

Bankers & supervisors prepare for operating risk capital charges

In 1998, an international team of bank supervisors reported that awareness of operational risk as a separate risk category was relatively low at major banks. That began to change for bankers after June 1999, when the powerful Basel Committee on Bank Supervision released a reform proposal that would have added an operations-risk-weighting factor to banks' regulatory capital ratios. Then, in April 2000, bankers' awareness hit orbital levels when a draft committee report referred to such measures as fees, commissions, gross interest income, transaction values, volumes, assets under management, and value of securities in custody, as potential standards for capital charges in certain business lines.

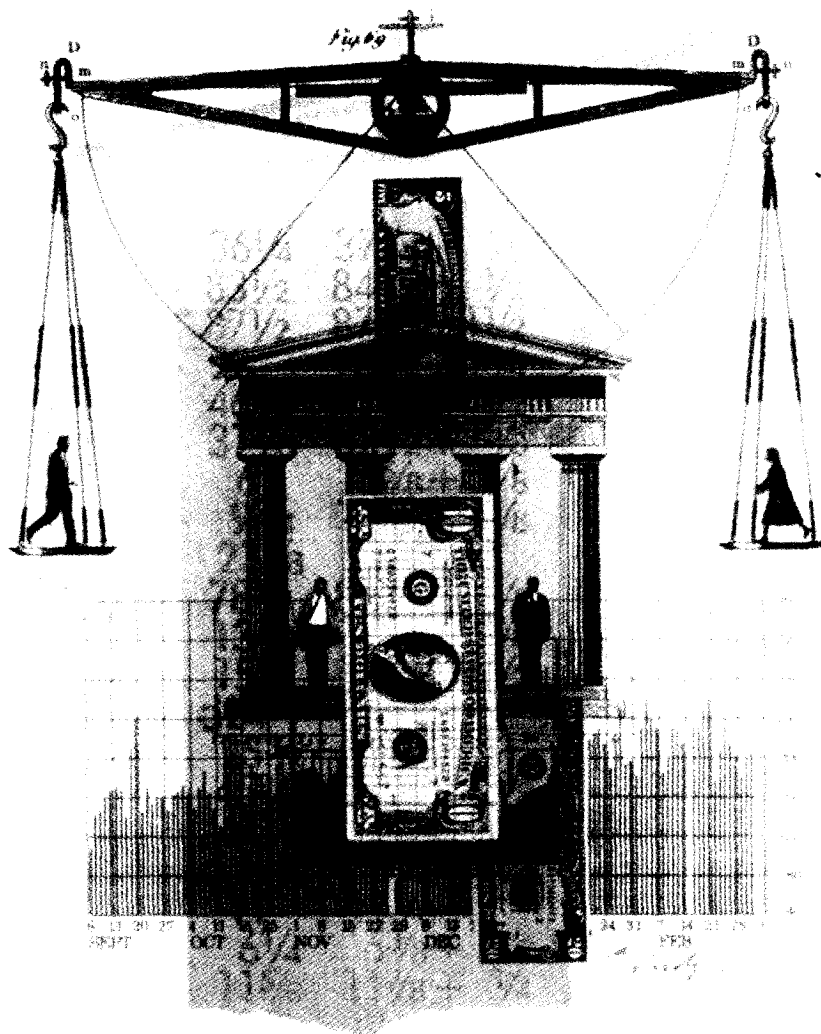
Bankers and their trade groups quickly mobilized to protect the non-interest revenue sources built up over decades in defending against encroachments from nonbank competitors. But they had a long route to travel.

Organizing for "OpR" management

Few banks in 1998 kept analytic records of their operational losses and causes. Any data that existed was held in the business units, with oversight of operational risk performed at a high level by the banks' directors, management committees, or audit committees. At about half the surveyed banks, an internal Operating Risk (OpR, in Basel committee-speak) monitoring role was filled either by a risk manager or by a committee, such as a product review committee. In some banks, the financial controller, chief information officer, or internal auditor took on this role. Researchers took this lack of a formal infrastructure as an indication of the immaturity of the discipline. But then, it began changing rapidly.

Today, the locus of responsibility for OpR measurement and

By Ed Blount, contributing editor, and executive director, ASTEC Consulting Group, New York, N.Y., and Burlington, Vt.



monitoring has become far more identifiable at large banks. According to the Risk Management Association, several of its members have recently started chief risk officer positions, including Bank One, Citibank, First Union, Fleet Boston, and Royal Bank of Canada. This is often a senior level position, with reporting lines up from the chief credit officer and the insurance divisions. Among their challenges, says Nick Hayes, RMA director of member relations for global financial institutions, are the creation of institution-wide operating loss databases and the development of mitigants for operational risk.

