



Trading Book Group

9 March 2009
TBG/09/02

TBG QIS qualitative questionnaire

A. Incremental risk charge

All of the following questions should be answered on the basis of the quantitative information provided. Firms should also identify if they expect to use different data sources or modelling approaches when they implement IRC in December 2010 and explain (and, where possible, quantify) what the impact of any differences would be.

Data used to generate the capital charge

1. Describe the systems that were used to obtain the data for input into the models.
2. How was default and credit migration modelled? Did the firm use an integrated approach?
3. For default:
 - (a) Please explain the source (and time horizon) of the PD.
 - (b) Do the PDs match the liquidity horizon? If they do not, explain how they are transformed to match them.
 - (c) Explain the LGD and its source. Does it vary across asset classes? If so how? Is it assumed to be deterministic or random? If it is random, please explain how this is modelled.
 - (d) Did the model use a range of pair-wise asset correlations to determine portfolio default? If not, how was portfolio default determined?
4. Please describe how the credit migrations are modelled. If transition matrices are used to model the credit migrations, please explain how any transition matrices are transformed to match the liquidity horizons.
5. How were the credit spreads for the ratings bands that are used in the transition matrices measured, ie, internal or external data? For internal data please explain how this was determined and validated. Which risk-free interest rate is the credit spread based on? Please explain this choice for different types of exposures.
6. IRC must include correlation between default and migration events – how was the data for the impact of clustering of default and migration events determined and how was the correlation estimated?
7. Please describe how the liquidity horizon was determined, ie, how is actual practice and experience during periods of systematic and idiosyncratic stresses accounted for and whether it was determined by position or on an aggregated basis. If it was

determined on an aggregated basis, please describe the aggregation criteria that were used.

8. Please explain how the liquidity horizon takes issuer and market concentrations into account.

Model used to generate the capital charge

9. Please indicate if the firm's IRC model was developed as an integrated default risk and migration risk model from the outset and describe the model.
10. If the firm's default risk model was extended to include migration please describe how this was done.
11. In the event of a migration, is the resulting price change that occurs deterministic or stochastic? If it is deterministic please describe how the price effect for each migration is determined. If it is stochastic please describe how these random price changes are modelled.
12. Describe all significant sources of basis risk and how this was quantified and captured by the model. Describe if and when proxies were used without basis risk being quantified.
13. Did the firm elect to use the one year constant position assumption?
 - (a) If yes please describe how this was modelled.
 - (b) If no, please describe how the constant level of risk was determined over the capital horizon and how the roll over was modelled.
 - (c) Indicate whether a single period or multi-period model was used.
 - If this is a multi-period model, how was correlation modelled across time?
 - If this is a single-period model, how is the liquidity benefit reflected in the model.
14. Describe the methodology used to reflect issuer and market concentrations.
15. Describe the methodology used to include non-linear positions in the model.
16. If equities were modelled within IRC, explain how the constant level of risk was implemented for equities. Furthermore, explain how default and migration risks were implemented for equities.
17. When providing inputs to the IRC worksheet of the quantitative questionnaire, were any scaling factors used to transform results from shorter liquidity horizons or capital horizons? If yes please provide:
 - (a) The methodology used to determine the scaling factors;
 - (b) Evidence that use of the scaling factor would deliver a charge at least as high as the charge produced by a model that directly applies the relevant horizons.
18. Validation – describe methods that were used to validate the following:
 - (a) Model inputs
 - Liquidity horizons
 - Correlations assumptions
 - PDs, LGD

- Migration transition matrix (if applicable) or other methodology used to model credit migrations.
- (b) Model performance, for example
- Validation at lower confidence intervals,
 - Testing of IRC using stress and scenario testing (provide examples of stress and scenario testing that would be used – type of events/stressed periods)

Composition of the portfolio

19. Describe any (eg non-linear) exposures in the portfolio for which it would be particularly difficult to model IRC.
20. Which desks did you include in your IRC model?

B. Stressed VaR

Existing VaR model

21. Is the VaR methodology based on Historical Simulation (HS), Monte Carlo (MC) or Variance-Covariance (VCOV)? If the methodology differs from the ones above or if it is a hybrid of them (eg, HS for some portfolios and MC for remainder) please describe how so.
22. Please specify whether the bank uses sensitivity analysis or full revaluation when estimating its VaR. Please provide a brief description and specify if different approaches are used depending on the asset class.
23. Please specify what confidence level is used in your VaR estimation. If the confidence level differs from the regulatory confidence level, please describe how the adjustment to the regulatory level is made and how the error is controlled.
24. Please describe how the 10-day VaR is achieved. Are there scaling factors (eg, 1-day VaR scaled up to 10-day VaR)? If so, please describe how the scaled up VaR-based capital charge is adjusted to account for the risk of positions that might not lend themselves to scaling (eg, linear scaling of non-linear positions).
25. Were any changes made to the data observation period/data series for the VaR calculation to make VaR more responsive to the market conditions of the last two years ie lengthen the period, weight the data differently? If yes, please quantify the impact at the current date.

Non-stressed VaR

26. If you were unable to provide the VaR of the current portfolio as at 31 December 2006, please provide a description of the methodology used to compute the VaR (in the less volatile period) and an estimation of the quantitative difference between non-stressed VaR and stressed VaR.

Stressed VaR

All of the following questions should be answered on the basis of the quantitative information provided. Firms should also identify if they expect to use different data periods when they

implement stressed VaR in December 2010 and explain (and quantify) what the impact of any differences would be.

27. How did you determine the 'stressed period', and which period(s) did you use?
 - Was the same period appropriate for all asset classes? Please explain why and provide details.
 - If the same period was not used, how did you aggregate the different periods?
28. How did the stressed VaR observation period compare to the non-stressed VaR observation period (ie length of period, weighting of data etc).
29. How could the stressed VaR be used as a risk management tool?
 - What relationship does it have to normal stress testing?

C. Securitisation charges

30. How will the new specific risk charges for securitisations affect the firm's approach to internal specific risk modelling for these positions?
31. Will any specific risk models that are currently being used for regulatory purposes not be used once these charges become effective? If yes please provide an estimate of the impact of not applying these models to securitisation positions.

A hedge can be defined as taking a position to reduce the risk of adverse price movements in an asset. Normally, a hedge consists of taking an offsetting position in a related security (definition provided to assist with questions below).

32. Please describe hedging strategies used involving securitisations and re-securitisations
33. For all positions – are there positions that are part of a hedging strategy but the hedges will not be recognised once the new standardised securitisation charges come into effect? Please provide a description of the capital impact on the Securitisation worksheet of the quantitative questionnaire. Are there any inherently offsettable positions across desks that provide diversification benefits but would not be recognised with the new standardised securitisation charges? Please provide a description of the impact on the Securitisation worksheet of the quantitative questionnaire.

Approach taken to determine inputs to supervisory formula approach

34. How were the inputs to the supervisory formula (ie KIRB, ELGD) and the underlying parameters (LGD, PD) determined? Please provide details.
35. Explain how the underlying parameters were validated.