

Steve Dixon Associates Update

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Prudential regulation

The QIS5 Experience

Quantitative Impact Study 5 for Solvency 2 is well under way. The work for the 6 life clients has been considerable and we are now putting together the spreadsheets and word documents necessary to file the returns to the FSA and to CEIOPS. All of our clients (including one fund of near £3 billion) are using the standard model for the Solvency Capital Requirement.

The conclusions we have reached so far are:

1. The work on assets is considerable especially with the look through requirements. All of the assets need to be analysed for the standard stresses and this means looking at hundreds of underlying holdings for some collectives.
2. PHI coverages require quite a bit of thought. We have a model that generates expected claim payments from status at the valuation date and allowing for recovery rates and incidence rates. Recovery annuity times incidence does not allow for the yield curve.
3. Surplus distribution needs to be thought through for some of the more esoteric distribution methods.
4. The spreadsheet is not as well designed as it could be. You do feel as if you are entering the same items three or four times over especially the reserve figures. The counter party helper tab is good and generates the same results as doing the sums directly but some of the helper tabs are not helpful. The discounting tab assumes all of the cashflows are annual

which does not work well with monthly modelling.

5. It has taken longer than expected.
6. Pension schemes for staff become much more important in the overall prudential balance sheet.
7. The release of closure reserves and the move to open fund renewal and claim expenses are generating reductions in reserve for many clients.
8. For general insurers, the estimate of the loss ratio for the last year becomes much more important than under the passive earned premium methodology. Losses and profits are brought up to the initial sale date of the contract.
9. For general insurers, the standard model is very simple. It would be useful if the stresses for insurance risk were changed to follow the life method stress with higher claim incidence and amount being required to be modelled through the premium and claims reserves as well as stresses on expenses and on selective lapses.
10. The morbidity trend stress is very large for permanent health insurance generating predicted sickness claims for all of the outstanding claims of roughly double of the best estimate for one client. Although a large one year stress maybe of the order of trebling claims, we would expect a long term stress to maturity to be of the order of +30% to +50% at a 1:200 level.
11. The boundary conditions for premiums and for the duration of the contract took considerable thought. Recurring single premium pensions and ISAs were examples on the premium boundary. Medical expense

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insurance has some interesting problems on duration for boundary conditions.

12. The results will be useful in recalibrating (or the initial calibration) of ICA work for some clients. The realistic valuation approach and the considerable work carried out in calibrating standard market stresses and insurance stresses will be very useful in considering the short term ICA stresses.

13. The text completion is difficult especially the swapping from Excel to Word format between different questions.

14. The spreadsheet takes a day to enter (roughly) on a fairly simple firm. The text also takes nearly another man day. The spreadsheet still does not appear to be the final version at version 6 (version 5 on the website download). It may be useful to wait until the last few days before 31st October before updating the earlier version data to the last version.

Overall, an expensive exercise.

Whether the work involved (roughly equivalent to a major product development for each client) generates value for members or policyholders remains to be seen.

S. Dixon
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