



RiskCare develops VaR system for new bond trading

To diversify its operations into convertible bond trading, Cater Allen required a Value at Risk (VaR) system that could be further extended to other product types.

Background

Cater Allen International Limited (CAIL), the specialist trading subsidiary of Abbey National Treasury Services plc (ANTS), decided to diversify its operations into relative value Convertible Bond trading, taking advantage of a niche market opportunity.

To launch this new business unit, a trading mandate and a VaR system were required that would support the newly traded products and instruments.

After the initial phase CAIL realised that they could extend the Value at Risk system to other product types within the business to give an overall correlated VaR figure.

Brief

The VaR system had to facilitate a diversified trading operation, coping with the variety of trades involved, convertibles, treasuries, futures, FX spot, repos, reverse repos, equity stock and stock borrowing. The system also needed to employ CAIL's own analytics and be fully integrated with the trade processing systems within three months

The system had to conform to in-house software standards to keep costs to a minimum and ensure that the system would be quick to develop as well as easy to support and enhance.

For such a multi-phased project, CAIL recognised that it required an external technology partner that could offer flexibility, continuity and expertise in both the financial and technical aspects of the project.

What we did

- RiskCare developed a fully functional VaR historical simulation system, later extended business wide
- Provided efficient tools to drill down and analyse various risk components
- System avoided manual processes for operation and maintained a high level of user information to detect data problems and draw attention to significant results

“RiskCare demonstrated that they could provide highly skilled personnel with the breadth of knowledge including the very specialist skills we required for the Convertible Bond analysis.”

Mark Anderson,
Financial Director, Cater Allen International

“RiskCare’s flexible approach to resourcing meant that for different aspects of the work (e.g. web enabling) RiskCare were able to provide different consultants with the relevant skill sets, thereby considerably reducing time-to-market.”

Roger Neath,
Head of Systems Development, CAIL

Project

To gain the necessary trading mandate from ANTS Risk Committee, RiskCare provided an independent assessment of the risks involved and advised on suitable VaR methods. Despite CAIL already being two months into a three-month long trading simulation, RiskCare provided an extensive report into the relevant VaR methodologies within three weeks.

The recommended VaR system used a new historical simulation and back testing system, backed up with detailed analysis of the three months of back testing data. Crucially, the design encapsulated the rest of CAIL's business into the same VaR system to provide a framework for future requirements such as the addition of Monte Carlo and stress testing analyses.

The VaR system developed by two RiskCare engineers, one for the analytics engine and the other for the automated feeds, front end and reporting tool, had to conform to CAIL's internal software standards.

A second phase extended the system to provide a company wide correlated VaR system and reporting function that incorporated equities and CAIL's derivatives book, allowing traders to use the new derivatives instruments as another hedging tool.

Lastly, a web enabled-front end, using ASP technology, gave access to the system to users in London and New York.

Technologies

- Historical simulation and back testing VaR system to cover a wide range of interest rate and equity products
- Analytics engine (C++, SQL)
- All intermediate computed results were stored in a database and VB and Excel reporting tools created to display them meaningfully
- Automated feeds and data quality checks were fully integrated into the system

RiskCare view

Our specialist team enhanced CAIL's internal IT capability, allowing them to focus on their core business and execute their first live convertible bond trade on schedule.

Flexibly providing different skilled consultants we added value to the project by web-enabling and extending its original scope.

RiskCare’s consultants help investment and asset management organisations get more from their technology.

Talk to us and take a fresh approach to your next technology project.
Call +44 (0)20 7489 2900 or visit www.riskcare.com

