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FSA's implementation of the new internal modelling method (IMM) for counterparty credit risk - Sept 2005- Industry response to FSA consultation

1. Partial Use

Does the standing group believe this approach is appropriate?

Firms agree with the approach proposed by the FSA for partial use. However, it would be useful if the FSA could clarify the discrepancy that is perceived to exist between the Directive and the Revised framework regarding VaR exposure modeling for repos (Para. 8), and if it could share with participants the latest wording of the relevant provision of Annex VIII of the CRD.

Both the Basel and the EU text require the inclusion of all material repo-style trades under the VaR approach. The backtesting process originally envisioned by the Basel Committee only made sense if all material positions were covered.

Regarding netting, it should follow from the Trading Book Review that a trade not covered by a Master netting agreement is treated as an individual transaction, but can nonetheless be included within the scope of VaR exposure modelling.

Do firms want the FSA to define a quantitative materiality threshold?

Firms do not believe that further guidance is needed on a quantitative materiality threshold.

More importantly, any materiality threshold, if deemed necessary, should be harmonized across the G-10 and the EU. Industry would expect the need for, and size of, any materiality threshold to be discussed in the Accord Implementation Group of the Basel Committee before a threshold is adopted by the FSA.

Furthermore, there is no specification or definition of the quantity being measured to assess materiality. For example, is the threshold intended to be 15% of:

a) the sum of the notional principle of all the transactions;
b) the current market-to-market of the total portfolio;
c) the sum of the stand-alone Risk Weighted Assets (RWA) of all transactions as measured by the Current Exposure Method;

d) the sum of the stand-alone total EPE calculated on a portfolio basis, etc. One firm recommends using definition b) or c) above – with c) preferred.

Finally, it seems difficult to set the threshold before the implementation of the Trading Book Review by firms.

2. VaR as a measure of exposure under an IMM. Alternative measures for exposure under an IMM

Does the group have views on these proposals? Does the group believe further guidance is required?

Combination of approaches: Use of Var and EPE (Para 13)

- We seek clarification on what is meant by measures of exposure coming out of a less risk sensitive IMM (Para. 13(d)). As an overall comment, it should be stressed to the FSA that there should not be a need for multipliers as the rules within the Trading Book Review to measure counterparty credit risk are well defined, including appropriate emphasis on conservativeness.

- We also seek clarification on how the FSA is proposing to blend peak exposure with EPE based measures of exposure. One particular instance where using both EPE and peak exposure may be appropriate is where some transactions with a given counterparty expose the firm to specific wrong way risk, for which peak exposure may be deemed a more prudent measure of risk. We, however, view such instances as the exception rather than the rule.

Use Test (Para. 14-18)

- Firms support the Use Test requirements, in particular the flexibility to use different measures of exposure for different business purposes, e.g. peak exposure for setting counterparty credit limits.

- However, as the FSA expects to examine if a model is fit for purpose based on the underlying portfolio, we query whether it is envisaged to prescribe the use of certain models depending on the contents of the portfolio.

3. Own estimates of alpha

Does the group have any views on the points (i.e. Paragraph 25 (a) and (b))?

Alpha computation (Paragraphs 22 to 25)

- Member firms continue to view the application of a 1.2 floor on own alphas as counterproductive, and the requirement to compute alpha on a quarterly basis, as unnecessary. However, we understand that the FSA is bound by the terms of the

Capital Requirements Directive and must therefore comply with these requirements at this stage.

- Firms have raised concerns with respect to the FSA allowing firms to calculate their own estimates of alpha as this approach is available to firms with the Trading Book Review provided that they meet the operational requirements. The detail of the computation of alpha is set out clearly in the Trading Book Review document. No additional guidance is felt to be useful.

- With respect to alpha, it is important that regulators work with the industry to identify the key factors that alpha is sensitive to. Because alpha is a ratio, its value will be sensitive to those particular factors that have a differential effect on the numerator (EC via full simulation) and the denominator(EC via EPE). In contrast, alpha will be insensitive to those factors that affect the numerator and denominator in essentially the same proportion. It would, therefore, be inappropriate for regulators to demand that a firm spend resources to improve the capture or modelling of factors that alpha is insensitive to.

  Sensitivity testing performed by the ISDA CRWG on the value of alpha has shown, notably, that alpha is not highly sensitive to variations in the soundness standard retained for computing economic capital. Harmonisation of the percentile used to compute alpha is therefore not perceived to be useful by firms.

  Other parameters influencing the value of alpha include the default correlation between counterparties, the choice of LGD estimates, as well as the modelling of the impact of maturity on the value of positions. Industry believes that firms should be allowed to use, in the computation of alpha, the same approaches adopted internally for determining and modelling correlations, LGD and maturity effects [see Appendix : ISDA's recommendations to the Basel/IOSCO Trading Book Review Group on the computation of alpha].