To help their members organize properly and prepare for the allocation of operating risk-capital charges, members of the RMA, British Bankers Association and International Swaps and Derivatives Association had commissioned a 1999 survey by PricewaterhouseCoopers. Released in February 2000, the study identified two kinds of operational loss events: (a) frequent, relatively low-cost experiences, such as write-offs from reconciliation failures and breakdowns in cash operations or payment systems; and (b) infrequent catastrophic events, the kind often reported in the media, especially when the institutional victim declared bankruptcy.

Most banks surveyed in 1998 said that not only was their tracking of operational risk at an early stage, but their metrics were very primitive. Only a few had formal measurement systems. However, even at that point, there was movement towards the use of qualitative risk factors and subjective assessments. Among these were internal audit ratings; generic operational data, such as volume, turnover and complexity; and data on quality of operations such as error rate or measures of business riskiness, such as revenue volatility. These are today being translated by bankers into grades, like audit assessments, to create a set of factors and variables that measure and model business unit risks.

Organizing to model swap risk

In October 2000, the International Swaps and Derivatives Association (ISDA) published a suggestion on methods of qualifying internal models. ISDA argued that qualitative criteria should be a mandatory, not optional, factor in any regulatory appraisal of operational risk management. The trade group was motivated by recognition that the industry's ability to manage operational risk, as well as its supervisors' acceptance of those management techniques, is at a primitive and dynamic stage. Consequently, ISDA members can see both opportunity and danger in the capital reforms ahead.

Bankers' need to hedge operational risks could someday create a busy market for derivatives dealers. Yet, any capital charge linked to an overly simplistic standard, such as notional values, might not only kill that new market, but could also stagger the entire swaps sector. Comparable dangers exist for other financial services. Either the basic proxies for risk must be fairly sophisticated or there must be a straightforward route for bankers to have their internal hedging models accepted by regulators for capital calculations.

By asserting the importance of qualitative factors, smaller ISDA members are laying claim to the same treatment they expect would be afforded to bigger firms. (Model acceptances were restricted to large banks by capital regulators in the original reform draft.) In ISDA's view, the ability to use internal models for capital-setting should be based on a bank's sophistication, not its size. Therefore, "the primary issue to address is what qualitative standards can be defined as the operational risk

prerequisite criteria for selecting a quantitative technique" [original emphasis] for determining capital requirements.

Premature effort?

Threshold criteria for acceptance of internal models will be critically important from a competitive standpoint. ISDA expects that "the more sophisticated approaches will remove the need for, or reduce the size of, the capital buffer which is inevitably required in the less sophisticated approaches." Obviously, bankers will be motivated to use more sophisticated approaches if their capital requirements are lower. This will stimulate the market for OpR hedges, but it will develop only if supervisors accept the dealers' risk models. ISDA explains that it will be necessary for any sophisticated bank to maintain its control structures and high quality internal loss event databases.

As pointed out by Richard Metcalf, ISDA associate director for Europe, "Firms do already have control structures in place. The challenge is therefore not to create them but to assess their effectiveness." These acceptance tests for the controls and database will impose a nontrivial burden of subjectivity upon supervisors. "What is new in OpRisk is not the risk, nor the management, but the attempts to quantify it and to try and embed that quantification into a regulatory capital charge," says Metcalf. "Many firms continue to have deep disquiet at these attempts to derive a regulatory capital charge, judging them to be at best premature."

ISDA proposes certain characteristics that members believe would make the supervisory acceptance tests successful, but the trade group does not recommend a

specific set of criteria. Moreover, ISDA also suggests that third parties, such as consultants or external auditors, could create such an assessment. A self-assessment might also be possible for the institutions themselves. To provide further guidance to supervisors, the ISDA study, as well as the study with RMA and BBA, suggested organizational structures, policy recommendations, and risk management processes as the key components of operational risk management.

Evaluating e-banking's risk

Internet-based financial services are also likely to be influenced greatly by new charges for operating risks. The same kind of interdependencies that will surface in any swap dealer's risk model will also invite review during an analysis of operating risk in electronic commerce. As Federal Reserve vice-chairman Roger W. Ferguson, Jr., pointed out in an October speech at the Financial Services Conference 2000, "Many of the services that banks are attempting to automate currently are 'joint goods'—that is—the production and consumption of the product or service depend on the inputs or behaviors of many players outside of the bank and even out-

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**—Richard Metcalf
International Swaps and
Derivatives Association**

side of the financial industry... Many Internet banks have discovered that they are using any savings in 'brick and mortar' operating costs to pay 'bounties,' or fees, to other Internet sites that refer new customers and to operate call centers to field the customer inquiries that invariably arise." Just as the costs are shared across products and customers, so also are the operating risks.

