

Operational risk charges

A bad case of mission creep?

The Basle II proposals are causing concerns, says **Rob Jameson**

Most people agree that you can't get a square peg into a round hole. But some bankers say that's just what the regulators in Basle have been trying to do in their revision of the Basle Capital Accord. They say the regulators began carving out a series of round holes for the square peg of operational risk over a year ago, and they're still going strong.

A senior industry representative, who agrees with the principle of an operational risk charge, says the project to hammer out its details is showing bad signs of "mission creep". "We'd be better off with something dumb and simple, than something dumb and complicated," he says. "Given the limited state of industry knowledge at the moment, the most important thing is that the scheme can evolve over time."

Stephen Bland, head of policy for banks and building societies in the UK's Financial Service Authority, naturally disagreed with this analysis when he updated GARP members on Basle issues in a special London seminar in mid-April. He admitted that many bankers would like to deal with the Basle II proposals simply by deleting all the pages on operational risk. But he added that snags were inevitable, given that at times over the past year the regulators found themselves outpacing industry experts in the race to

develop ways to measure the impact of risks such as fraud and computer failure.

Bankers are concerned because the success, or otherwise, of the capital charge methodology will help decide whether their industry makes rapid progress in this new area of risk measurement – or sets off down a false trail. The new rules

will have innumerable implications, not only for a bank's cost of capital, but also for board responsibilities; how banks structure their risk

management; how they transfer risks using insurance; bank outsourcing strategies; M&A activity; relative costs of capital in business lines; risk data collection and so on.

A special kind of problem

The regulators' proposals for an operational risk charge, published in the latest consultative proposals for operational risk on January 16, outline three different ways of quantifying operational risk (Box A, page 2). It's a confusing new area of risk measurement, but these three approaches are best thought of as attempts to relate a firm's operational risk regulatory capital to its:

- size, in the form of its gross income;
- shape, in the form of its mix of businesses; and
- behaviour, in the form of its past record of losses.

Operational risk experts at lead-

1. Top 10 objections to the Basle II operational risk proposals

1. There is too little recognition of the importance of quality of management and controls in the capital calculation mechanisms (see main text and Box B, page 4).
2. The regulators' definition of operational risk includes difficult to quantify "indirect losses", and is likely to lead to confusion and double counting when collecting data and assigning capital. How will the industry and the regulators overcome the problem of establishing robust and consistent loss databases for measuring operational risk?
3. Double counting has already crept into the Basle II proposals, say bankers. For example, as part of their credit risk proposals, the regulators are saying that credit derivatives should not be regarded as full mitigants of credit risk because of documentation risks that, bankers claim, are legal/operational risks in disguise.
4. The rule-of-thumb "20 per cent of risk capital" that lies at the heart of the regulators' proposals is too high.
5. Some risk factors, and risk factor relationships, are too simplistic, from the exposure indicators in the simpler methodologies to the relationship between expected and unexpected loss in the most sophisticated approach.
6. The business units and exposure indicators will be hard to define in a way that is both practical and meaningful.
7. There is no recognition of diversification effects between different operational risks and different risks such as market risk and credit risk.
8. It's not clear if regulators will allow banks to reduce the amount of operational risk capital they need to set aside by taking out insurance contracts. The regulators continue to make encouraging noises about this idea in principle, while saying that such contracts would have to offer legally secure and virtually immediate payouts if they were to be acceptable as a form of substitute capital.
9. How should the new proposals take into account the problem of bank outsourcing of operations or operationally risky activities?
10. The regulators have not specified in enough detail what they require if they are to allow banks to use internal models to calculate regulatory capital for operational risk. ■

ing banks say the regulators' approach to each of these dimensions is flawed for many reasons. But the heart of the problem is whether any simple quantitative measure can capture the kind of qualitative difference in bank behaviour and control structures that drive much operational risk.

