

# Keep it simple

Risk managers seek perfection in a system for calculating their risk exposures. Understandable, says David Rowe, but they shouldn't forget that sometimes the most workable solutions lie in the simple things

It's all too easy for risk managers to let the perfect be the enemy of the good. Sometimes, they can insist on analytically sophisticated and seemingly precise risk estimates when the underlying process is too complex to support such an approach. In estimating market-driven credit exposures, in my view, this is a common failing.

A system that, for example, can perform consistent long-term Monte Carlo simulations of all products, including exotic options, spread risk, basis risk, commodity derivatives, equity derivatives and credit derivatives would be a huge undertaking. Faced with such a daunting task, the response too often is to stick with mark to market plus formula-based add-ons in the spirit of the original Bank for International Settlements rules for risk-based capital calculation.

A far more sensible approach is to accept that 90% of the risk can often be simulated effectively, with 10% of the effort. This confines the application of formula-based assessments for pre-settlement credit exposure to a small portion of the portfolio. Then, cost-benefit analysis can be applied to decide which of the remaining product types should have priority for inclusion in the core simulation process.

## Operational risk

A similar process may be at work in the area of operational risk. Considerable time and thought are currently being devoted to this issue. Much of this is directed towards developing measures for operational risk that are similar to the potential loss estimates familiar in the market and credit risk arenas. While this kind of research has an important place, it may distract us in the short run. I believe the initial gains in controlling operational risk will come from much less analytically elegant initiatives.

It is quite true that, one way or another, many of the major disasters of the past several years can be attributed to operational risk rather than market or credit risk. The failure to separate trading and back-office responsibilities at Baring Brothers is an obvious example. Very often these operational risks arise from an unavoidable tension in any competitive environment. For publicly held companies, the pressure to meet quarterly earnings expectations is immense. Obviously, keeping costs under strict control is an essential requirement for success. This can lead to pressure to combine duties and economise on staff, especially in small trading locations where specialisation can be particularly expensive.

Part of the answer is for auditors, risk man-



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agers and regulators to insist on certain non-negotiable standards, such as separation of trading and back-office functions. If the cost of these cannot be justified in a given location, the only option should be to stop trading rather than continue to do business without the proper operational controls in place.

## Measuring operational stress

Unfortunately, fixed black-and-white rules provide only part of the solution. Many times all the formal structural requirements can be satisfied while operational risks remain dangerously high. This usually happens when the volume or complexity of work overwhelms the operations staff available to perform it. This may result from an increase in trading volumes or the addition

of new and complex transactions without a commensurate increase in the number or skills of the support staff.

It also can result from a loss of existing staff and the special operational knowledge they possess. Even if total head count is maintained via replacement hires, there can be a significant period of vulnerability as new staff acquire the specialised insights needed to meet their responsibilities. In my experience, those closest to the day-to-day operations are well aware when the fabric of the organisation has been stretched dangerously thin. The problem is that they seldom have sufficient authority over resources to address the situation themselves. Generally, such authority rests two or three levels higher in the organisation. The difficulty is how to separate well-founded requests for additional and better-trained staff from the generalised pleading for more resources that represents the usual background noise of organisational life.

An important tool for trading and risk managers in this situation is to maintain consistent, but not necessarily highly complex, operational stress measures. On the processing load side, examples include the number of unmatched confirmations requiring investigation, the number of failed trades, the number of trades on the books requiring special handling (classified by the frequency of manual intervention needed over their life cycles) and the frequency with which incorrect trade data invalidate initial valuation and/or risk reports.

On the resource availability side, these measures can include the number of first-line operations staff, their average years of total experience and their average years of experience with one's own firm.

Another very valuable source of information is a carefully maintained record of the total hours spent on the job by each member of the operations staff. When average daily hours get out of line, either in total or for individual staff members, this is a reliable indication of trouble brewing. Either more staff resources are required or the sources of operational stress need to be reduced. There may be a reluctance to do the latter, as often this arises from complex trades that are among the most profitable.

Failure to address the issue one way or the other, however, is to shirk senior management's responsibility to balance profit against appropriate risk controls. An even worse failure is not generating the information needed to identify the existence of operational stress in the first place. ■