4. Alpha higher than 1.4

Does the group have any views on this point (i.e. Paragraphs 26 and 27)?

No specific comments from the member firms.

5. Large Exposures

- **Does the group believe that there are circumstances when Effective EPE would not be appropriate for large exposure purposes?**
- **If so what are these circumstances and what alternative approach would be more appropriate?**
- **If a peak measure is used, how should this be calibrated, i.e. what confidence interval and time horizon should be applied.**

Discussion on whether Effective EPE should be the basis upon which a firm measures large exposures should be deferred until 2006, when the EU Commission is planning to revise the Large Exposures directive.

The issue here is the goal of the measurement. The appropriate definition and method for measuring potential exposure depends on the purpose of the measurement.

6. Hedge funds

- Firms would like to understand the FSA's reasons for looking closely at hedge fund exposures; it was not a category identified for stricter treatment under the Trading Book Review.

- The statements about wrong way aspects of hedge fund exposures are not substantiated. Because most if not all transactions with hedge funds are done under a margin agreement, the issue of "wrong way risk" becomes greatly diminished in importance.

  For margined hedge funds: There may be a need for banks to calculate an unmargined, high confidence level (e.g. 99%) exposure profile for each hedge fund obligor, as a means of measuring the worst case scenario amount of margin the hedge fund would have to post. It might be reasonable for each bank to measure, monitor and limit this quantity (i.e. measure, monitor and limit the maximum amount of margin a hedge fund would have to post, given its liquidity constraints). This effectively sets a type of limit on the volume of (uni-directional) transactions a bank will transact with a hedge fund.

7. Confirmation of trades

- ***Do current models distinguish between confirmed and unconfirmed trades?***

  Firms are concerned about the comment relating to unsigned confirmations. Unsigned confirms are an important audit issue, and are likely to be treated as operational risk. Furthermore, legal advice obtained by ISDA shows that the enforceability of netting agreements in the UK is not adversely influenced by the lack of confirmations.

8. Treatment of margin agreements

- ***What further controls/measures do firms typically have where extensive use is made of margining?***

  This is a firm specific question and each firm may have to answer individually.

- ***How would firms define their margin period of risk ?***

In general, the "margin period of risk" should have the following components:

a) Time between margin calls (i.e. one day for daily margin);

b) Estimated time it would take to terminate the underlying OTC derivative/SFT transactions. This estimated time should include any standard "grace period" (i.e. total might be four days).

c) Estimated time it would take to sell assets posted as margin. For liquid assets this should be almost instantly. For illiquid assets (e.g. Emerging Market Fixed Income Securities) it might take several days.

On an aside, we would like to know whether the minimum margin periods of 5 days for repos, and 10 days for OTC derivatives, apply to firms which can model margin agreements (paragraph 123 of the Trading Book Review document) under the IMM. The 5 days and 10 days minima are explicitly mentioned only under the simplified method outlined at paragraph 124 of the Basel/IOSCO Trading Book Review document.

9. Internal credit valuation adjustments

- The original maturity in Paragraph 30 should, in effect, be residual maturity as the approach is based on duration analysis. We appreciate that the FSA has simply copied out the Trading Book Review document on this issue, which points to an error in the original document itself (paragraph 121).This error should be corrected at the earliest opportunity.

- We seek clarification on further guidance on an internal model to calculate a one-sided credit valuation adjustment.

10. Approval process: Home-Host issues

- ***Are there any issues that the FSA should be aware of when devising a time-line for the IMM approval process?***

  No specific issues identified.

11. Parallel running

- ***Does the group have any views on parallel running?***

  Firms seek clarification on what will parallel running involve.

- ***Would a 1 year period as required for credit and operational risk cause any problems?***

The main issue for US banks is that the NPR from US regulators has been delayed. The later the NPR is issued the less time will be available to build and incorporate all requirements into the risk/finance infrastructure needed to calculate RWA under Basel II. Thus the US banks will be caught between two constraints – a) The date the NPR is released and b) January 1, 2008. As the interval between a) and b) shrinks the amount of time available to do parallel running will of necessity shrink.

- ***Are there any reasons why parallel running would be overly burdensome for some firms?***

Yes, see above.

12. Stress testing.

It should be stressed to the FSA that as firms will be giving priority to implementing the new modelling approach for counterparty credit risk, the stress testing requirements may not necessarily be fully implemented by implementation date. We, therefore, urge that stress testing should be viewed as an 'evolutionary' process.

