreviated as A01, netting set A {1y,4y,10y} is abbreviated as AN, and similarly for the other trades / netting sets. The spark lines indicate which method yields the highest (red) or lowest (green) capital charge for the trade or netting set, whereas the heat map relates all results.

Without CSA, the basic approach significantly increases the capital charge for both counterparties – except for the 10y cross currency swap[15] – compared to the current standardized approach.

The ratio of Financial to Corporate for BA-CVA is flat at 1.67, while for SA-CVA it is within the range of 1.1 to 1.6. The variation originates from varying credit sensitivities between the trades which remain the dominant part of the SA-CVA capital charge.

It is plausible that the future SA-CVA capital charge is favorable for collateralized trades; the SA-CVA computations build upon real CVA sensitivities, fully acknowledging the exposure mitigating effect of collateral. For trades with maturities larger than 4y and without CSA, SA-CVA charges are generally higher than the current capital charge, whereas for trades with CSA this order is reversed.

The differences among the new approaches derived in the unhedged case are likely to increase further in the case where CVA hedges are present, due to the following reasons (see [10]):

- SA-CVA allows credit spread as well as exposure hedges, while BA-CVA only allows credit spread hedges
- the hedging benefit for BA-CVA is capped at 75% of the unhedged BA-CVA, while SA-CVA in principle allows hedging up to 90% of the unhedged SA-CVA

4. Conclusion

Our sample calculations show the potential impact of the two approaches that have been presented in the finalized BCBS framework (BCBS 424, see [7]) and have been revised in BCBS 507 (see [10]). The most important results are:

- Compared to the current standardized approach, BA-CVA will increase the CVA risk capital charge for many uncollateralized portfolios
- Collateralized portfolios (and portfolios with exposure hedges) will significantly benefit from SA-CVA

The new CVA risk regulation framework can be a turning point for many medium-sized banks, for which the capital savings entailed by the SA-CVA for collateralized portfolios may outweigh the costs associated with the introduction and maintenance of a Monte Carlo based CVA sensitivity computation framework as well as an active CVA desk. For these banks it is the first time that the Basel Committee has acknowledged simulation based approaches to CVA, which already prevail at the accounting level, at the level of regulatory capital requirements.

These results are also supported by the EBA impact study[16] (see [11]), which determined an increase of the CVA risk charge by more than 200% on average for smaller banks. With the removal of the corporate exemption, the average impact on all banks was estimated to be 558%. The impact study also shows that, while the increase in capital requirements is almost certain for small and large banks, medium sized banks have the chance to get through the reform with stable or even reduced capital requirements.

This chance must not be missed. Banks should prepare now, conducting individual impact and gap analyses and getting their CVA sensitivity calculations and CVA hedging activities running in time, to avoid falling into the BA-CVA capital trap.

With its extensive experience and know-how, d-fine has long been a leading consulting company for the financial industry. Our knowledge on financial markets, risk control and reporting, paired with deep regulatory insight, enables us to readily offer solutions for SA-CCR, the new CVA risk charge and CVA management.

15 Let us note that Trade B 10y without CSA is an exception since here the SA-CCR EAD is smaller than the CEM EAD (see Table 3). This is because for FX contracts, the CEM percentage applied to the notional changes from 5% to 7.5% for maturities exceeding five years, which has no equivalent counterpart at the SA-CCR level.

16 Since the impact study, regulatory SA-CVA parameters have been updated and BA-CVA has been reduced by a factor of 0.65, which still leaves a significant overall increase.

Appendix

References

[1] Andersen, Leif B.G. and Pykhtin, Michael and Sokol, Alexander, Credit Exposure in the Presence of Initial Margin. July 2016

[2] Basel Committee on Banking Supervision. The standardised approach for measu ring counterparty credit risk exposures (BCBS 279). March 2014

[3] Basel Committee on Banking Supervision. Margin requirements for non-centrally cleared derivatives (BCBS 317). March 2015

[4] Basel Committee on Banking Supervision. Consultative Document: Review of the Credit Valuation Adjustment Risk Framework (BCBS 325). July 2015

[5] Basel Committee on Banking Supervision. Instructions: CVA QIS. February 2016

[6] Basel Committee on Banking Supervision. Reducing variation in credit risk-weighted assets - constraints on the use of internal model approaches (BCBS 362). March 2016

[7] Basel Committee on Banking Supervision. Basel III: Finalising post-crisis reforms (BCBS 424). December 2017

[8] Basel Committee on Banking Supervision. Minimum capital requirements for market risk (BCBS 352, 457). January 2016, revised January 2019

[9] Basel Committee on Banking Supervision. Sixteenth progress report on adoption of the Basel regulatory framework (BCBS 464). May 2019.

[10] Basel Committee on Banking Supervision. Targeted revisions to the credit valuation adjustment risk framework (BCBS 507). July 2020

[11] European Banking Authority: Basel III reforms: Impact study and key recommendations. August 2019

[12] European Banking Authority. EBA FINAL draft Regulatory Technical Standards on mapping of derivative transactions to risk categories, on supervisory delta formula for interest rate options and on determination of long or short positions in the Standardised Approach for Counterparty Credit Risk under Article 277(5) and Article 279a(3)(a) and (b), respectively, of Regulation (EU) No 575/2013 (revised Capital Requirements Regulation – CRR2). December 2019

[13] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on Prudential Requirements for Credit Institutions and Investment Firms and amending Regulation (EU) No 648/2012. Official Journal of the European Union (L176). June 2013

[14] Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, expo sures to collective investment undertakings, large exposures, reporting and disclo sure requirements, and Regulation (EU) No 648/2012

Authors

Dr Ruth Joachimi
Manager, d-fine GmbH, Frankfurt
ruth.joachimi@d-fine.de

Dr Ken Lichtner
Senior Consultant, d-fine GmbH, Berlin
ken.lichtner@d-fine.de

Dr Holger Plank
Partner, d-fine AG, Zürich
holger.plank@d-fine.ch

Nadja Schuster
Partner, d-fine GmbH, Frankfurt
nadja.schuster@d-fine.de

Berlin
d-fine GmbH
Friedrichstraße 68
10117 Berlin
Germany
berlin@d-fine.de

Dusseldorf
d-fine GmbH
Dreischeibenhaus 1
40211 Dusseldorf
Germany
duesseldorf@d-fine.de

Frankfurt
d-fine GmbH
An der Hauptwache 7
60313 Frankfurt
Germany
frankfurt@d-fine.de

London
d-fine Ltd
6-7 Queen Street
London, EC4N 1SP
United Kingdom
london@d-fine.co.uk

Munich
d-fine GmbH
Bavariafilmplatz 8
82031 Grünwald
Germany
muenchen@d-fine.de

Vienna
d-fine Austria GmbH
Riemergasse 14 Top 12
1010 Vienna
Austria
wien@d-fine.at

Zurich
d-fine AG
Brandschenkestrasse 150
8002 Zurich
Switzerland
zuerich@d-fine.ch

d-fine