Case study

Banorte Evolves, Furthers Strategic Transformation through Key Solutions Implementations with Murex

In an increasingly complex regulatory and market environment, financial institutions that aim to lead must evolve beyond baseline compliance. They must leverage infrastructure transformation as a strategic enabler of profitability, resilience and balance sheet optimization.

Grupo Financiero Banorte, the largest Mexican bank, has undertaken a multiyear strategic transformation program. A critical driver of this program has been Banorte's implementation of the MX.3 platform from Murex.

Banorte's program represents far more than a technology upgrade. It constitutes a foundational enhancement of Banorte risk, pricing and balance sheet management capabilities.

Embedment of advanced global methodologies into the Banorte operating model strengthens its position as a market leader in financial risk management, capital efficiency and institutional sophistication within the Mexican banking sector.

This initiative aligns Banorte's risk, capital markets and pricing framework, with the highest international standards established by the Basel Committee, ISDA and the Banco de México / CNBV. Banorte has created a scalable infrastructure capable of supporting future regulatory and business growth.

Banorte's strategy has four pillars:

Capital optimization and shareholder value creation
Deploy advanced risk methodologies that better reflect the true economic risk of the balance sheet and trading portfolio. Enable capital efficiency, improved return on investment and more disciplined allocation of scarce balance sheet resources.

Pricing precision and commercial discipline
Embed all relevant economic and regulatory costs into trade pricing to ensure business lines transact at appropriate risk-adjusted returns.

Liquidity and collateral optimization
Enhance collateral mobility, margin efficiency and liquidity deployment through modern collateral and margining frameworks.

Regulatory conformity and supervisory credibility
Maintain proactive compliance with evolving domestic and international regulatory standards, positioning Banorte as a benchmark institution in prudential risk management.

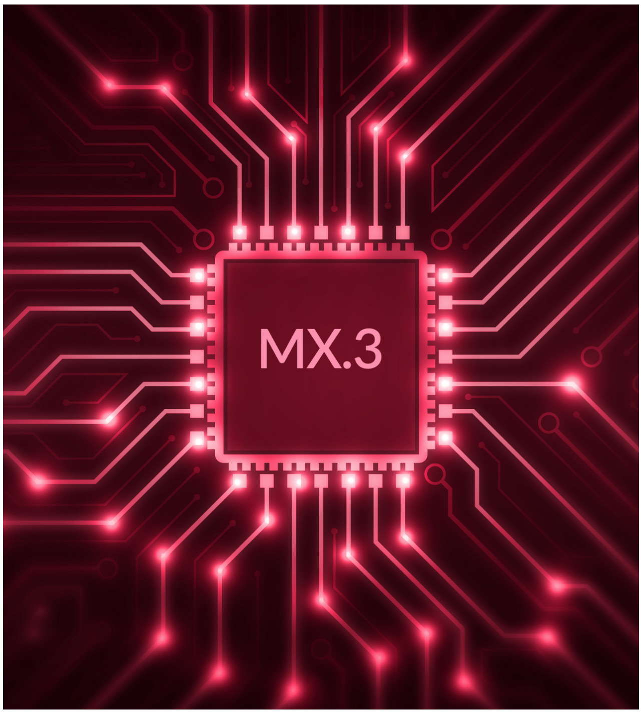
Banorte selected MX.3 as the strategic core infrastructure for its front-to-back-to-risk operations.

MX.3 is Murex's award-winning cross-asset platform. MX.3 business processes cover all asset classes and functions for treasury, trading and investment activities, including E/CTRM. The platform was selected for its:

- Integrated front-to-risk architecture
- Real-time risk aggregation capabilities
- Regulatory calculation engine flexibility
- Scalability for future regulatory frameworks
- Strong global adoption across G-SIBs and Tier 1 institutions

Through an upgrade-as-a-service model, Banorte ensures continuous alignment with industry best practices and accelerated adoption of future regulatory enhancements.

UaaS enables seamless business evolutions and strategic readiness with frequent, timely, on-budget MX.3 upgrades. UaaS shortens client validation activities, such as system integration testing and user acceptance testing phases, increases upgrade frequency and eliminates price variability risk.



Over the past five years, Banorte has implemented key Murex solutions and realized strategic benefits.

