

THE BELOW ANALYSIS IS AN ATTEMPT, WHICH IS COULD BE WRONG!

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$$SCVA_c = \frac{1}{\alpha} \cdot RW_c \cdot \sum_{NS} M_{NS} \cdot EAD_{NS} \cdot DF_{NS}$$

Comment: it says in the document, that banks that have supervisory approval to use the IMM, M_{NS} is calculated per [CRE53.20] and [CRE53.21], but I could not find those references! And hence it is not known for me how the effective maturity M_{NS} is calculated, and how does M_{NS} changes from year to year! Hence, my argument is the following:

For all banks using the IMM, $DF_N = 1$. But in this case, say if, $M_{NS} = 2$, then the exposure (EAD_{NS}) would be doubled, hence $SCVA_c$ will be doubled! For example: say I took (gave) a loan from (to) a bank, and posted (receive) a collateral to (from) that bank. Why then would the capital requirement be doubled if the redemption of the collateral is 2 years vs. a redemption of 1 year. In other words, why I am doubling the required capital for $SCVA_c$ per 1-unit increase in maturity?

It is true that risk increases as maturity increases, but not to the level that causes me to panic and double the capital requirements! Hence from a beginner's perspective, I propose the following to calculate the effective maturity M_{NS} (used as M_n below, where the subscript n represents the year of maturity):

$$M_n = (0.15 \times n) + 1, \text{ which considers FULL amount of } EAD_{NS} \dots (\text{eqn 1})$$

$$M_n = (0.15 \times n), \text{ which considers PARTIAL amount of } EAD_{NS} \dots (\text{eqn 2})$$

What's happening here is that I am gradually and reasonably increasing the capital requirements when maturity increases. So, when M_n is 2, 3 or 4; $SCVA_c$ will no longer be doubled, tripled or quadrupled respectively! Instead, using (eqn 1) above, if the year of maturity is 7, then in this case $SCVA_c$ will approximately be doubled!

Note: (eqn 2) above is written in case you would like to have backup capital that covers a portion (rather than the whole) of the exposure. Because in page 2, it says:

"CVA risk constitutes less than 2% of banks' overall capital requirements on average, which means that any increase in CVA capital requirements is unlikely to result in a significant change in banks' overall capital requirements on average."