

## Global investment bank takes IHS Markit XVA Solution

## Background

A bank's ability to run a profitable derivatives business depends on knowing all the costs involved in trading derivative contracts. These valuation adjustments (XVAs) have grown both in size and complexity over the last decade driven by new regulations such as bilateral initial margin and regulatory risk capital. This changing landscape is driving existing CVA systems into obsolescence as they struggle to meet requirements that they were never designed to cover.

A leading global investment bank looked to upgrade its XVA platform in order to have a complete and accurate picture of the true P&L associated with potential deals.

The bank realized their peers were generally pricing in counterparty credit risk and funding costs in their trades and the firm wanted to go further and include collateral and margin valuation adjustments and the impact of the forthcoming SA-CVA risk capital.

For SA-CVA, the firm want to ensure that their book has an attractive return on capital after the regulation comes into force. That means looking at the capital impact of any trades now which will mature after 2022.

The bank require this information to be delivered fast enough to drive traders' decisions and cover their entire derivatives portfolio. Knowing how costs change under market moves through their sensitivities is also crucial so that those risks can be hedged.

## Solution

Financial Risk Analytics from IHS Markit provides solutions to financial institutions supporting risk management, risk regulatory capital and derivative valuation adjustments. It offers a specific solution for XVA desks delivering deal-time insight to the front office along with a comprehensive view of the valuation adjustments arising from counterparty credit risk, funding, collateral and regulatory capital.

In the fast and furious world of trading, having the latest software is key to gaining a business advantage. The technology underpinning IHS Markit's XVA solution allows trade-level valuations generated in the batch Monte Carlo simulation to be stored in a distributed file system and re-used when calculating pre-deal XVA. This makes it unnecessary for firms to re-run valuations for existing trades. Another advantage of the solution is the ability to allocate XVAs back to individual trades through Euler allocation.

IHS Markit's XVA solution allows trade-level valuations generated in the batch Monte Carlo simulation to be stored in a distributed file system and re-used when calculating pre-deal XVA IHS Markit's investment in new technologies such as open source big data and cloud computing means clients can tackle the computational challenge of calculating all XVAs in one system. In addition, using agile development practices with fortnightly sprints enables continuous integration and frequent releases to production.

In 2019, the bank installed the IHS Markit XVA system to gain access to a complete view of the valuation adjustments supporting pre-deal and what-if analysis so traders can accurately price trades and explore the impact on price from changing deal terms or selecting different dealers/ central counterparty (CCPs) to place hedge trades.

Before using IHS Markit's XVA solution, the bank had a lengthy procurement cycle for physical hardware on premise. Now, they can leverage cloud providers such as AWS or Azure to secure computing resource instantaneously. This has revolutionised their ability to deliver technology solutions to their business users.

## **Benefits**

Using IHS Markit's XVA solution, means the bank no longer needs to re-run time consuming valuations for a counterparties' existing trades. Only new trades need to be valued on the simulated paths and a complete set of XVAs can be returned to the user in under a minute giving unparalleled insight into the costs of trading. For other types of what-if request such as novating trades or changing the terms of collateral agreements, the calculation can be handled by simply re-aggregating the stored data providing fast and compute-efficient results.

Being able to calculate the impact of a new trade on counterparty and enterprise-level valuation adjustments is an enormous benefit to a bank and means that the bank has an accurate view of a trade's contribution to balance sheet costs before committing to a trade. Over time, this will mean it can accumulate positions that show good return on investment allowing them to outperform their peers.

Clients can tackle the computational challenge of calculating all XVAs in one system.

With IHS Markit's XVA solution, the bank now has a complete picture of their valuation adjustments, including the forthcoming SA-CVA risk capital. This has given them a competitive advantage in the market.