

# Down with add-ons

There are historical and cultural reasons why many banks miscalculate counterparty credit risk exposures. What's needed is consistency, says David Rowe

In the early years of the derivatives markets – roughly the first half of the 1980s – the issue of credit exposure to trading counterparties was largely ignored. In part, this was due to the exposures being small enough to be considered immaterial. Limited understanding of these new activities on the part of traditional credit staff also played a role. Many had difficulty adjusting to the mark-to-market character of the trading business, which represented a dramatic shift from the comfortable historical cost accounting perspective they had always known. Needless to say, traders and trading managers were generally happy to let sleeping dogs lie. Most felt that bringing credit oversight into their daily activities was a headache to be avoided as long as possible.

This began to change in the mid-1980s. The US Federal Reserve and the Bank of England floated a draft proposal about how to incorporate derivatives into the more general regulatory capital requirements for credit risk. The analysis focused on modelling individual swap transactions with an eye to their potential future value given volatility in the underlying market factors.

The goal was to arrive at an appropriate “loan equivalent amount” to be added to outstanding loan balances and other traditional banking exposures. These augmented exposures were then to be scaled by the required risk adjustment factors (100% for companies, 20% for Organisation for Economic Co-operation and Development banks, etc) before applying the mandated 8% ratio of capital to risk-adjusted assets. The eventual rules required supplementing current default exposure based on prevailing market values with a series of simple add-on factors.

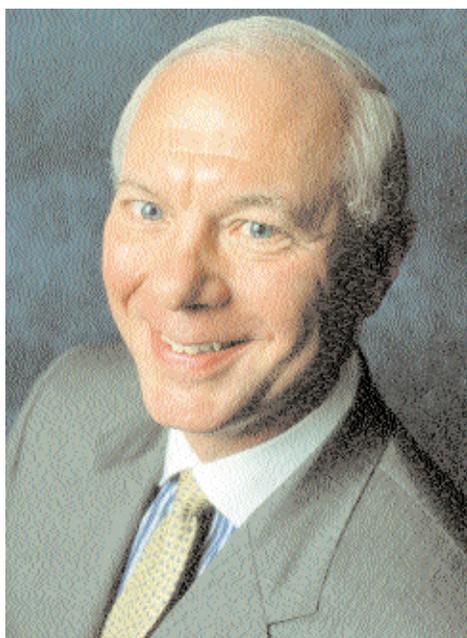
The factors eventually mandated were the result of negotiation between the industry and the regulators. They reflected the fact that such add-ons inherently fail to capture diversification both within and across individual counterparty portfolios. Since the objective was only to derive an aggregate exposure adjustment, the deal-specific add-on factors were scaled down to compensate for a normal degree of risk-reducing diversification.

Two key points stand out here:

- First, the treatment of counterparty credit exposure was a fairly minor extension to the larger issue, namely mandating minimum regulatory capital for traditional banking exposures.
- Second, the objective was to derive a simple method that was adequate for calculating aggregate modifications to risk-adjusted assets.

## The dark side

With the inclusion of counterparty credit exposure in the regulatory capital calculation, institutional risk managers realised the need for internal policies and detailed controls in this area.



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This meant setting counterparty credit limits and monitoring compliance, just as was done for loans and other traditional banking exposures. To achieve this, it was necessary to establish a method for quantifying such exposures, against which limits could be set.

Despite the explicitly aggregate purpose of the add-on methodology for calibrating such exposure, it tended to take on a life of its own. First, it carried the apparent weight of being approved by, indeed mandated by, the regulators. Second, it was fairly easy and cheap to implement a modified version of the Bank for International Settlements (BIS) rules on the back of what was needed for calculating regulatory capital in any case. As a result, some variation of the BIS approach was widely adopted as the basis for calibrating potential credit exposure to individual counterparties.

Immediately, however, the fact that this approach ignored diversification became apparent. As noted previously, reducing the size of the add-on factors is a reasonable approach when the goal is to estimate aggregate exposure. Unfortunately, however, this is a much less satisfactory procedure when estimating exposure to individual counterparties. The simple reason is that the degree of risk-reducing diversification varies greatly across counterparties. Add-ons that give reasonable estimates for one-off trades, or a portfolio of similar trades, will give greatly inflated

exposure for a counterparty with a large and diversified bilateral portfolio.

As a result, counterparty-specific exposure estimates derived using add-on methods are inherently inconsistent. Given that, it is unrealistic to expect consistent credit decisions made on the basis of inherently inconsistent metrics.

## Conservative = safer?

Generally, it was credit control staff that had the final say on how counterparty exposure would be calibrated. Given their generally risk-averse bias, it is not surprising that the resulting internal ground rules tended to be conservative. That is to say, the parameters tended to reflect minimum diversification to ensure that few counterparties would have their exposures underestimated. As a result, of course, most counterparty exposures were unrealistically inflated, in some cases dramatically so.

The behavioural assumption seemed to be that: “If we make the exposure numbers bigger we will be safer.” In fact, this is a highly questionable assumption. When measures are unrealistic, they lose credibility. In that situation, each individual responsible for setting limits makes a subjective judgement as to how much “fluff” is in the numbers and sets limits accordingly. I have repeatedly seen credit officers prepared to grant significantly higher limits for counterparty exposure than they would even consider for a funded loan to the same name. The rationale is usually along the lines of: “It’s only a trading limit, it’s not real exposure.” Once this type of behavioural feedback loop sets in, the institution has lost control of the process. Consistent decisions become impossible when each individual feels compelled to compensate subjectively for what are known to be inflated and inconsistent exposure measures.

It is important to recognise that there is no perfect solution. Trading-related credit exposure is inherently uncertain, driven by the unknown state of market conditions in the future. Nevertheless, the qualitative goal should be twofold. First, exposure estimates should be consistent across counterparties, regardless of how simple or complex is the pattern of deals in any individual bilateral portfolio. Second, exposure should be expressed in a way that is broadly consistent with outstanding loan balances. In essence, there needs to be a broadly “consistent grammar” for obligor-specific exposure across the trading and traditional non-trading activities of a bank. This will allow the seasoned judgement of the credit staff concerning financial strength of customers to produce consistent exposure limits in both areas of activity. How that can be done, and how doing so can yield additional valuable risk information, will be the subject of next month’s column. ■