Risk publications

AsiaRisk Awards 2024 WINNER

Risk.net

XVA solution of the year

Murex

XVA solution of the year

Murex

With predictions of when the US Federal Reserve might cut rates constantly changing, it has been a roller-coaster year for markets. This has encouraged financial institutions to push out new innovations to their clients. Having reliable support with derivatives valuation adjustments (XVAs) helps them capture these opportunities.

Alexandre Bon, Murex

Murex's MX.3 platform offers a comprehensive suite of XVA pricing, analysis and portfolio management tools across all asset classes.

A particularly valuable feature this year has been real-time what-if analysis, which allows the XVA desk to quickly understand what impact the changes in the market environment could have on new deals or existing portfolios.

This has allowed firms to act on opportunities they spot in the market, while keeping close watch over funding and exposure spreads.

"Whenever you have a structural shift in the risk factors of an asset class, banks are going to want to promote new innovative products," says Alexandre Bon, Murex's head of market development for Asia-Pacific (Apac). "The time taken to get the product to market is crucial here. This means having all XVA calculations ready. It's a huge competitive advantage if a firm can manage a new product end-to-end quickly."

To support rising demand in Apac for XVA analytics, Murex has increased the size of its XVA analytics team in the region from two to seven. The team of experts are spread across Tokyo, Singapore, Hong Kong and Sydney, ensuring clients have local support throughout the entire model validation process.

"The Murex model of expertise and proximity support sets us apart in Apac," says Bon, and feedback from clients has certainly been positive.

Youness Bouisouden, co-founder of Alef Analytics, a third-party model validator, says: "The Murex team provides extensive technical documentation and detailed quantitative debugging logs, enhancing our understanding of each calculation step. Their rapid and insightful responses have enabled us to complete model validation in a record timeframe."

Funding opportunities

Persistently high interest rates have pushed many currency swap positions out of the money, resulting in a net funding benefit that can be monetised. Murex's funding value adjustment (FVA) tools have helped clients take advantage of this opportunity. In recognition of some of the challenges Apac clients face, Murex has made a slight tweak to the methodology that it uses for FVA.

One important consideration when crunching the numbers is what happens when the funding currency is different from the currency of the cashflows of the liability. This can have a material impact on the total funding cost and is particularly relevant for banks in Apac, where funding is often conducted in US dollars, while swaps are largely denominated in the local currency.

Thanks to the enhancement Murex has introduced, clients are now able to capture this cross-currency basis risk for collateralised and uncollateralised trades.

"We offer a unique combination of constant technology innovation and Asia-based support expertise. This allows our clients' XVA desks and risk managers to stay ahead in the dynamic markets of the region," says Bon.

Precious metals

Market stress has also caused increased demand in Apac for precious metals products. Singaporean banks have been tapping into this opportunity by offering exotic structures products, such as gold barriers, target redemption forwards and accumulators.

XVA is an important consideration when pricing such products. However, there are specific challenges around running XVA calculations for precious metals. Commodity products are typically diffused and evaluated using a two-factor model approach, but precious metals behave more like foreign exchange risk factors than commodities. Responding to client needs, Murex has invested in the development of a new one-factor Geometric Brownian motion model, which simplifies the computations for clients.

"To support our growing business, we need an XVA engine that models accurately a variety of commodities. It's very assuring to see Murex having one- and two-factor models that address our needs," says Chew Chee Keong, head of market risk and product control for United Overseas Bank.

Staying flexible

Running an XVA desk is expensive and can be a huge financial burden for smaller institutions. This is why Murex promotes a flexible deployment model, allowing banks to use cloud-based or hybrid cloud architecture.

Banks can add computation capability on a pay-as-you-go basis without needing to secure expensive on-premises infrastructure. Software-as-a-service and business-process-as-a-service deployment models give clients access to Murex's latest updates as they are released.

Murex continues to look for new ways of driving efficiency in XVA calculations.

Over the past 12 months, the vendor's quant team has been trialling a new computer processor, the Nvidia Grace Hopper Superchip. Early indications suggest the superchip can bring a sevenfold performance gain compared to traditional architectures.

"The increased computational efficiency will bring XVA sensitivities and complex what-if calculations closer to deal time, allowing central desks to react, at speed, to market demands. Beyond performance, the processor is four times more energy efficient, supporting banks' transitions to greener technology," says Bon. ■