

A Major Global Bank's use of Alpha

Case Study

Empowering business users and meeting regulatory requirements

Business Challenge

A Major Global Bank has long depended on Alveo's data mastering solution to support its traded risk and scenario management requirements. In parallel, the bank had built many down-stream repositories

in-house for various functions including product control, stress testing and quantitative analysis. Unfortunately, this led to delays in delivering accurate analytics, prices and risk factors to the business. In addition to delayed delivery, the infrastructure running costs had become very high.

On top of the increasing operational challenges, the bank also faced increasing market data constraints as a result of new regulatory and business requirements including FRTB, TRIM and business user access to vetted market data. With challenges mounting, the bank decided to leverage its existing Alveo relationship to help address three main use cases:

1. FRTB market data management requirements
2. Compliance with ECB's Targeted Review of Internal Models ("TRIM")
3. Automating the proxy decisions for risk factors and improve business user access to market data

With these specific use cases in mind, the bank trusted Alveo to implement their highly scalable market data warehouse solution, Alpha. Not only was this solution best placed to meet these complex challenges, it also complimented the banks existing usage of Alveo's core mastering platform.

Addressing FRTB market data management requirements

FRTB comes into effect at the beginning of 2023 and well before that firms, including this global bank, need to plan for optimal data management compliance. This poses a significant challenge as most organizations lack scalable infrastructure to handle increased volumes of historical data for proxy measurement and modellability assessments. A failure to meet the required data volumes will directly impact data lineage and reporting accuracy.

To meet the FRTB challenges, Alveo's Alpha market data warehouse has been implemented to operate as the bank's repository of all historical and bi-temporal market data. Alpha allows users to view price data at any point in the past and replay scenarios and risk models using the values at any point. Alpha will also feed Risk Factors for modellability assessment and enhance the proxy selection process through automation.

The scenarios to test the risk models are also run in Alpha and then pushed downstream into Murex to run the VAR calculations. The risk models are run in an S3 bucket daily to track historical changes.

Comply with the ECB's Targeted Review of Internal Models ("TRIM")

Another pressing regulation the bank needed to address was the Targeted Review of Internal Models (TRIM). TRIM effectively spells out how the ECB assesses banks' internal models for credit, market and counterparty credit risks and general model governance topics including best practices in data quality management.

With that in mind, the bank needed to check data quality across the entire length of their time-series data; which is critical for identifying gaps in historical time-series and irregular spikes. In addition to data quality management, TRIM compliance requires having end-to-end data lineage; this allows banks to trace their use of price data throughout their reporting processes. The ECB is interested in the manual intervention and reasons why users touched the data and – in case of manual changes – documentation of the reasons behind changes. The ECB requires pre-certification of data flows and data lineage.

With the help of Alveo, the bank not only gained the ability to visualize data quality and data lineage processes transparently but also to view the linkages between these processes; allowing for a full picture of their data ecosystem.

Automating the proxying decisions for risk factors and improving business user access to market data

The final use case centered around operational efficiency and enabling business users with self-service access to market data. To enhance business user access, Alpha, which includes a REST API, facilitated integration with external libraries, data exploration and machine learning use cases.

To improve operational efficiency, the bank wanted to limit manual interventions by automating the proxy selection process. To help facilitate this requirement Alpha enabled the bank to automate the proxying decision for all risk factors using Spark as an open-source processing environment. The bank will then determine daily whether they have sufficient

internal trade data that can be linked to these risk factors to deem them modellable under FRTB rules. In case of insufficient internal trade data, a data request can then go out to an external data service to request additional information.

In conclusion

With Alpha, the bank has established a highly scalable Risk Factor repository that empowers a wide variety of users and ensures high-quality, fully traceable market data. Alpha and the existing Alveo solution in place allow the bank to bring market data analytics and data management closer together.

About Alveo

Alveo is the leader in market data integration and analytics solutions for financial services. Focused on optimizing data flows for business user self-service, we provide cloud-native data aggregation and data quality management that enables clients to easily access trusted data while maximizing their data ROI.

Through our managed services, we ensure that clients can smoothly onboard, prepare and validate data for use in operations, trading, investment management, pricing, risk, reporting and machine learning.

We service a global client base and our award-winning technology provides easy integration into business user workflows and a proven platform for advanced analytics. Through combining deep domain expertise with latest open-source technologies, we help financial institutions ensure high quality data, optimize market data cost and maximize productivity.



Contact us for further information

EMEA T: +44 (0)20 7743 0320
North America T: +1 212 445 1076
APAC T: +65 6408 0750
General Enquiries E: info@alveotech.com

 [linkedin.com/company/alveo-technology](https://www.linkedin.com/company/alveo-technology)
 twitter.com/alveotechnology

