

The collateral optimization challenge

The demand for financial institutions to pledge collateral has surged as the derivatives markets increasingly adopt central clearing. Higher collateral requirements have created a scarcity of eligible assets, while new regulations have introduced additional complexities in fulfilling margin calls. Consequently, moving to periodic intraday or real-time collateral valuation has become crucial.

Optimizing existing collateral has become a highly valued service, helping banks reduce funding costs and offering the potential for new revenue streams through bespoke collateral optimization services. These services, whether aimed at achieving savings for the bank or enhancing its appeal as a clearing broker, must be scalable, flexible, and adaptable to future regulatory changes. Additionally, they should real-time visibility into provide collateral inventory across all portfolios, ensuring efficient and effective collateral management.

The following case studies highlight how three leading financial institutions successfully addressed these challenges using ActiveViam's next-generation Atoti technology.

Introducing Atoti

Existing collateral systems were built for operational workflow processes and lack the intelligence to aggregate and optimize large volumes of complex and dynamic data. Typically located in the back office and across multiple silos, these systems increasingly fail to provide the real-time view across all asset inventories required for effective collateral optimization.

As a result, many institutions are seeking more powerful and innovative technologies, such as ActiveViam's Atoti, to achieve firm-wide inventory consolidation and collateral optimization.

Atoti features an in-memory, real-time aggregation and calculation framework that complements existing systems, delivering a dynamic collateral optimization layer for all users, whether in the back, middle, or front office.

ActiveViam's cutting-edge technology allows you to aggregate data from heterogeneous sources, integrate your own business logic and optimization algorithms, and build a bespoke, future-proof optimization framework.

Case Study #1

Creating New Revenue Streams by Offering Collateral Services

A global leader in investment management and investment services has launched a collateral service designed to help their buy-side clients manage collateral and counterparty exposures via a single web-based client portal.

This new service reflects the company's commitment to offering differentiating services to clients facing collateral scarcity and increased funding costs in the current regulatory environment. With increasingly demanding buy-side clients exploring new ideas and partners, the company invested in these innovative capabilities to create a competitive advantage and help clients better meet regulatory requirements.

By using ActiveViam's Atoti technology, the company consolidated complex collateral and asset inventory data from five different systems into a single unified collateral hub. Before deploying Atoti, clients found it difficult and time-consuming to gain a unified view of their collateral data, which was complex and scattered across multiple systems. As a result, clients had to sift through multiple Excel spreadsheet reports, making it a lengthy process to retrieve relevant information.

The multi-dimensional analysis capabilities of Atoti enable clients to access relevant information quickly and easily. Atoti offers clients a consolidated and transparent view of all their available collateral and all their collateral positions held within the bank. Consequently, buy-side clients can enhance their ability to manage collateral and counterparty exposures through a single portal.

Case Study #2 Reducing Funding Costs through Better Utilization of Securities

A large international bank chose ActiveViam's Atoti technology for inventory consolidation and optimization as part of a global initiative to implement a firm- wide collateral optimization process. This initiative aimed to achieve efficiency gains and diversify the bank's operations into the clearing broker business. Collateral margining had largely been cash-based and managed within product silos. Given the significant increase in margin call requirements due to new regulations, the bank sought a framework to better utilize their idle securities across the balance sheet.

Key objectives included aligning collateral management silos across product areas to realize efficiency gains and meeting functional requirements while leveraging existing legacy systems. Atoti was selected to automatically identify eligible fixed-income assets to cover initial and margin calls. By integrating multiple data inputs,

including the bank's inventory, client inventory, legal agreements, and market data, Atoti provides comprehensive visibility over both the bank's and clients' inventories. This enables the computation of the "cheapest to deliver" basket of assets for each margin call.

As a result, the bank significantly reduces its cost of funding. ActiveViam's non-intrusive technology seamlessly integrates with underlying systems, allowing the bank to leverage existing legacy applications, thus controlling costs and achieving rapid time-to-market. The real-time visibility into the collateral portfolio provided by Atoti also enhances the bank's ability to offer proprietary, value-added clearing services to clients.

By providing cutting-edge collateral services, the bank continues to offer valuable services to existing clients, attract new clients, and increase revenues.

Case Study #3

Achieving Efficiency Gains through a Central Collateral Trading Desk

A leading corporate and investment bank in the Nordic countries has chosen ActiveViam's Atoti solution to implement a central collateral trading desk. Previously, the bank's collateral management was fragmented across multiple trading desks, each managing its own asset inventory. Additionally, the bank maintained a central pool of assets to meet Basel III liquidity ratios, particularly the NSFR and LCR requirements. However, the bank lacked a consolidated view of available and pledged collaterals, resulting in suboptimal asset utilization.

This lack of visibility led to potential revenue shortfalls due to an overly cautious approach to asset utilization to maintain required liquidity ratios. The bank also faced challenges in obtaining an intraday view of collateral movements. The end-of-day (EOD) position reports for each desk did not provide real-time tracking of inventory changes, causing traders to borrow bonds or equities from the market when a collateral shortage was detected, instead of utilizing available assets from other desks. This situation resulted in higher collateral funding costs.

By implementing Atoti, the bank created an intraday, cross-asset inventory consolidating assets from various sources, including stock lending, fixed income, and equities desks. This enhanced visibility allowed significant cost savings through more efficient asset usage. For instance, Atoti provided accurate and timely insights into available collateral, detailing their locations and custodians, a crucial step for true optimization.

The Atoti solution also supported the establishment of a centralized collateral trading desk, delivering collateral services to the bank's trading desks and client organizations using the bank as their prime broker. Collateral managers utilized Atoti to retrieve all exposures to counterparties, identify eligible collateral in the inventory, determine the best asset classes to use, and eventually book them. The bank also plans to use Atoti as a centralized hub where CSA and implicit eligibility rules by counterparty can be documented and shared by traders and collateral managers.

Finally, full visibility into collateral enabled the bank to hold trading desks accountable for their PnL. A fee-based mechanism, based on the type and cost of assets used as collateral, is currently being investigated.

Key Benefits



Cross-silo collateral optimization



Consolidated view of inventory, collateral exposures and requirements



Flexible collateral analytics



Dynamic 'what-if' scenario analysis



Real-time alerts and monitoring



Rapid time-to-market



Non-intrusive technology that seamlessly fits into existing systems



Full ownership and control



About ActiveViam

Founded by industry experts, ActiveViam understands the data analytics challenges faced by financial institutions across trading desks, risk, and compliance. ActiveViam pioneered the use of high-performance analytics in finance, helping the largest investment banks, asset managers and hedge funds make better decisions, explain results with confidence, and simulate the impact of their decisions. ActiveViam's mission is to deliver train-of-thought analysis on terabytes of data in the most cost-effective way so clients can explain their results with confidence and model the scenarios that will optimize their business. ActiveViam specializes in risk data analytics for one of the fastest moving and most regulated industries with a presence in the world's leading financial marketplaces - London, New York, Singapore, Sydney, Hong Kong, Paris and Frankfurt.

For more information please visit: www.activeviam.com



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