Simon Wills, who leads the influential British Bankers Association's Basle response team in London, says that from his perspective "the requirement for a qualitative adjustment to the proposed operational risk charge is absolute".

The qualitative adjustment has turned into a flashpoint because some industry experts don't think that qualitative differences can be captured simply by adjusting an institution's capital charge in line with the historical record of losses at an individual institution – or by refining industry-wide statistics on particular broad risk or business types.

They point out that historical losses are of little use in capturing fundamental trends with operational risk management implications, such as the switch to Internet business lines and the growth of outsourcing. And they say the kinds of risk events that are the most worry-

ing and catastrophic are also those for which data is extremely sparse. There are barely enough of these events to be analysed statistically, and it is difficult to pin them down to the kind of single cause that gives a clean link between a loss amount and a bank activity.

Regulators, and some bankers, have reason to be ambivalent about the importance of this kind of headline banking disaster in the quantification of operational risk. It was a series of really big losses that helped kickstart the discussion over operational risk capital in the mid-1990s. But regulators who want to stress the importance of supervision, over and above capital management, often point out that no realistic pot of bank risk capital could have saved, say, Barings Bank from the damage done by rogue trader Nick Leeson in 1995. Bankers arguing against the whole notion of an

operational risk capital charge often make the same point.

But those who think qualitative factors must be brought into the capital calculations say this argument misses the point. They say that if Barings had been made to set aside more capital because it was breaking best-practice rules in its back office, or because its trader control structures were judged generally inadequate, it would have had a short-term incentive to sort itself out before the guillotine dropped.

Brainstorming in parallel

Regulators say they understand the importance of qualitative factors better than anyone, which is why they've set out qualitative requirements for firms that want to adopt the more innovative measures of operational risk capital in the Basle II

A. ERisk summary: Operational risk calculations in the January 16 paper

THE BASLE COMMITTEE on Banking Supervision's January 16 proposals for reforming capital adequacy say that banks will have to select one of three main approaches to calculating their regulatory capital for operational risk. The regulators say they will calibrate the approaches so that the more sophisticated the approach taken by a bank, the smaller the resulting capital charge.

1. In the simplest or **basic indicator approach**, a bank's operational risk capital charge would be linked to a fixed percentage of a single risk indicator (eg, gross income) for the whole bank.

2. Internationally active or operationally risky banks would be expected to opt for the **standardised approach**. Each bank's component businesses would

be mapped onto standard categories of business units/business lines, which in turn would be associated with a broad indicator of the risk exposure, as stipulated by the regulator. This indicator might be annual average assets in the case of commercial and retail banking, annual throughput in the case of settlement, and so on. The figure for the risk exposure would then be multiplied by a "beta factor" that proxied the riskiness of the business line, as reflected in industry-wide data. It would then be calibrated up to a desired supervisory soundness standard. The charges across the business lines would then be added up. The result of all this would be a charge that was related to the business mix of each bank. But the charge would not be tied to the bank's "true" or economic risk

exposures, or to its history of operational losses.

3. The **internal measurement approach** is the most sophisticated approach that looks likely to be on offer at the time of implementation in 2004. Again, a bank's activities would be decomposed into pre-determined business lines and the exposure indicators for each business line, and a "gamma" term used to translate the results into a capital charge, would be determined by the regulator. But in this approach the regulator would use a simple list of loss types, such as legal liability, in combination with the type of business line under examination, to select an appropriate exposure indicator for use in the calculation. More importantly, the capital charge would then be calculated by using this exposure

indicator and the bank's own operational loss experience – the number of times loss events happen, and the losses they give rise to – for each business line. The regulators might allow banks to have some business lines assessed by the internal measurement approach even while others remain assessed by the standardised approach.

4. The January 16 paper also leaves open the possibility of a future loss distribution approach, in which the bank specifies its own loss distributions, business lines and risk types.

