EMPOWERING FRONT OFFICE AND RISK MANAGEMENT COLLABORATION THROUGH ADVANCED SOFTWARE SOLUTIONS

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Abstract

ActiveViam and UR-Risk have been successfully collaborating for a number of years delivering business value and regulatory compliance by providing solutions to the Front Office and Risk Management departments. In this article we look at how the joint approach addresses issues related to:

- Reconciliation of pricing models
- P&L reconciliation between front and middle offices
- Challenges around computing real-time intraday P&L using Taylor approximations
- Eliminating spreadsheet risk
- Complexity of introducing what-if scenarios and decision support tools to the front office.

Our team of experts at UR-Risk has led strategic initiatives for financial institutions worldwide in the creation and evolution of their risk management, supporting the communication and relationship with other areas including the front office. As part of the advice that we provided, it became clear that the effort and dedication of the financial and technology teams to maintain a coherent alignment with the front office was significant. This interaction often faces notable hurdles, stemming from disparate systems, different objectives, timing mismatches, and finally, different strategic visions. Considering internal management needs and current market behaviour, financial institutions navigate a complex and dynamic landscape. In this environment, efficient interaction between the front office and risk management has become crucial in addressing significant challenges.

Discrepancies in pricing models, difficulties in reconciling valuation metrics, and diverse communication timings often lead to operational shortcomings leading to inefficient decision-making. Front office often uses specific pricing models tailored for trading, focusing on market dynamics and profitability. On the other hand, risk management employs more conservative or regulatory-driven models for valuation and risk assessment. This difference in models leads to different valuations of the same instrument and as a consequence, discrepancies in calculated metrics such as sensitivities (Greeks) and P&L.

Ensuring consistency in price reconciliation across the front office and risk management represents a significant challenge, not only in terms of the models, but also in the accuracy and quality of the data, the integrity of historical data, the data points used for the evaluation of the instruments, and finally, the procedures and software solutions used for the whole life-cycle of calculations.

Even with all the complexities, UR-Risk has been able to implement mechanisms for guaranteeing the reception of all the data requirements, the quality of the data needed to produce accurate measures, and the creation of dedicated procedures (technical and human) to perform an adequate reconciliation of the final metrics. While this sounds incredibly complex, UR-Risk ensures this effort not only succeeds but actively drives the building of frameworks that deliver efficiency and real value.

To overcome these challenges, we've worked with our clients to build frameworks to enhance the integration and communication between the risk management and the front office and provide capabilities that offer benefits to the business. This is where UR-Risk's expertise in advisory services for the financial sector and ActiveViam's leadership on providing data analytics solutions can drive new levels of innovation and strategic growth. Our clients get unparalleled data insights and risk management capabilities required to face those challenges.

♦ ActiveViam ► RISK



Atoti

ActiveViam's flagship product Atoti is a high-performance data analytics platform that enables seamless integration and communication between the front office and risk management. Such a solution offers the following key benefits and capabilities:

Real-time data aggregation and consolidation

Atoti is capable of aggregating data from various front office systems (trading platforms, order management systems), market data feeds, and existing risk management systems into a single, unified view.

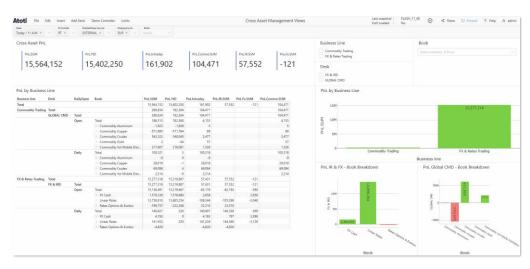


Figure 1 Atoti dashboard: everyone can see a consolidated view of the risks and positions

This eliminates data silos and ensures that both front office and risk management are working with the same, up-to-date information. For example, real-time aggregation of trade data, market prices, and counterparty information enables immediate calculation of risk exposures and P&L.

Intraday and real-time risk monitoring

Atoti enables real-time calculation and monitoring of key risk metrics, providing both the front office and risk management with an immediate view of the institution's risk exposure. This enables proactive risk management and timely intervention when needed. Traders can see the immediate impact of their activities on risk metrics, and risk managers can monitor the overall risk profile in real time.

Enhanced decision-making with what-if analysis

The ability to simulate the impact of different market scenarios on portfolios and risk metrics is invaluable for both front office trading strategies and risk management stress testing. Atoti is a collaborative platform that allows the front office to assess the risk implications of potential trades before execution, while risk management can use the same tool to conduct comprehensive stress tests based on realistic and traderinformed scenarios. Better decision-making should reduce risk and maximize returns. Another interesting use case is the "what-if" scenario analysis capabilities that are invaluable for both front-office trading strategies and risk management stress testing





enabling users to simulate the impact of different market scenarios on portfolios and various risk metrics.

Proactive limit monitoring capabilities provide real-time visibility into trading activities against predefined risk thresholds. This crucial feature provided by Atoti, ensures that both traders and risk managers have an immediate and accurate understanding of exposure levels, preventing potential breaches before they escalate.

