Banks warn on Basel trading book review consequences

Risk managers welcome greater clarity, but fear proposals are divorced from reality of trading desk business practices

By Philip Alexander

Bankers and industry associations were due to meet with representatives of the Basel Committee on Banking Supervision (BCBS) as GRR went to press to discuss the second consultation paper on the fundamental review of the trading book. This paper, published in October 2013, seeks to provide the basis for rule-making designed to correct the flaws in trading book risk and capital management that were exposed by the 2008 financial crisis.

Responses to the second paper are due by 31 January 2014. The BCBS apparently hopes to be able to conduct a three-month quantitative impact study (QIS) during 2014, with a view to presenting a final draft for approval at the meeting of the Group of 20 (G-20) key economies in November 2014.

The BCBS proposals include an effort to rationalise the number of different measures and models used for calculating market risk. They also introduce what are termed ‘liquidity horizons’ to take into account the risk of delays in liquidating assets that do not have deep trading volumes. In addition, the Committee is keen to align more closely the standardised and internal models-based approaches to calculating market risk – making the standardised approach more risk-sensitive – and to clarify the boundary between the trading book and the banking book of assets that are assumed to be held to maturity.

In terms of rationalising risk Wary regulators are monitoring these developments closely. Indeed, monitoring and measuring the constantly-mutating shadow banking system is a key part of the FSB’s two-pronged strategy to reduce the potential instability risks this sector poses – along with the proposed adoption of the new regulatory framework.

According to the Board’s latest global shadow banking monitoring report, published in mid-November, the assets of non-bank financial intermediaries (excluding insurers, pension funds and public financial bodies) grew by $5 trillion in 2012, to reach $71 trillion. On this measure, non-bank financial intermediaries represent on average about 24% of total financial assets in the 20 countries, plus euro area, included in the monitoring exercise; and are equivalent to about half of banking system assets.

Fed governors want tougher FSB shadow banking rules

A framework of regulation for shadow banking is taking shape. But there are worries that some aspects are not strict enough

By Melvyn Westlake

Even as the Financial Stability Board (FSB), the premier rule-setting body for the global financial industry, moves towards completion of an extensive regulatory framework for the $70 trillion shadow banking system, top US officials are concluding it does not go far enough. The proposed rules for securities financing transactions, in particular, are too narrowly drawn, they reckon, capturing only part of this activity, while the calibration for minimum margin requirements would be insufficiently stringent.

At the same time, there are signs of rapid expansion in existing and new forms of shadow banking, such as US real estate investment trusts (REITs), direct lending by private equity firms, and leveraged ‘balloon’ loans largely used to finance company buy-outs. Wary regulators are monitoring these developments closely. Indeed, monitoring and measuring the constantly-mutating shadow banking system is a key part of the FSB’s two-pronged strategy to reduce the potential instability risks this sector poses – along with the proposed adoption of the new regulatory framework.

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measurements, the paper confirms the Basel Committee’s intention to replace the Value-at-Risk (VaR) concept, which measures losses up to a certain level of probability – usually 99% – with Expected Shortfall (ES). ES is designed to capture the tail-risk excluded from VaR calculations, and its adoption allows the Basel Committee to drop the use of stressed VaR that was added to regulatory requirements as an interim measure after the financial crisis.

Manoj Bhaskar

“It looks as if we are moving toward a single risk measure”

“The industry came together to provide a response to the first BCBS consultation paper, and the second paper seems to have built on some of the feedback provided, which is an encouraging sign. The principles are clearer and it looks as if we are moving toward a single risk measure, which is to be encouraged. Currently one of the biggest challenges for the industry is that there are multiple models that are not all fully consistent with each other, so at least this is building toward one coherent framework,” says Manoj Bhaskar, global head of regulatory and risk analytics for wholesale and market risk at HSBC.

Expected shortfall

There is a general consensus that ES is a more comprehensive and effective means of modelling market risk than VaR. Arnold Veldhoen, a managing consultant at financial risk consultancy Avantage Reply in the Netherlands, says some of his clients have already invested in moving to ES methodology even before the regulatory requirements have been finalised. However, implementation will need to be carefully managed.