● *This summary includes ERisk editorial comment and clarifications. Click [here](#) to download the exact text in full from the regulatory Web site. Click [here](#) for the US interagency summary of the Basle proposals.*

2. Beating the oprisk clock: the Basle timetable

16 January 2001	Detailed proposals published
31 May 2001	Industry comments due
1 August 2001 onwards	Quantitative impact studies of credit and operational risk due
31 December 2001	Finalise structure of proposals, or at worst find a "natural resting place" for the operational risk proposals
Before end 2001	Banks likely to be told by regulators they should prepare to collect loss data if they want to use internal measurement approach
31 December 2002	Finalise calibration of approaches, but continue to collect operational risk data at industry level
2003	Bank preparation in terms of systems and processes
2004	Implementation by banks

proposals. These requirements, which include the idea that firms should set up independent operational risk management functions, are likely to influence the evolving code of best practice in the management of operational risk. Regulators also say that their supervisory powers allow them to increase capital for rogue banks.

But they have so far fought shy of linking essentially qualitative factors to the way each bank's operational risk charge is calculated. Their best attempt to do this in the present proposals – the internal measurement approach – factors in only an institution's historical loss record.

This is partly because the regulators are desperate to avoid having to make complex qualitative judgements on an institution as part of the capital calculation process. They know it would be bound to lead to some loss of consistency in enforcement across regulatory territories, even if a messy compromise between a standardised "tick box" approach and a regulator's judgement could be worked out – say, by allotting weightings to each. Inevitably, such an approach would suck up regulatory time and expertise.

Regulators also point out that the banking industry itself has not worked out a way of measuring operational risk as part of bank economic risk calculations – at least, not a way that is both practical and rigorous. They're right, which is why the problem of devising a capital charge for operational risk is so different to the quantification problems the regulators have faced in the past. When the regulators devised a charge for market risk (the 1996 Amendment to the 1988 Basle Accord), and when they began their present changes to regulatory capital requirements for credit risk, they were able to select and edit ideas from a significant body of industry-trusted methodologies, data and skills. In the case of operational risk, however, bankers and regulators find themselves brainstorming in parallel, and to a tight timetable (Table 2).

Simple solutions?

So what specific grumbles will the industry voice about the regulators' proposed capital calculation methodologies when it offers feedback before the May 31 consultative deadline? Let's take the approaches one by one. In the

case of the first, and simplest, basic indicator approach, the regulators say they will assume that operational risk should be about 20 per cent or more of an institution's risk capital. They will allocate the charge under a further assumption that operational risk rises in line with an indicator such as an institution's gross income.

In their formal reactions to the proposals, bankers will say it's unclear how the regulators came up with the idea that operational risk capital should be set at around 20 per cent of risk capital. They'll also point out that one of the few things known with some certainty about operational risk is that the size of an operational loss is not linked to the size of a firm in any straightforward way.

The second option, the standardised approach, attempts to tie the charge to the shape of an institution by taking into account the business lines that make up the institution. The problem here is that there's little industry data available to rank the riskiness of business lines. Meanwhile, experts point out that businesses that fall under the same broad category are likely to have different risks, depending on their customer and product profiles.

The third option, the internal measurement approach, builds on this business line approach to factor in the firm's behaviour in the form of the historical record of losses at the firm. It's an ambitious mechanism, but raises problems that will be difficult to overcome. First, the internal measurement approach is a complication of the simple "business line x exposure indicator" approach.

Some bankers don't believe the complex character of operational

risk can be captured using such a simple approach, and want the regulators to let them move forward quickly to sophisticated internal modelling of operational risk. Bank internal models are likely to encompass a much larger, more subtle and flexible range of inputs to characterise operational risks.

Second, the historical record of a firm – and historical data more generally – tends to be biased toward frequent and relatively unimportant risk events. The regulators and the industry have begun to collect data on operational losses at a range of financial institutions. But it's not clear whether they will ever be able to calculate a robust industry distribution of loss data in a way that takes into account the catastrophic events in the very tail of the loss distribution.