Fundamental Review of the Trading Book (FRTB)

Production deployment: March 2024

Capability implemented:

Deployment of FRTB-compliant trading/banking book boundary controls and advanced market risk capital calculations, which include:

- Trading vs. Banking Book boundary governance
- Jump-to-Default Risk (JTD) framework
- Residual Risk Add-On (RRAO) calculations
- Enhanced Sensitivities-Based Approach (SBA) infrastructure

Strategic value:

- Prevents regulatory arbitrage between books
- Improves governance over balance sheet classification
- Enhances capital sensitivity to actual trading risks
- Positions Banorte for future Basel III Endgame / local FRTB convergence

Real-time market risk monitoring

Production deployment: August 2024

Capability implemented:

Integrated real-time market risk infrastructure that supports:

- VaR / Expected Shortfall / Stressed VaR calculations
- Intraday sensitivity aggregation
- Real-time limit monitoring
- Pre-trade and post-trade "what-if" simulations
- Scenario and stress-testing framework

Strategic value:

- Enables intraday risk surveillance at institutional-grade standards
- Enhances decision-making agility
- Reduces latency between market moves and management action
- Strengthens limit governance and escalation framework
- Complies with local regulations

Capital Value Adjustment (KVA)

Production deployment: December 2024

Capability implemented:
Integration of KVA into XVAs stack to reflect the economic cost of regulatory capital over transaction life

Strategic value:
- Embeds regulatory capital costs directly
- Aligns front-office incentives with return on equity (ROE) targets
- Prevents underpricing of capital-intensive structures
- Improves risk-adjusted profitability attribution
- Enables strategic client segmentation based on economic returns

SA-CCR (Standardized Approach for Counterparty Credit Risk)

Production deployment: September 2025

Capability implemented:
Execution of full SA-CCR exposure methodology, including:
- Replacement Cost (RC) engine
- Potential Future Exposure (PFE) add-on calculations
- Netting set recognition
- Margin period of risk adjustments
- Collateral and CSA integration
- Trade-level exposure attribution

Strategic value:
- Potential optimization of counterparty credit RWAs
- More accurate recognition of netting and collateral agreements
- Prevention of capital overstatement inherent in legacy methodologies
- Enhancement of counterparty-level profitability analysis
- Critical enabler for capital-aware client pricing

SIMM / Advanced Collateral Management

Production deployment:
- February 2022 (international standards)
- January 2026 (Banco de México alignment)

Capability implemented:
Deployment of ISDA SIMM-based initial margin and advanced collateral management framework supporting:
- Sensitivity-based IM calculation
- Bilateral margin agreement automation
- Eligible collateral optimization
- Securities collateral substitution
- Margin dispute transparency
- Margin call workflow automation

Strategic value:
- Aligns Banorte with global uncleared margin rules
- Reduces systemic and bilateral counterparty risk
- Improves liquidity efficiency via non-cash collateral mobilization
- Reduces operational friction and valuation disputes
- Enhances competitiveness with international counterparties

Recouponing framework

Production deployment: January 2026

Capability implemented:
Periodic mark-to-market (MtM) reset/payment functionality for long-dated derivatives.

Strategic value:
- Reduces long-dated exposure profiles materially
- Lowers CVA / FVA / SA-CCR capital consumption
- Improves affordability of long-tenor hedging solutions
- Enhances client competitiveness in structured derivatives offerings

Wrong-way risk (WWR)

Production deployment: June 2026

Capability implemented:
Implementation of specific and general WWR detection and quantification framework including:
- Correlation-based WWR analytics
- Counterparty-risk factor dependency mapping
- Exposure stress overlays
- Conservative capital overlays / credit adjustments

Strategic value:
- Detects hidden concentration and tail dependencies
- Strengthens counterparty underwriting standards
- Prevents underestimation of tail exposure in stressed environments
- Enhances governance over concentrated sector / counterparty risks

Collectively, the Murex risk transformation program has enabled Banorte to transition from a primarily compliance-driven infrastructure toward a strategic balance sheet optimization platform.

Key enterprise-wide financial, risk management and strategic and commercial benefits are seen:

Financial

- Potential reduction in regulatory capital intensity
- Improved risk-adjusted pricing accuracy
- Enhanced ROE / risk-adjusted return on economic capital (RAROC) discipline
- Lower funding and collateral costs

Risk management

- Improved measurement precision across market and counterparty risk
- Stronger tail-risk identification
- Real-time surveillance capabilities
- Enhanced stress testing and scenario analysis

Strategic/commercial benefits

- Greater structuring flexibility for client solutions
- Improved competitiveness in derivatives products
- Better alignment between risk, finance, treasury and front office

ABOUT MUREX

Murex empowers sell-side, buy-side and energy and commodities institutions with enterprise-wide, cross-asset financial technology solutions that are available on-premises or as a fully managed cloud service.

MX.3, its cross-function integrated platform, has more than 60,000 daily users in 65 countries. The platform covers trading, treasury, risk, post-trade operations and investment management for private and public assets.

Combining advanced analytics and AI-driven capabilities with an open, extensible, future-ready architecture, MX.3 enables clients to trade and manage risk across markets, adapt to regulatory change, and operate more efficiently at scale and with control.
Learn more at murex.com.

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