The interdependencies in e-banking consortia create a danger of linked operational breakdown in the product delivery chain. If one bank relies on another to help deliver on its operating commitments to customers, the focus of operational risk shifts outside the first bank. If that second bank uses a systems subcontractor for support in a critical area, a very likely possibility in this new era of outsourcing, then the focus moves even further away from the first bank. Will the first bank's operational risk model consider the second bank's subcontractor? Will any bank's model consider each bank's exposure to the same internet service providers, web portals, or subcontractors?

Consider another plausible scenario. Suppose the two banks, each with different national supervisors, both buy operating risk hedges from an ISDA member—a derivatives dealer which is a subsidiary of a bank located in a third country? How will the operating risk model of any bank account for these exposures?

Operating support agreements

Part of the answer to sharing risks based on bank interdependencies may be in the form of support agreements, which are often negotiated today among two or more interdependent but unaffiliated subcontractors. Over the last decade, these have been begun to appear as appendices to service contracts, with more extensive sections on definition, scope and performance metrics for subcontracted services. However, new sections have been added with lengthy descriptions of each servicing agent's rights and privileges, as well as their agreed standards of care, indemnities, and cooperative assertions. The sections that specify the interfaces among technology platforms can greatly influence the critical instruction and reporting deadlines, as well as the conditions under which

each agent bears responsibility for operating losses. If supervisors do not consider these support agreements, they may overlook important exposures and protections for each bank. At some point, large customers and bank reinsurers may require consortia-level operating support agreements before approving a relationship.

U.S. bank supervisors have already started to consider indirectly the matter of operating support commitments, at least in looking at the underwriting warranties for securitization contracts. But how will the supervisors know whether one support agreement is better than another? Does "better" mean stronger in terms of more financial coverage, or does "better" mean broader and faster acting remedies? The only solution for supervisors may be the development of a ratings scale of relative exposure, based on comparisons to service peers, which could be provided by researchers or trade associations.

The daisy chain of interdependencies can even convert operating risks back into more conventional risks at certain points. For example, if each interdependent subcontractor also holds commercial paper issued by every other bank, is the operating risk really market or credit risk? If one bank fails, will the other banks seize its service balances? Depending on jurisdiction, this offset could give them an advantage over other unsecured creditors. Will/should that be factored in the operating risk model as a mitigating factor?

How do the supervisors decide what model is better than others?

Rules for model acceptance

U.S. supervisors have already begun developing standards for analyzing bank internal capital adequacy models. In a 1999 memorandum to Federal Reserve bank examiners, the importance of "sensitivity analysis of key inputs and peer analysis" was emphasized in assessing an institution's approach to capital adequacy.

The FRB also noted that a banking organization's capital should reflect the perceived level of precision in the risk measures used, the potential volatility of exposures, and the relative importance to the institution of the activities producing the risk. Capital levels should reflect that historical correla-

tions among exposures could rapidly change.

It is reasonable to expect that, just as the FRB has used sensitivity analysis and peer analysis as acceptance criteria for market value-at-risk and credit models, so also will it recommend that operating risk capital models be tested. However, stress and scenario testing poses problems for operational risk. Without market values and historical databases, the OpR models being created cannot easily be tested like other models. True model validation may have to await the completion of the historical loss databases now being created by such groups as RMA and consulting companies.

While awaiting external OpR validation, the Fed may once again advise its examiners to consider an institution's other internal capital standards, such as the degree to which capital adequacy for credit risk is assigned at, or in excess of, a level already considered to be inherent in its current portfolio and reflected in its loan loss allowance.

As stated in the 1999 examiners' memo, "An institution that does not maintain its allowance at the high end of the range of estimated credit losses would require more capital than would otherwise be necessary to maintain its overall desired capacity to observe potential losses."

In situations where the FRB examiner regards a bank as operating with too thin an internal capital margin, the business lines with the greatest operational risk exposure may be expected to carry higher capital allocations than their competitors. In that event, the operating divisions of that institution may be subsidizing its credit divisions, which would have the lower capital requirements.

This illustrates how banks in the next few years may make tradeoff decisions at a holding company level that affect the ability of profit center managers to meet their business plans. Nor will these tradeoffs be limited to bankers and other practitioners.

According to Fed Vice-Chairman Roger Ferguson, "The Federal Reserve is currently developing new approaches to assessing operational risk in our supervisory process, but a common view on this topic is probably several years away." *BJ*