13. Other aspects.

Firms do not require guidance on the three areas identified in the paper although firms would like clarification on the types of risk that the FSA would consider as not being captured under Pillar 2.

APPENDIX

Operational Requirements for Firms that Compute Their Own Alpha

I. Objective

Most firms will use standard values of alpha provided by regulators. Those standard values of alpha will be based on broad estimates of portfolio behavior. In some cases, those values will depart substantially from the real value of alpha for a particular firm's portfolio. This paper describes the operational requirements for firms that choose to compute alpha for their own portfolio.

II. Definition of alpha

Alpha is the ratio of two estimates of economic capital, both at the 99.9% downside over a one-year horizon. Alpha must be computed using a consistent economic capital model in the numerator and denominator. This minimizes the impact of a particular economic capital model because many of the model's characteristics largely cancel out in the computations of the numerator and denominator.

In the denominator of alpha, capital is computed using a fixed level of exposure (equal to EPE) over the full year. In the numerator of alpha, capital is computed using the stochastic exposure outcomes resulting from the derivative exposure simulation. This includes both the uncertainty of exposure levels and the correlation between exposures. It also includes right/wrong way correlations, which are correlations between exposure levels and default frequency.

III. Philosophy re: firms' economic capital models

Economic capital models are expensive and complex. These models are being enhanced over time to deal with issues such as right/wrong way exposure. It is counterproductive to require firms to use any particular model to compute alpha. Firms should be allowed to use their own economic capital models to compute alpha, as this would be consistent with the "use test" and would encourage them to invest in enhancing their economic capital models.

IV. Operational requirements for computing alpha

1. It is essential that alpha be computed on a consistent basis in the numerator and denominator. Inconsistencies between the models used in the numerator and denominator can lead to counterintuitive results, such as alpha less than 1. Therefore, the methodology, portfolio composition, and parameters must be consistent in the computation of the numerator and denominator.

2. Alpha may be computed using either of two assumptions.

a. The computation can be based on a default-only simulation. In this case, the loss is based on the simulated value of the contracts at the time of the assumed default. If this option is chosen, the simulation should include the impact of counterparty default, but not the benefit of the default of the bank itself.

b. The computation can include both downgrades and default. In this case, the bank must demonstrate that it has included the impact of a downgrade based on the counterparty's future EPE conditioned on the then-current simulated market variables. If a downgrade approach is taken, banks may adjust for the change in the value of derivative liabilities as well as the change in the value of derivative receivables.

3. The numerator of alpha should include appropriate correlations between interest rates, equity prices, and default probabilities (including credit spreads) with the systematic credit variable(s) in the economic capital simulation. If such correlations are already included in the computation of each counterparty's EPE, then the (fixed) exposure in the denominator of alpha should include these correlations, as well.

4. With respect to specific wrong (or right) way risk (e.g., buying a put from a corporation on its own stock, or a baht/dollar forward with a Thai counterparty), there are two alternatives. The impact of these alternatives is to ensure that specific wrong way risk is included in regulatory capital at the aggregate level with no double count.

a. The firm may choose to model specific wrong (or right) way risk in its computation of EPE for each counterparty. In this case, both the numerator and denominator of alpha should be based on exposure levels including the impact of specific wrong way risk. This is appropriate because the EPE used for regulatory capital (in the denominator) already includes the impact of specific wrong way risk.

b. The firm may not be able to model specific wrong (or right) way exposure for some transactions. Or, it may model specific wrong way exposure in a way that cannot be represented in an alpha computation. In this case, the firm may exclude such transactions from the numerator and denominator of alpha. The capital for the portfolio would then be computed as the sum of:

- The capital for ordinary transactions (based on EPE x alpha)
- An add-on for transactions with specific wrong (or right) way exposure. This add-on is computed based on the expected exposure of wrong (and right) way transactions, conditional on default of the counterparty. The firm must demonstrate to its regulator that the estimated exposure for such transactions includes the impact of wrong (or right) way exposure.

5. Alpha may be computed using a single-period approach (where defaults are assumed to occur only at the end of the period) or a continuous-time approach (where defaults are allowed to occur during the course of the year). The computation of exposure on each position should be consistent with the assumption regarding default timing. That is, single-period computations should be based on period-end exposure, and continuous-time computations should be based on exposure at a particular point in time.

6. Economic capital in the numerator and denominator should include only the unexpected loss, and should exclude the expected loss and any expected earnings.

7. Other key factors in the computation of alpha should be reflected in both the numerator and denominator of alpha. These should be based on the firm's economic capital model. These factors include:

- The correlation between obligors' default probabilities and credit ratings
- Recovery rate assumptions, and the recovery correlation (if any) between obligors