



# Asia**Risk** Awards 2023

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## Best product for capital markets

# Murex

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June 2023 marked a critical milestone for capital markets firms, as it signified the last stages in the winding down of the US dollar Libor rates. The three-month rates – the base curve for estimating most rate forwards – were replaced by the US dollar SOFR.

All financial institutions had to overhaul their curves and revalidate their figures with the new reference rates.

Matthieu Avanthey, head of product management for Asia-Pacific at Murex, explains rate curves are the basis of all P&L and risk figures for all financial products, from pricing to position-keeping to risk management and finance.

“Changing rate curves is, therefore, a large undertaking. All figures will need model validation – a large amount of work – and the curves will need to work in all these contexts. They need to be fast, robust to stressed markets, accurate and smooth, otherwise there will be potentially large consequences on some figures,” he says.

For example, if the curves and models are too slow, banks run the risk of their daily value-at-risk runs missing regulatory deadlines. If they’re not “smooth enough”, traders potentially get the wrong Greeks.

Avanthey says using the wrong analytics with the new curve definitions can introduce curve oscillations, which can cause mispricing and compromise risk figures and hedge ratios for traders. It is important to get these accurate, particularly when interest rates are volatile.

The SOFR curve presents a challenge for analytics as it is an overnight rate, unlike Libor, which was a forward-looking rate. Curve construction also depends on central bank meeting dates, and there are no directly observable instruments that match those dates.

Murex now offers a curve service API that allows clients to share MX.3 curves with their other systems, spreadsheets and notebooks. The service exposes calibrated and interpolated data, as well as curve scenarios.

MX.3, Murex’s flagship cross-asset, is a front-to-back platform for capital markets. It has a curve module that was developed and enhanced in collaboration with Murex’s most advanced clients.

For example, systems that focus on pricing may not necessarily offer smooth Greeks or performances that will scale across thousands of stress test scenarios. Meanwhile, risk management systems may sacrifice accuracy by simplifying assumptions.

“Our scope, focus, client partnerships and experience allow us to offer a uniquely uncompromising set of analytics,” Avanthey says.

While Murex has the “right” framework right now, it’s also important for it to have the right framework for the next paradigm shifts in the interest rates world. Avanthey says Murex is closely watching for market changes.

Currently, 65 of the top 100 global banks use the MX.3 platform, including 15 of the top 25 Asian banks. Over the past 10 years, Murex has invested over €1 billion (\$1.07 billion) in research and development.



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Matthieu Avanthey, Murex

Its curve service will also evolve as clients discover new needs when they integrate it into their spreadsheets, notebooks and systems.

One example Avanthey points to is that it was one of Murex’s first clients that drove the firm to develop the sharing of Greeks data through the API, hence allowing them to use the curves calibrated values as well as the derived risk sensitivities.

To help the industry better understand the impact of curves, Murex put together a strategic task force and a go-to-market team in place to follow the topic. Avanthey says the task force is a mix of product managers and on-the-ground functional and technical consultants.

“The objective for them is to help firms find the right angles to leverage this new asset we made available for them – which systems and business processes could benefit most from getting better curves, and how to set up the ecosystem to make it happen,” he adds.

Murex has also published a series of videos and articles on rate curves analytics and trading APIs for curve marking and digitalisation.

At the request of the curve service API pilot clients, Murex will share Greeks data through the API on top of calibrated curves and allow clients to use MX.3 rates sensitivities for their products in other systems.

In the next few years, Murex will focus on trading activity digitalisation. Its first objective is to plug seamlessly into traders’ spreadsheets, sourcing data and validated analytics from MX.3 while giving traders the possibility to build their own enhancements on top.

Avanthey says historically, traders had to juggle between the view of the bank in the bank’s official systems and their own view – their heuristics, experiments and secret sauces – which typically reside in spreadsheets.

“What we want to provide is the end of this conundrum; allowing traders to plug directly MX.3 bank-validated analytics, figures and functions into their spreadsheets through API, for them to use as they will,” he says.

For this, Murex will focus on three main areas: pricing; position-keeping; and curves marking. ■