



AsiaRisk Awards 2023

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Best structured products support system
Murex

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Rising interest rates after years of low yields have been reshaping Asia's structured products market over the past 12 months. Murex's MX.3 platform is helping many of the region's financial institutions adapt their structured products businesses to these big changes.

Murex's MX.3 provides complete front-to-back-to-risk structured products solutions as structured product players renew their product lines catering to the latest market movements.

As short-term interest rates have moved higher, certain types of structured products have become more popular. One example is foreign exchange structured notes. These have been niche products for a long time in Asia, rarely seen since the global financial crisis. As these products have come back into favour with clients, dealers have sought the ability to provide competitive quotes quickly for their clients.

Murex delivers an innovative hybrid architecture to solve the computational intensive problem of the market-standard local stochastic volatility (LSV) model. Such a hybrid model concurrently utilises GPU and CPU processors to speed up the process by 30 times.

In production, Murex's clients create hundreds of accurate quotes and sensitivities in seconds instead of minutes, as seen in the standard LSV calibration. MX.3's LSV model supports several regional clients in their highly competitive FX structuring businesses.

Banks have also looked to strengthen risk-management capabilities for equity-linked structured products in the past year so that they can better manage their Greeks during stock market selloffs, such those seen in early 2022. Many of Murex's Asia-Pacific clients have benefited from MX.3's real-time portfolio management tool (RTPM) for their high volume, autocall businesses during such episodes in the past year.

The RTPM provides traders with instantaneous access to personalised monitoring dashboards with live position updates, comprehensive risk matrices and tailor-made risk measures.

In the past 12 months, Murex delivered upgrades to MX.3, such as the under-determined search curve calibration model to regional clients, to help them cope with managing the impact of steepening rates. It also developed a new IR volatility model, SABR-BANG, a framework for better extrapolation and constant maturity swap (CMS) fit.

RFR analytics

In the final stretch of the world transitioning to risk-free rates from the interbank offered rates (Ibor), Murex has done massive preparations for the large-scale adoption of RFR structures, including organisational changes to the rates-expert team and enhancements to its model validation methodology.

Murex also created an Ibor transition solution for client-made payoff scripts in the last 12 months. Its clients only need to add two lines of codes for the fallback.

A senior trader at a Japanese securities firm praised Murex's effort in the interest rates transition. "With a rich catalogue of RFR payoffs and analytics, MX.3 lets us respond to new market demands timely," says the trader.



Fanchao Zeng, Murex

The firm's out-of-the-box (OTB) catalogue is the largest in the market, comprising over 350 packaged payoffs, including all regional best-selling structures. Clients can create new products by mixing existing payoffs or scripting new ones in Python.

Seventeen Apac financial institutions already rely on Murex's non-linear RFR solutions.

Unwavering support

Murex has earned much praise from clients across the Asia Pacific region for its on-the-ground and attentive support amid rollouts for structured products solutions.

"Despite Covid-related operational constraints, Murex provided exceptional support," says Tang Yongfeng, China Minsheng Bank's head of system support centre. "Thanks to our partnership, the structured product rollout is a resounding success."

The Chinese bank has partnered with Murex for over 10 years and expanded its platform usage to all derivatives and structured products last October.

"This project allows us to streamline trading operations and consolidate market risk control. Murex's expertise in market-standard analytics and experience with regional and global regulatory requirements is crucial for us," says Li Jingwei, senior manager of the market risk department at China Minsheng.

Fanchao Zeng, product manager of structuring and analytics, Apac, at Murex, adds that one of Murex's key strengths as a structured products system provider is its strong on-the-ground expertise in the region, which has allowed the firm to develop an in-depth understanding of the local nuances of different structured products markets.

"Serving the structured product markets requires an in-depth understanding of each local market. That's why we have established a solid, on-the-ground presence," says Zeng. "Through close collaboration with our development teams, local market-specific solution packages are built, readily available for quick rollout. In the complex and ever-evolving world of structured product markets, our clients can count on us as a trusted partner."

The number of support articles based on user enquiries, issues, and usage guidelines, parts of MXknowledge Online service, increased to 15,111 in 2023, nearly nine times the number in 2020.

Looking ahead, Murex will continue rolling out its non-linear RFR structure solutions for regional clients.

The company is also tapping into the growing demand for capital-protected notes on the back of rising rates and market volatility. It anticipates an increasing number of clients adopting its structured deposit solution package in Apac going forward.

Specifically in India, one of Asia's fastest growing major economies, Murex plans to conduct dedicated structured product workshops with Indian clients, sharing insights on successful regional best-selling structures. ■