IBM Analytics Banking



## Overview

#### The need

To support the front office and set appropriate trading limits, KeyBank's risk teams need a trustworthy and timely understanding of the bank's daily exposure to market and credit risks.

### The solution

Working with IBM, the bank has built an automated process that calculates key risk metrics overnight, giving risk managers an instant overview of current positions the moment they walk into the office.

#### The benefit

Provides instant insight into key risk measures by 7am each morning. This new process has cut hours from daily reporting processes, and freed several analysts to focus on their primary task: optimizing the analytics and processes that support smarter decisions.

# **KeyBank**

Starting the day with a full picture of market and counterparty credit risk

A bank's ability to manage risk and improve business outcomes depends on providing decision-makers with trustworthy and timely risk insights. For risk managers, this includes understanding what positions the bank has taken, which counterparties they have dealt with, and the impacts on key measures like value at risk (VaR). The faster they can assess the bank's total exposure and understand the key drivers, the better they can advise the front office on how to align activities with the bank's risk appetite.

The risk team at KeyBank, one of the largest bank-based financial services companies in the United States, knew that if they could complete their exposure calculations more quickly, they could seize an opportunity to play a much more active and valuable role in balancing risk and return throughout the bank's operations.

Don Schilling, Chief Market Risk Officer at KeyBank, comments: "The challenge was that our existing daily process for calculating, validating and reporting on key market and credit risk metrics required significant manual work. If we could get to the answers faster, we would be in a much better position to identify problems."

Early insight into key risk measures is the key to smarter decision-making in the middle office. "I can check my VaR on my iPad at home – and in two minutes I can either be confident that we're in a good position, or start to investigate if it looks like we have a problem," says Don Schilling, Chief Market Risk Officer at KeyBank.



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## Solution components

### **Software**

 IBM® Algorithmics® Integrated Market and Credit Risk

## Fine-tuning risk management

KeyBank decided to re-engineer its risk calculation processes, and its first step was to upgrade its risk modeling platform to the latest version of IBM® Algorithmics® Integrated Market and Credit Risk. This gives the bank's risk analysts access to advanced reporting capabilities, allowing them to drill down into the previous day's data and quickly identify how individual transactions are impacting results. KeyBank also worked with IBM to introduce new counterparty credit risk analytics, which helped the bank meet new compliance requirements for credit risk management within a very aggressive timeline.

The new market and credit risk analytics platform integrates data from four major systems and over a dozen other sources, and each evening performs millions of calculations on more than 60 different types of financial instruments.

Don Schilling comments: "The upgrade itself was challenging: our first trial run of the daily batch calculation process took 36 hours to complete. That's where IBM's expertise really became important: they helped us identify bottlenecks and hone the process until we got it down to about four hours. It shows what you can achieve when you have a great team and a technology partner who is really committed to your success."

Tim Repicky, Market Risk Analyst at KeyBank adds: "Another thing that really helped with the speed of the implementation was the breadth of capabilities that IBM Algorithmics software offers. It seems daunting to try to support more than 60 types of instruments, but the solution was able to handle all but a couple right out of the box, which really cut down on the amount of customization we needed to do."

## Overnight insight

With the solution in place, KeyBank's risk team is in a far stronger position to meet the needs of the business. Instead of several analysts working to calculate the bank's total exposure to market and credit risks, the results are calculated overnight and ready by 7am every morning.

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At their morning meeting, the risk team identifies whether they need to make any amendments as a result of late or incorrectly entered transactions. Running the analysis again takes less than an hour, and the revised figures can be redistributed to the business before 9.30am.

Tim Repicky explains: "Instead of reviewing the results and supplementing them with a lot of spreadsheet-based calculations, our analysts can now get on with their real job – finding smarter ways to optimize our risk models and provide better risk intelligence for the front office."

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"IBM is helping us to run a business that is much more risk-aware. Our teams can make smarter decisions, based on a timely understanding of our exposure, which helps drive better results for the entire bank."

 Don Schilling, Chief Market Risk Officer, KeyBank Don Schilling adds: "Stable and automated batch processing has made an amazing difference to the way we work. We love the flexibility of being able to rapidly re-run our risk position mid-day with an amendment batch run."

## Focusing on the bigger picture

By eliminating the need for manual, spreadsheet-based work, the solution also reduces the risk of error, increases transparency, and boosts confidence in the results. The transparency of data and results helps KeyBank to demonstrate the high level of control over data and processes that banking regulators increasingly demand.

Don Schilling concludes: "We now have a platform that gives us both the time and the tools we need to move risk analytics forward at KeyBank. We have a lot more time to spend on activities such as stress testing, backtesting and refining our historical replays. We now have a calculation engine that can be leveraged as we build out complex counterparty credit risk measures such as wrong-way risk and CVA VaR.

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## About KeyBank

KeyBank is the principal banking subsidiary of KeyCorp (NYSE: KEY), one of the largest bank-based financial services companies in the United States, with assets of approximately USD 93.8 billion. It provides investment management, retail and commercial banking, consumer finance, and investment banking products and services to individuals and companies throughout the United States and internationally.

To learn more about KeyBank, please visit key.com

## **About IBM Analytics**

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