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Basel III CVA charge still flawed; lacks risk sensitivity

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Finalised by the Basel Committee in December, a capital charge for credit value adjustment (CVA) will have a significant impact on major derivatives dealers. But risk managers argue the revised charge is not risk-sensitive enough and fails to reflect the diversity of approaches to CVA.

Bankers breathed a sigh of relief in December, when the publication of the final text of Basel III confirmed what many already suspected – the Basel Committee on Banking Supervision had accepted its original proposals for a credit value adjustment (CVA) capital charge were too onerous and had decided to make significant changes. The revised measures have been welcomed as a vast improvement that better reflect bank CVA exposures. But many participants remain uneasy, and claim further changes are needed – particularly around the use of own models and sensitivity of CVA to market factors.

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The CVA capital charge forms part of a package of measures on counterparty credit risk within Basel III. While other parts of the framework – specifically, the increase in minimum capital requirements, new counter-cyclical buffer and liquidity ratios – may have the broadest implications, the counterparty credit risk rules could end up having the biggest impact on over-the-counter derivatives dealers.

“There are parts of the rules, especially relating to the capital definitions and what qualifies as Tier I common equity, that really do have broad implications. But if you look at what is going to affect the business strategy, I would argue the implications for counterparty exposure are very significant,” says Alok Sinha, San Francisco-based partner and leader of the regulatory and economic capital services practice at Deloitte.

The counterparty credit risk rules comprise a number of elements. Along with the CVA requirements, an asset value correlation multiplier of 1.25 will be applied for counterparty exposures to unregulated financial institutions and regulated firms with total assets of $100 billion or more. Wrong-way risk is also tackled, while a greater focus on collateral and an increase in the margin period of risk is introduced. In a completely new addition to the rules, banks will also be required to hold capital against exposures to central counterparty (CCP) default funds.

These rules are partly intended to act as an incentive to clear large portions of OTC derivatives portfolios through CCPs – cleared trades will attract a low risk weight, proposed at 2%, and will not be subject to the CVA capital charge. But there will be plenty of transactions that aren’t eligible for clearing, say dealers.

“Assuming you’re trading with a large number of counterparties, the charge for counterparty credit risk would go up by a large factor – perhaps two times compared with what it is under Basel II. The way banks are probably going to react to that is to move trades to clearing houses, but there is still going to be a very large number of trades that will not go into a clearing house,” says Eduardo Canabarro, managing director of quantitative risk at Morgan Stanley in New York.

That is why the CVA charge is so important, say dealers. The original proposal on CVA was published in December 2009, and introduced a so-called bond-equivalent approach that essentially used a zero-coupon bond as a proxy for counterparty risk exposures. The notional of the bond was fixed at the total exposure-at-default (EAD) of a counterparty, while the maturity was set at the longest effective maturity across OTC netting sets.

The proposal provoked fierce criticism from dealers, who argued the measure was not sensitive to changes in credit spreads and would mean banks are essentially penalised for hedging their exposures.

The revised methodology tackles some of the issues raised by market participants. A new advanced approach will be open to those banks with approval to apply the internal models method (IMM) and specific risk value-at-risk models, which will take changes in counterparty credit spreads into account. The revised methodology also considers the term structure of expected counterparty exposure, rather than assuming a constant EAD.

Given the additional complexity, a new standardised approach for calculating the CVA capital charge has also been introduced for those banks without approval to model specific risk VAR or use the IMM. This is based on a standard formula, with certain inputs set by the regulator. For instance, the counterparty must be mapped to one of seven weights set by the Basel Committee, based on its rating.

"Previously, regulators tried to have a one-size-fits-all method because they wanted to accommodate firms that couldn't do the modelling as well as those that could. You now have two methods – one for simpler firms and one for complex firms. But it's still a limited allowance on the modelling side," says Steven Hall, director in financial risk management at KPMG in London.

It is not the first time the Basel Committee has been forced to change its plans on CVA. The December 2009 proposals contained a five times multiplier that provoked howls of protest from the industry, with dealers branding it horrifically conservative. Moreover, the original text stipulated only single-name credit default swaps (CDSs), single-name contingent CDSs and other equivalent instruments directly referencing the counterparty could be recognised as hedges. This meant CDS indexes would not have qualified as a hedge for regulatory capital purposes.

Both complaints were addressed in July last year, with supervisors making a limited allowance for index hedges and dropping the five times multiplier. Under the current rules, CDS index hedges can be used, but the basis between any individual counterparty spread and the spreads of index hedges must be reflected in the VAR calculation. Tranched and nth-to-default CDSs are not eligible as CVA hedges.

