Comment from Stefan Mittnik

The Committee's move from Value-at-Risk (VaR) to Expected Shortfall (ES) clearly is a step in the right direction, as ES better reflects tail risks. The chosen strategy for aggregating risk is, however, not compatible with the Committee's focus on the 2.5% loss-tail area. Correlation parameters seem to be derived by computing moving-window (Pearson) correlations and picking specific quantiles (25%, 50% and 75%) from the resulting set of correlation estimates. It is not clear why this should provide proper dependence measures for computing the aggregate 97.5% ES; and the Consultative Document does not seem to give a justification.

The interest should be to measure stress-dependent rather than time-dependent association between instruments. Pearson correlation measures linear dependence, and time-varying correlations typically indicate a lack of linearity and, thus, model misspecification. If one wants to stay with correlation as measure of dependence, it should be viewed as a local linear approximation. Then, however, the location, where the approximation is derived, should be compatible with the risk measure entertained. For ES, one should use tail correlation estimates that are compatible with the tail area under consideration. Methods for computing VaR-compatible and ES-compatible tail correlations have been presented in Mittnik (2014a,b).

Mittnik, S. (2014a), VaR-implied Tail-correlation Matrices, Economics Letters, 122, 69-73

Mittnik, S. (2014b), Correlation Matrices for Tail-risk Aggregation, Working Paper, Center for Quantitative Risk Analysis, Ludwig-Maximilians-Universität München, www.cequra.uni-muenchen.de/working_papers/index.html