

Best Estimate Valuation Tool

Update 6 June 2008

Summary description of changes

The aim of this update is to give the user more flexibility for the estimation of the tail of the risk distribution, and to improve the estimation of the standard error relating to the tail.

The estimation of the standard error contained in the tool intends to provide additional information on the appropriateness of the estimate. Where participants have already used the previous version of the valuation tool to determine (discounted or undiscounted) best estimates or durations of claims provisions, these calculations would still remain valid.

1. Allowance for exogenous tail factor

The tool has been extended to allow the specification of an exogenous tail factor, which can be entered in cell Y44 in the worksheet *cumulative data*. Where such an exogenous tail factor has been set, the internally estimated tail function is not used.

Where this option is used, the calculation of the run-off time of the reserve, as well as the computation of the present values and duration of outstanding liabilities has been amended accordingly, assuming that the exogenous tail factor leads to an extension of cash flows by one year.

2. Improvements to calculation of standard errors for the tail

To assist those users who wish to specify their own estimates of the standard error for the tail, a helper tab entitled *s.e. analysis* has been introduced summarising the estimates of the individual development factors and the corresponding standard errors within the data triangle. These figures can be obtained after a first run of the tool and can be used to derive an assessment of the standard errors $s.e.(f_{ult})$ and $s.e.(F_{.,ult})$ to be entered in cells L1 and N1 of the worksheet *cumulative data* in a subsequent run.

Moreover, some small amendments to the calculation of the standard error for the tail have been made to ensure the consistency of this calculation with the method proposed by Mack. Also, the *cleanup* macro has been adapted to also clean up the input cells concerning the estimates of the standard error for the tail.