

From strategy to tactics

Effective tactical use of risk management information has long been an aspiration of many organisations, but technical obstacles have stood in the way. In this third of four articles on integrated credit risk management, David Rowe argues that the reality may finally be within reach

The risk implications of business decisions came to the forefront in the 1980s. Then, Bankers Trust pioneered the use of risk-adjusted return on capital (Raroc) instead of simple return maximisation as a strategic decision tool. This was driven by the recognition that market perceptions of a company's risk played a significant role in determining equity valuations. By the early 1990s, Raroc, or some variation thereof, had become widely accepted among financial institutions as the basis for making strategic investment and other resource allocation decisions.

Needless to say, the occurrence of huge and unexpected trading losses starting in the mid-1980s reinforced the focus on risk as an important management consideration. A common mantra was that: "Risk management is an essential core competency for long-term success." Chief risk officer became a common corporate title. Large and complex systems for gathering data and evaluating their risk implications were deployed along with staff to review and act on the results.

The role of Raroc is clearly strategic, guiding senior management's choice of new investment projects and business expansion plans. Risk oversight could be thought of as tactical, but it is really a means of enforcing strategic decisions on the limits of a firm's risk appetite. Beyond compliance with absolute risk limits, most traders still strive to maximise gross trading profits, which usually continues to be the basis for their performance evaluations. To date, risk information rarely exerts a pervasive impact on the day-to-day decisions involving with whom to do business and on what terms.

Obstacles and potential solutions

Successful deployment of credit risk information for tactical decision support requires overcoming three obstacles:

- Timely assembly of data from numerous relevant source systems.
- Broad access to what-if capabilities by thousands of account managers and credit officers.
- A flexible environment that allows continuous extension and enhancement of



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the system as circumstances change and improved analysis becomes possible.

Fortunately, a number of technological innovations in the past five to seven years offer hope for slow but steady progress in overcoming all these obstacles.

The explosion in global wide-area network (WAN) capacity is one important element. Ten years ago, the cost and availability of WAN capacity was a major constraint on the design of global risk management systems. Today, that constraint is much less severe. When residential broadband access finally takes off, driven mainly by demand for streaming video, the communications capacity constraint on enterprise risk management systems will effectively disappear. In addition, middleware has matured to the point that bridging disparate operating systems and network protocols can be done consistently and reliably.

XML-based standards play a dual role. First, they facilitate extensible self-describing messages for transmission of transaction details, life-cycle events, market prices and other raw data needed for risk analytics. Obviously, fulfilment of this potential must await development of industry standard se-

mantic protocols such as Financial products Mark-Up Language, but these efforts are actively under way and are making steady progress. XML also enables the increasingly sophisticated and configurable presentation of results on the end-users' screens. Most importantly, it does this without the need for sophisticated desktop clients, which greatly simplifies the upgrade and maintenance process. All that is needed is a standard internet browser on each user's desktop for new features to appear automatically as they are implemented centrally.

Object-oriented programming tools facilitate deployment of improved analytics based on reuse of tested components where appropriate, thereby simplifying the unit and regression testing processes. In addition, parallel and grid computing technology opens up new processing capacity. This can be combined with recent analytical advances in approximating the results of computationally intensive Monte Carlo simulations. Taken together, these offer promise for bringing the cost of the greatly expanded analytical processing required for tactical decision support down to commercially acceptable levels.

How far and how fast?

I am struck by an interesting aspect of the evolution of risk management over the past 30 years. Often two or three factors needed to be in place before a new trend took hold. For example, modern portfolio theory began in the early 1950s with the work of Harry Markowitz. It was not until sometime in the 1970s, however, that computing power became sufficiently cheap and plentiful to make the theory a practical investment management tool. Much the same is true today with regard to tactical use of risk management information. Most of the necessary analytics and technology is already available, but much detailed work is still required to make the potential a reality. I believe we will see a few industry leaders making practical strides in three to five years. In 10 years, tactical use of risk information is likely to be common, and in 15 years it will be routine. ■