

The high price of counterparty risk

BBVA'S TERESA MARTINEZ PUERTO AND NATIONAL GRID'S GEORGE KARALIS EXPLAIN WHAT IS MAKING DERIVATIVES MORE EXPENSIVE FOR CORPORATES AND WHAT TREASURY DEPARTMENTS CAN DO ABOUT IT.

Have you, as a corporate client, noticed any significant changes in the pricing of derivatives recently? If you are a regular user of credit-intensive derivatives, your likely answer will be “yes”, and probably “not for the better”. But why is this happening, what could happen going forward, and what can be done about it from a corporate treasury perspective?

Since the collapse of Lehman Brothers in 2008 and the subsequent financial crisis, the world of derivatives has changed. Counterparty credit risk and funding cost adjustments are now much more significant factors in the pricing process. This should not come as a surprise. The banking supervisory authorities are introducing legislation to ensure that financial institutions hold sufficient capital against losses associated with the default risk of counterparties involved in derivatives contracts. These new rules have been a key driver for banks and corporates to take a more active approach in counterparty credit risk management.

CREDIT VALUE ADJUSTMENT Prior to 2008 the standard approach for controlling counterparty credit risk was to apply credit limits for measuring and controlling actual and potential future exposures. Since the financial crisis, banks have moved to a more dynamic and mark-to-market-based methodology: credit value adjustment (CVA).

The CVA for a particular derivative corresponds to the market price of its counterparty credit risk at inception as well as all along the life of the trade. It takes into account counterparties' creditworthiness in the value of any derivative. It fluctuates over time in line with the market value of such credit risk and so could also be defined as the market-expected value of credit losses over the life of a derivative. The perfect CVA hedge would transform any derivative into a “counterparty-credit-risk-free” derivative.

CVAs are counterparty-specific calculations. If a netting agreement exists with a counterparty, then the CVA computation should take current derivative exposures into account when a new transaction is added to the counterparty's portfolio. The credit charge applying to the new transaction should reflect its effect on the overall credit risk of the portfolio. This “incremental CVA” can in fact be negative if the new transaction reduces the credit risk of the portfolio.

Large financial institutions are now pricing CVA into derivative

transactions at the time of dealing but the methodology differs from bank to bank, so pricing discrepancies can be quite large.

In calculating CVA, credit default swaps (or asset swap spreads) are required to compute the counterparty's market-implied default probabilities and appropriate modelling is necessary to estimate the joint evolution of these with other market risk variables (interest rates, FX rates, etc) affecting the expected (positive) exposure of the underlying derivative. Risk mitigants such as break clauses and collateral agreements are also very important; nor should potential wrong-way risks be ignored.

CVA DESKS AT BANKS The management of counterparty credit risk in derivatives has become a priority for most banks. The mandate of a bank's CVA desk goes far beyond credit pricing and hedging of uncollateralised or partially collateralised trades. Streamlining master agreements and CSAs (credit support annexes), addressing collateral posting issues, active searching of CVA-optimising trades as well as coping with demanding regulatory requirements are some of the challenges facing the CVA team.

BASEL III, EMIR AND CRD IV In November 2010 the G20 summit in Seoul, South Korea, issued a leaders' declaration: “The global financial system came to a sudden halt in 2008 as a result of reckless and irresponsible risk taking by banks and other financial institutions, combined with major failures of regulation and supervision.” The G20 leaders highlighted over-the-counter (OTC) derivatives as one of the areas where more regulation was needed to bring stability to financial markets.

Under the European Markets Infrastructure Regulation (EMIR), the EU will direct the central clearing of OTC derivatives or their reporting to trade repositories. Non-financial counterparties will be subject to the clearing obligation only if their derivatives position exceeds a particular threshold (still to be fully defined). Derivatives used for hedging will probably be excluded in determining whether the clearing threshold is reached.

Under Basel III and the European Capital Requirements Directive (CRD IV), banks will be required to increase their capital buffers for market risks and counterparty risk, hold significantly more common

equity and operate under new liquidity standards with a higher stock of liquid assets as well as maintain sufficient sources of stable funding for longer periods.