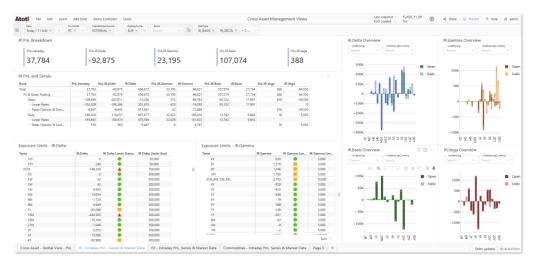


Figure 2 Atoti dashboard showing interest rate risk,P&L and limits. EUR.ESTR 1Y and 15M points are problematic and need to be investigated and fixed

The moment a threshold is approached or breached, alerts are triggered, notifying the business users for timely intervention.

Sign-off & adjustments

This operational workflow feature establishes a robust and transparent data governance framework across the front-office and risk management departments. Atoti's platform provides a structured workflow for identifying and managing discrepancies that can be routed for review by the business users in either the frontoffice or risk management, depending on the nature of the issue.

Metric explanation

On-the-fly aggregation capabilities of Atoti, provides a deeper understanding of key risk metrics with a powerful explanation of metrics feature, supported by seamless and interactive drill-down to the most granular level of data.



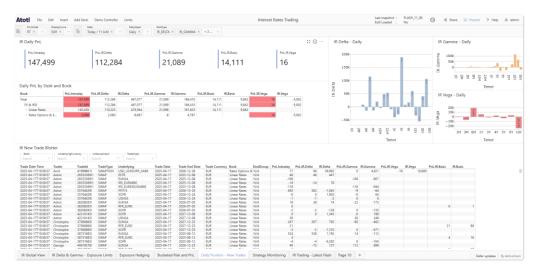


Figure 3 Atoti UI with risk and P&L summary and a real-time blotter showing new trading activity

This capability moves beyond surface-level figures, providing both front office and risk management with the ability to dissect complex calculations and identify the underlying drivers behind any given metric.

Reduce operational risk

Atoti significantly reduces operational risk by eliminating the perils of "shadow IT" and spreadsheet-based processes, allowing financial institutions to confidently demonstrate that decisions are made using complete and correct data. Atoti minimizes discrepancies and enhances transparency. Reducing operational risk leads directly to a lower cost of ownership for the firm.

One common scenario we've observed in the financial industry involves institutions grappling with legacy systems, often relying heavily on intricate, interconnected spreadsheets for critical data management and risk calculations. While seemingly convenient initially, this approach frequently leads to significant inefficiencies and introduces substantial operational risk. Imagine a scenario where a firm struggles with inaccurate P&L calculations due to manual data consolidation across several spreadsheets, leading to fragmented insights and inefficient analysis. This not only consumes valuable time but also exposes them to undetected errors, compromising the decision-making process.

The powerful, real-time capabilities of Atoti offers a transformative alternative, directly addressing and resolving these challenges. Atoti's seamless data aggregation, real-time risk monitoring, and robust what-if capabilities enable institutions to move beyond the limitations of manual processes and static reports. By providing a unified, dynamic view of risk, Atoti ensures unparalleled accuracy, speed, and transparency, turning operational challenges into strategic advantages. This proactive approach not only eliminates the inherent risks of artisanal processes within complex frameworks but also unlocks a new level of analytical depth and collaborative efficiency.

To discover how Atoti's innovative functionalities can enable your team and deliver these benefits, we invite you to explore the brochure.





Conclusion

In conclusion, the challenges inherent in the interaction between the front office and risk management can be effectively addressed through the implementation of innovative software solutions that provide real-time data, consistent frameworks, and enhanced collaboration tools.

Using real-time analytics and advanced what-if analysis, financial institutions can help their front offices make more informed decisions, leading to improved operational efficiency, better risk management, reduced exposure and enhanced regulatory compliance. Investing in a solution with such capabilities is not merely a technological upgrade but a strategic imperative for navigating the complexities of today's financial landscape and enabling a culture of collaboration and enhanced risk awareness.





About ActiveViam

ActiveViam is a fast-growing financial data analytics solution provider. Built for and trusted by leading financial institutions, ActiveViam delivers active intelligence for complex financial analytics. It combines unrivalled technology, continuous innovation and exceptional people to unlock the power of real-time and granular data at scale. Designed as a high-performance semantic layer, ActiveViam's flagship product Atoti, allows clients to implement built-in front office and risk business solutions while accessing customizable technology.

ActiveViam is present in the world's leading financial marketplaces with presence in London, New York, Singapore, Sydney, Hong Kong, Paris and Frankfurt.

For more visit activeviam.com or follow on LinkedIn

About UR-Risk

UR-Risk is a leading advisory firm specialized in creating and evolving risk management frameworks for financial institutions worldwide. Our team of experts leads strategic initiatives, enhancing the crucial relationship between risk management and the front office. In partnership with technology leaders like ActiveViam, we deliver solutions that build efficiency, ensure regulatory compliance, and drive real business value in today's complex financial landscape.

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