"Regulators started very far away from what we would think of as a reasonable capital charge for CVA risk. They quickly realised they were off because the first quantitative impact study showed numbers that were astronomical. I think they were surprised," says Canabarro at Morgan Stanley.

However, the revised charge continues to worry market participants. Many would like to use their own models, which the major banks at least claim are much more sophisticated than the methodology proposed by the Basel Committee.

Sophisticated calculations

"Firms have invested tens of billions of dollars in this type of infrastructure, not at the behest of the capital rules but in their own interests. The benefit is that more sophisticated calculations can be done by the institutions that carry the vast majority of CVA risk," says a London-based counterparty risk manager.

Another criticism is that the revised model is restricted to changes in the credit spread of the counterparty and does not model the sensitivity of CVA to changes in market factors. "We welcome the evolution of the original proposals to the current proposals, which are similar to what the industry has put forth. But we regret that the market risk component has not been added," says Ricardo Rebonato, head of front office risk management and quantitative analytics at Royal Bank of Scotland.
Market risk plays a major part in CVA exposures – and as such, many dealers look to hedge CVA sensitivity to interest rates, foreign exchange rates and other market factors.

However, market risk hedges would not be recognised within the advanced CVA model. Worse still, the current rules would treat the hedges as if they were adding to overall risk, penalising those dealers that hedge the market-factor sensitivity of CVA.

"If I put on a swap to hedge against the market risk sensitivity in my CVA, the swap goes into my market risk VAR calculation but CVA doesn't, so it looks like I've got an unhedged position. That's a disincentive to hedge," says one New York-based former risk manager.

In a perfect world...

Dealers portray the issue as one of a number of problems caused by a separation of the CVA and market risk rules. In a perfect world, many bankers say they would prefer to see CVA fully integrated with the Basel Committee's market risk framework, with banks allowed to use their own models with supervisory approval. As well as allowing for the sensitivity of CVA to market risk, they believe a more integrated approach would help eliminate various instances of double-counting in the rules. For instance, while risk managers say credit spread movements and jump-to-default risk should be calculated together, the advanced CVA risk capital charge calculates them separately.

"The proposal is much improved compared with the initial one, but it is still not what we would like the regulators to do, which is to look at CVA as an integral component of the trading book. The right way to do CVA is not to come up with stand-alone rules for CVA risk, but to integrate CVA risk into the trading book charge that banks already calculate," says Canabarro at Morgan Stanley.

Although some senior supervisors have expressed sympathy with the idea of a more integrated approach, industry sources believe the very tight timeline imposed by the Group of 20 nations has prevented the Basel Committee from achieving it. "The regulators were working to a very strict timetable and had to get something done by the end of last year. Moreover, they were told they couldn't use any new models, so instead they used simplified formulas.

Simplified formulas have certain limitations and one of them is that you just can't really calculate market risk sensitivities," says a senior risk manager at a major US bank in New York.

Another concern is the treatment of CVA losses that have already been booked through the profit and loss statement. The Basel Committee's original proposals did not take these losses into account, prompting a number of participants to point out that once an asset has been written down, you can't lose money a second time. The new rules treat them as a reduction in counterparty exposure.

"A lot of people in the industry believe you ought to calculate capital then subtract CVA, and that there's a lot of double-counting there because you shouldn't be counting what you've already lost. The regulators didn't buy that argument though, and they ended up proposing that you subtract CVA from exposure," adds the New York-based senior risk manager.

Some dealers argue it would be more theoretically sound to adjust losses for loss given default (LGD), which would result in a lower capital charge. Supervisors may yet decide to go with the suggestion – the idea of adjusting incurred losses for LGD is one of a number of issues subject to an additional quantitative impact assessment expected to be completed in the first quarter. The Basel Committee will also use the exercise to determine whether the standardised and advanced CVA risk capital charges are well calibrated in relation to each other.

Risk managers are now pinning their hopes on a fundamental review of the Basel trading book rules, which will be carried out over the coming year. Several banks have already sat down with the Basel Committee's trading book group to press for a review of the CVA charge and are hopeful it will be looked at. However, as with previous reviews, there is concern the trading book group does not have enough time to properly address the complex modelling challenges of CVA – the rules are set to come into effect from January 2013.

"I have respect for what the regulators are trying to do, but they've bound themselves to a ridiculous time frame," says the London-based counterparty risk manager.

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