If they can, they will still have to work out the nature of the relationship between internal and external data, and specify a robust way of translating the expected losses in a firm's loss record into a risk measure that incorporates both unexpected and catastrophic risks. Their attempt to do this via a standard "gamma" factor has run into industry criticism.

Mark Lawrence, group general manager, risk management at ANZ, says: "We have a problem with the gamma concept, because we don't see a fixed relationship between expected and unexpected loss. We think management action can change that relationship."

It's an assertion that brings us back to the problem of whether and how qualitative judgements should be factored into economic capital calculations for operational risk. Lawrence says his bank has

approached the problem of quantifying operational risk by designing a set of scorecards that ask questions of each business unit to assess the effectiveness of its controls for different risks. The units are then assigned an economic capital charge accordingly. In Box B, he explains other key objections to the IMA approach from a practitioner's perspective, and suggests a way forward.

But not everyone in the industry agrees that it's possible to factor in qualitative concerns in a way that is both rigorous and objective. In some of the larger US and European investment banks, practitioners pre-

fer to concentrate solely on key risk drivers that have an objective, quantitative character. They say that introducing judgement into equations means that it's much more difficult to compare, refine and benchmark the methodologies and their results.

Among all this criticism and debate, something has become clear this spring. One of the regulators' key aims in specifying a charge for operational risks – to raise the profile of these risks and to encourage banks to explore innovative ways to measure and manage them – can be ticked off in advance. ■

B. The rights and wrongs of historical loss data: the ANZ perspective

BETWEEN 1999 AND 2000, ANZ implemented an ambitious programme of measuring its bankwide operational risk using scorecards to bring together forward-looking indicators of operational risk in the bank's various business lines.

The idea was to use the results to identify risk and to allocate economic risk capital. It's an approach that relies heavily on expert judgement rather than historical data.

So we asked Mark Lawrence, group general manager, risk management, at ANZ, to give us what he thought were the key failings of the Basle II internal measurement approach proposals:

"In short, we don't believe that losses to come are best measured by losses in the past. Experience shows that any area where large losses have happened in the past is quite likely to be an area that has since benefited most from extra controls, and so future operational losses may be less likely to occur there. We think the causes of operational risk are primarily related to the existence, effectiveness and robustness of internal controls; we believe that

a careful assessment of these elements is likely to be a better predictor of future loss than historical data.

"Another technical difficulty with the IMA approach is that it requires good loss data. The industry presently has very poor loss data, in part because it can't agree on the precise distinction between credit and operating losses. In banking, losses are often caused by more than one type of risk. If that is the case, how do you strip out the contribution of a particular type of risk and put a value on it? For example, if a loss event has components of both operational loss and credit loss, in the past it might often have been simply categorised as a credit loss. (Nobody has any appetite for going back and re-examining these historical cases.)

"So going forward, in order to measure operational losses properly, you'd need to work carefully to distinguish the contribution of operational failures to these multi-faceted losses, ie, you need to 'tell the truth' about operating losses. And everyone would have to start doing it together, at the same

time, otherwise you'd lose any comparability of loss data across banks. Unless and until we do this carefully, and in an agreed way across the industry, we simply won't have the data needed for a sensible capital calculation under the regulators' IMA approach.

"In light of these and other factors, ANZ is working together with a group of large, international banks to come up with an alternative capital proposal, based on a detailed step-by-step assessment of the quality of internal controls.

"We're actually trying to develop a more risk-sensitive, forward-looking framework which promotes incentives to improve these operational risk controls and bears a very close relationship to the actual daily process of operational risk management within banks.

"We've been talking to both the Australian and international regulators on this, and we've had some early encouraging signs from members of the Basle Committee. This so-called 'scorecard approach' framework would most likely be presented as an alternative to the IMA approach under option three." ■