

Razor positions Treasury Corporation of Victoria at the forefront of risk management

After a comprehensive international search, the Treasury Corporation of Victoria (TCV) chose Razor Risk Technologies to provide its new risk management solution. Following the initial implementation period, the Razor solution has delivered significant improvements in the efficiency and transparency of TCV's Value at Risk (VaR) calculations, supporting its rigorous approach to market risk management. Razor's adaptable and flexible solution provides TCV with a holistic and strategic risk management platform that meets client, regulatory and prudential requirements now, and into the future.

Challenge and Objectives

As the State of Victoria's central funding authority and financing advisor, TCV plays a central role in the prudent management of the State's financial assets and the State's capacity to raise funds in financial markets. The borrowing requirement of the State and its agencies has grown in recent periods and is forecast to grow further in the medium term.

To effectively manage the exposure to financial risk inherent in the Corporation's business operations, TCV has a proactive and robust risk management framework. When a strategic review raised concerns about the capability of TCV's existing market risk system to meet its new business requirements, the Corporation went to the market to find a new market risk system.

Fundamental to the way TCV monitors and controls market risk is the calculation of VaR. This calculation is critical as VaR is a vital component of current "best" practices in risk management. The VaR measure effectively highlights on a daily basis an institution's potential loss on its portfolio over a specified time period. TCV manages market risk within a defined VaR parameter as one of the key controls approved by the Board, supplemented by scenario based modeling and stress testing.

TCV's three main business objectives for the system replacement project were to:

- significantly improve the speed and efficiency of calculating and analysing VaR to provide TCV management with more timely and transparent market risk variations; and
- provide better capabilities for drilling down to analyse the drivers behind variations in VaR, providing management greater confidence in the numbers produced and an improved ability to model the impact of certain events
- provide "what-if" or portfolio movements simulation capabilities to assist with the proactive approach to limit management.

Solution

A comprehensive international search identified a shortlist of leading market risk vendors to participate in a tender selection process. Whilst each vendor was evaluated according to its ability to meet the system requirements (see sidebar on back page), TCV considered the implementation plan, the strength of the support and maintenance arrangements and the vendor's track record as part of the overall selection process.

At the conclusion of this international selection process and following a pilot phase, TCV selected Razor Risk Technologies' risk management framework, Razor, as the Corporation's new advanced risk solution. Razor was selected because it offers the greatest level of adaptability to support growth; it has the speed of performance to provide the timely and relevant market risk analysis to meet current requirements; and its analysis can be extended to include future needs such as CVaR, Earnings at Risk, Risk Adjusted Performance Measures and Economic Capital - all potentially available within the one Razor framework. TCV's choice was also based on its confidence in the long-term success of Razor in enhancing its functionalities.

“Choosing Razor was a strategic decision for TCV. While we looked at a variety of options, Razor was ultimately selected because it offers the greatest level of adaptability to support growth; it has the speed of performance to provide the timely and relevant market risk analysis to meet current requirements; and its analysis can be extended to include future needs such as CVaR, Earnings at Risk, Risk Adjusted Performance Measures and Economic Capital - all within the one Razor framework.”

Mark Engeman, Deputy Managing Director and Corporation Secretary, Treasury Corporation of Victoria

Why Razor?

Razor can provide a holistic view of risk, enabling a financial institution to measure and manage the total exposure of all its activities across the enterprise. The fact that Razor can be a multiple-risk and cross-asset risk management solution that can easily be adapted to suit individual risk needs and appetites, was appealing to TCV.

As market risk calculations are so critical to TCV's day-to-day operations, it was critical that the chosen system contained a robust and flexible market risk module. Razor's market risk module is fully integrated with its credit risk and limit management modules, which are connected to a single trade repository, enabling integrated market and credit risk management if required. The module provides the Corporation with robust quantitative market risk measurement, including simulation of the portfolios, taking into account dynamic portfolio changes, comprehensive stress testing, back testing and scenario analysis. A team of experts from TCV's Risk and Performance Measurement Division and Razor Risk Technologies were involved in the implementation phase of the market risk module. To ensure a successful implementation and smooth transition, Razor and TCV's previous market risk system were run in parallel before the full conversion to Razor.

The overall implementation consisted of three phases. The first focused on individual product valuations and curves, the second on portfolio values and the third on risk analytics. Implementation was successfully completed in just over 12 months and the feedback from users has been very positive.

By implementing Razor, TCV was able to reduce the time taken to calculate End of Day (EOD) VaR by approximately 88%, a vast improvement. TCV's management also appreciate the added bonus of being able to easily extract information from Razor to use in a daily EOD VaR report sent via SMS, allowing them to understand in as close to real-time as possible what their risk level is, and take any appropriate action in a timely manner. Following the economic downturn, VaR has generally been much more volatile and TCV has found that Razor's superior drill-down capabilities enable more efficient investigation of the underlying sources of this volatility. The "what-if" functionality is also particularly valuable in modelling the impact on VaR of certain events.

Return on investment

Razor has significantly improved TCV's market risk management and control capabilities, and will act as a strategic platform to support the Corporation's future risk management plans.

About Treasury Corporation of Victoria

The Treasury Corporation of Victoria (TCV) is the State of Victoria's central funding authority and financing adviser in Australia. TCV's overarching focus is the delivery of financing outcomes that are beneficial to, and protective of, the interests of the State. The Corporation achieves this by delivering three core competencies to the State and State-related entities. These are:

- loans and financing services
- advisory services
- investment services

These services are tailored to suit the specific needs of TCV's clients. TCV issues Victorian government guaranteed debt to fund its provision of loans to the state and participating authorities.

“ We were impressed with Razor Risk Technologies' commitment to work with us to meet our business goals and make critical improvements to our risk management systems. The partnership that we have developed with Razor Risk Technologies, together with Razor's inherent adaptability, gives us a high level of confidence in the solution's ability to support the Treasury Corporation of Victoria's future risk management needs.”

Warren Murray, General Manager IT, Treasury Corporation of Victoria

“ Razor has significantly improved the speed and efficiency of calculating and analysing VaR, ultimately enhancing the Treasury Corporation of Victoria's market risk management and control capabilities.”

S.Ram Doss, General Manager Risk & Performance Measurement, Treasury Corporation of Victoria

TCV's high level requirements for an advanced market risk solution met by Razor

Risk Analysis

- A comprehensive market risk model, incorporating VaR and other leading best practice methodologies
- Capability to support risk benchmarks and measures
- Support for comprehensive stress testing, back testing and scenario analysis
- Comprehensive drill down capabilities in terms of rate and transaction events
- Ability to run real-time incremental VaR for pre-deal checking and position analysis using EOD rates with rate adjustments as required by the user
- Appropriate prudential accreditation

Valuation

- Full instrument coverage for current and planned instruments, using a consistent approach
- Support for TCV's existing revaluation model
- The provision of a valuation engine
- All user interaction via a GUI

Operations and Technical

- Utilisation of the existing TCV database in line with the forward consolidation strategy for a single controlled database
- Flexibility and automation of reporting
- Ability to produce scheduled automated EOD reporting
- Design flexibility to pre-empt future requirements
- Strong maintenance and support arrangements

About Razor Risk Technologies

Razor Risk Technologies is a leading provider of risk management technology and consulting solutions to financial institutions worldwide.

Razor Risk Technologies' award-winning 'Razor' framework provides near real-time and pre-deal calculations that enable management to view their total exposure to individual entities on one consolidated platform.

Clients use Razor's advanced analytics and scenario calculations to achieve best practice in managing risk exposures for credit, market and liquidity risk within a single application.