These regulatory changes are likely to have an indirect impact on the pricing of derivatives for corporate clients.

THE CORPORATE PERSPECTIVE The two main concerns for corporates following the financial crisis and the subsequent regulatory changes are counterparty risk and increased costs associated with derivatives. Many bank counterparties have suffered credit rating downgrades and more are expected in the near future. Some organisations also have an A3/A- minimum counterparty rating requirement, and some International Swaps and Derivatives Association (ISDA) documents have additional termination events that will be triggered following a ratings downgrade below this threshold. All this has increased the requirement for corporate treasuries to review counterparty risk policies and put in place additional risk mitigating solutions.

HIGHER COSTS AND POTENTIAL SOLUTIONS The impact of the new regulatory framework from a funding, credit and capital charge perspective will also be much higher for uncollateralised trades (and most corporates trade on an uncollateralised basis). The charges will be heavier for long-dated derivatives and for lower-rated entities with no liquid credit default swaps. To mitigate counterparty risk and reduce derivative charges, corporate clients could consider a number of solutions:

Collateralisation via CSAs. In this case the corporate will have to evaluate the impact on liquidity of its derivatives portfolio and the cost of funding the collateral, potential impact on covenants, credit ratings and hedge accounting as well as the cost of putting the necessary infrastructure in place.

Uncollateralised hedging. If collateralisation is not viable for the corporate, the treasury department will have to analyse the increased cost of any hedge versus the economics of hedging. If the decision is to continue hedging on an uncollateralised basis, then other alternatives are worth considering:

- putting natural hedges in place;
- regularly compiling information on how credit spreads are changing over time for different products with different counterparties;
- assessing the derivative position on an ISDA basis by having a portfolio approach, and trying to transact offsetting trades that reduce potential exposure;
- performing credit auctions for certain credit-intensive derivatives;
- introducing mandatory break clauses (although this imposes the risk of replacing the hedge before expiry); and
- using reset features – agreements to restructure the transaction periodically to bring the mark to market very close to zero.

NATIONAL GRID'S EXPERIENCE Over the past few years National Grid has experienced higher charges on new derivatives and in terminations as well as a large disparity in quotes for the same instruments between different counterparties. The company uses derivatives extensively to hedge interest rate and currency risks. Due to a large existing debt portfolio (around £23bn), a growing capital expenditure programme and the long life of its assets, it requires the continued use of long-dated credit-intensive derivatives. In

addition, it recognises that the credit quality of bank counterparties has weakened materially.

National Grid has therefore performed a cost-benefit analysis and identified that putting CSAs in place would give it optimal cost efficiency and counterparty risk mitigation. The group currently operates under CSAs (with ratings-based thresholds and monthly collateral payments) with the vast majority of its counterparties and is considering reducing thresholds and posting frequency to make pricing more competitive.

CSA CONSIDERATIONS Corporate treasuries need to take into account certain factors before implementing collateralisation. Most use derivative transactions to manage risks so they can reduce earnings volatility and smooth cashflows over time. Having to post cash collateral on a frequent basis will introduce cashflow volatility.

One of the main implications of a CSA is exposure to liquidity risk. Unlike financial institutions, corporate clients have the majority of their assets in non-financial, illiquid assets. Liquidity risk can be managed by keeping large cash balances (but the cost of carry may be painful), relying on committed bank facilities (not ideal for cost and counterparty risk), or using the commercial paper market (which may be unavailable in the event of market distress).

Asymmetric exposure is another consideration. Corporates tend to have one-sided exposures in a given market due to their business profiles.

CSA negotiations can also be time-consuming. CSAs require resources and efficient systems in order to calculate and agree valuations and transact cash payments. Daily CSAs are generally the standard. The operational burden of CSAs can be reduced by using weekly or even monthly collateral posting frequency, minimum transfer amounts and potentially higher thresholds (sacrificing a portion of the reduction in credit charges). Collateralisation will improve hedge effectiveness since the credit-adjusted value of the hedge instrument will be identical or very close to the actual mark-to-market value.

Under the new market and regulatory landscape for derivatives, corporate treasuries will need to reassess their hedging strategies going forward and be more innovative.

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