“ES is theoretically a better measure than VaR, but there are still operational challenges. ES measures the average move beyond a certain quantile, so it incorporates extreme events that can have very different loss values. That makes the ES number much more volatile, so banks will have to improve on the models that they have to make them more stable in dealing with extreme tails. But it does not mean reinventing the wheel,” says Mr Bhaskar. Nonetheless, bankers are concerned that the finalisation timeline involving a single 2014 QIS is very ambitious, given that ES, liquidity horizons and the modified standardised approach all involve significant innovations. Mark White, senior vice-president for capital management and optimisation at the Bank of Montreal, compares the trading book review with the much more gradual process to introduce the leverage capital ratio.

“Even the leverage ratio, which is the simplest capital tool, has evolved through several QIS, with 2015 the earliest date for banks to disclose it, and further time after that before it becomes binding, giving plenty of opportunity for rule modification and calibration. Any QIS on the trading book review in 2014 would be based on estimates at best, with more than a year needed to build the systems to generate an accurate calculation of the impact,” he says. Mr White chaired the BCBS risk management and modelling group during his time as Canada’s assistant superintendent for financial institutions until 2011. He cautions that banks will need to make substantial investments as well as diverting resources from other initiatives to pursue the trading book QIS. They may be reluctant to disrupt other work to make investments that could prove ill-advised if the trading book proposal is ultimately not implemented in its current form.

Seeking consistency

While banks generally support the introduction of ES, the liquidity horizons concept has sparked a deeper debate. Banks must include larger shock assumptions for assets with a longer liquidity horizon. The implication is that it could take banks anything from 10 to 250 days to liquidate or hedge loss-making positions on the trading book. Risk managers consider the longest horizon highly unlikely. Moreover, this innovation could conflict with the actual risk implications of hedging or correlation trades.

“A bank might hedge the interest rate risk on a less liquid bond that has a three-month liquidity horizon with a liquid interest rate swap that has a one-month horizon, leading to a gap in the model outputs, even if the hedge is a good one in risk terms. And the process of measuring correlation risks between assets with different liquidity horizons could also lose economic meaning,” says Lars Popken, head of market risk methodology at Deutsche Bank.

This is in danger of generating a divorce between how banks manage risk internally, and how they manage capital against their trading book for regulatory purposes. Dr Popken says it might be better to use the same liquidity horizon assumption for all assets when calculating the market risk, before multiplying the capital requirements on certain assets to take account of liquidity risk.

“The advantage of keeping risk and capital management connected is that the model is constantly improved by the discussion between capital managers and traders whose risk limits are set using the same model. There is an argument to keeping that incentive to refine the model,” says Dr Popken.

Arnold Veldhoen

Pragmatic approach needed for overnight backtesting

Those concerns over liquidity horizons are just part of a more general sentiment that the Basel Committee is creating a gap between the regulatory capital management of the trading book and everyday risk management practices. Between the first consultation paper (published in May 2012) and the second, the BCBS has launched its Regulatory Consistency Assessment Programme (RCAP). The first paper under the RCAP initiative was published in January 2013, and focused specifically on variations between banks in the calculation of market risk. The study showed that, for 26 hypothetical portfolios of assets, different banks calculated capital requirements ranging from EUR13.5m to EUR34m.

Consequently, the October trading book review proposal has the stated aim of “promoting consistent implementation across jurisdictions.”

But Dr Popken warns that the introduction of liquidity horizons might actually cause
greater discrepancies between banks in their measurement of market risk weights, contrary to the intentions of the Basel Committee, unless all banks are required to use historical simulation models. In its January 2013 paper on such discrepancies, the BCBS noted that the choice of historical simulation or Monte Carlo models did not make a significant difference to outcomes for each bank. According to Dr Popken, the introduction of different time series under the liquidity horizons would cause Monte Carlo outputs to diverge from historical simulations. Dr Popken pointed to other means to improve comparability of internal model results between banks. For example, regulators could set the same time period for calculating the volatility assumptions used in models. A number of such simple means would improve comparability without requiring a full new capital regime like the fundamental review.

More broadly, bankers warn that the quest for consistency could result in a misalignment between capital requirements and the management of risk on the trading book. "The paper introduces new requirements such as the liquidity horizon, which are based on theory and not on practice. The 'use test' of whether these are models the banks would use to run a business day-to-day has been replaced by an approach of laying down normative regulatory capital rules that focus on severe stress," says Mr White.

Fears about the 'use test' are reinforced by the BCBS requirement that banks must model each trading desk individually, rather than being able to run a market risk model across the bank as a whole. The intention is to make it easier to withdraw and amend a model if it fails to meet quality criteria. By contrast, if a whole-bank model failed, all the bank's trading desks would have to return to a standardised risk weighting approach simultaneously, which would potentially result in an unsustainably large increase in capital requirements. But breaking models down across each desk would make it more difficult for banks to incorporate the correlation risks across their entire trading operations.

"Regulators have talked about imposing a certain correlation that will dictate how you can aggregate across all your desks, but that correlation varies by bank depending on how the business is set up. If regulators set the correlation factor, then potentially the biggest risk for a bank will be a regulatory calibration risk that cannot be hedged," says Mr Bhaskar. Even divided across individual desks, the systems capacity required to backtest models and respond immediately to model failures will be huge. Mr Veldhoen of Avantage Reply notes that the consultation paper talks about both weekly and daily backtesting.

"Basel will need to come to a pragmatic approach to ensure that banks can all produce, validate and action backtesting results within a limited numbers of days. Backtesting the models of each desk overnight and reverting a desk back off the internal model that same day will be quite challenging, as backtest results often require validation and data quality checking time of more than one day," says Mr Veldhoen, who was previously a risk manager for Macquarie Bank.

**Jouni Aaltonen**

"The standardised approach should not be used as a floor to internal models"

**Not so standard**

For less sophisticated banks that do not possess large internal modelling capacity, the standardised approach is supposed to offer an alternative. But modifications to the standardised approach are in danger of making it almost as complex as internal modelling, warns Jouni Aaltonen, a director in the prudential regulation team at the Association for Financial Markets in Europe (AFME).

The new standardised model is based on decomposing the present values of trading book cash flows. Mr Aaltonen says this technique is ill-suited to traded instruments.

"The standardised approach penalises matched book activities. This is because the market risk capital attributed to a portfolio of perfectly offsetting transactions will not be zero and it will increase with the size of the portfolio – even though its market risk is zero," says Mr Aaltonen.

This is particularly troubling, because the BCBS has hinted at requiring those banks which use the internal model-based approach to disclose what their market risk would be using the standardised approach, or even to use the standardised approach as a floor for internally modelled market risk.

"The standardised approach should not be used as a floor to internal models because it does not provide the right incentives for continuous improvement of risk models. Its simplistic risk factor approach may also incentivise finding arbitrage opportunities that are unlikely to be aligned with real economic risks of particular trading businesses," says Mr Aaltonen.

**Setting boundaries**

In its search for regulatory consistency and the removal of arbitrage opportunities, the BCBS is also determined to prevent banks moving more volatile assets from the trading book into the banking book. The first consultation paper proposed an evidence-based boundary, requiring banks to prove that assets belonged in the chosen book. The industry lobbied for a boundary based on stated intent, and the BCBS settled on a compromise between the two.

Bankers generally welcome the compromise, and in particular the reduced reliance on accounting definitions that did not necessarily correspond with the realities of the trading book. But the consultation paper also includes an extensive list of presumptions attempting to define what assets should go into which book, creating another layer of complexity.

"It is right for supervisors to require banks to document decisions on what banks put into which book and for supervisors to review such decisions – but if supervisors are required to approve such decisions in advance, it could create too much work for supervisors and banks alike. More importantly, there is a danger of moving toward an exhaustive checklist that is followed without a deeper understanding of the purpose of the boundary and a good faith attempt to place transactions on the right side of the line," says Mr White.

Underlying all the concerns about modelling the new market risk capital requirements is the knowledge that this is just one of several ongoing Basel Committee reviews. In the context of expectations that the US interest rate cycle has bottomed out, Mr Veldhoen says the proposed review of interest rate risk in the banking book could begin to draw systems resources away from the trading book review.