Committee of European Insurance and Occupational Pensions Supervisors

CEIOPS-FS-10/05Rev1

EU Solvency II project – QIS1 qualitative questionnaire

1. For convenience this paper covers all qualitative questions relating to the QIS1 package even if they are mentioned elsewhere. The structure of the questionnaire is based on the spreadsheet design (tab pages), and the corresponding points of the QIS1 specification document are mentioned in parenthesis. If you have general views or issues that are not covered by the questions below, please mention also them in your response.

General information

2. Please indicate if certain lines of business or parts of technical provisions have not been included and give also the reason why they cannot be included and their materiality (as a % of the total technical provisions). (6)
3. In case you report on behalf of a group, please list the single entities which were included in the QIS1 and describe how the group figures were combined? (1)
4. Please indicate if a duration approximation approach has been used for discounting the provisions, and disclose the risk-neutral rates that have been applied, if different from the QIS1 specifications. (42-44) Do you have views on how the "risk-neutral" rate should be determined? Would your present systems allow you to apply a term structure approach? If not, what level of cost would be incurred to introduce such systems?
5. For life insurance, please explain how you have chosen the risk groups that you have used. For non-life insurance, in case you used a different risk group segmentation from that suggested, please describe how it differs from the Accounting directive segmentation. (7,8) Do you have any further comments and ideas on this topic?

Life Risk Groups

6. Technical provisions in life insurance: For the best estimates, the 75th and the 90th percentile, please explain the methodology applied, and how the main actuarial assumptions (mortality, morbidity, take-up rates for options etc) have been chosen (13-21,48-50). Regarding the contribution of the several risk factors to the technical provisions, which risk factors do you consider the most important for your major business lines? (16) Please give a description of how expected demographic, legal, medical, technological, social or economic trends / developments are taken into account in the valuation. Did you have any significant difficulties in performing the QIS1 valuation and on which areas

(please distinguish between best estimates and risk margin)? Do you have further comments or views?

7. Financial guarantees (51) and other options (19-20): Please explain the calculation methods and assumptions applied. In particular if an arbitrage-free investment model has been used in the valuation of part or all of the technical provisions, please address the following questions:

   - who (department/function or outside provider) has done the model development and calibration?
   - how is the model validated?
   - which risks do you consider as financial risks and how do you combine them with underwriting and other risks?
   - costs, time and resources involved compared to traditional actuarial methods?
   - robustness when the modelling equations or assumptions are changed (i.e. is the model relatively stable or very sensitive to small changes)?
   - use of risk-neutral assumptions (probability measure, asset returns etc) or state price deflators (real world probability measure and assumptions)?
   - practicability and reliability of calculations?

   Did you apply or consider other financial market-based methods in the valuation, e.g. hedging or replication?

8. Bonuses (24-26): Please explain the methods and assumptions applied (including the role of any bonus reserves/provisions, if significant). Have you used an arbitrage-free investment model in the valuation and is it the same as for financial guarantees and options? Is the apportionment between annual and final bonuses relevant? If so, please describe the methods applied. Which relevant assumptions regarding the future bonuses and profit-sharing policy have you applied?
9. Management actions (23,25,27): Have you taken any future management actions into account in the best estimate and risk margin valuation processes? If so, please specify the effect on the technical provisions and justify your approach.
10. Surrender value floor (22): To the extent possible, the participant is requested to give an approximation of the contribution of the surrender risk in the 75th/90th percentile risk margins calculated following the specification, and to briefly describe the approach followed.
11. Please explain briefly how expenses are considered and disclose the assumed rate(s) of inflation of expenses. (27,36-40)
12. Reinsurance, have you taken it into account and how? Any other comments on this from either a theoretical or practical point of view?

Life optional questions

13. Diversification (9,48): The default option is to determine the percentiles per risk group, but the calculation of the risk margin for the whole legal entity is optional.

Please explain the methodology applied if the diversification effect has been taken into account when combining the percentile figures for different risk groups. Do you have further comments or views?

14. Please explain the rationale and methodology you have adopted if you have additionally used another approach (your own approach or the 60th percentile) to calculate the technical provisions including the risk margin.

Non-life risk groups

15. Non-life technical provisions.(29-) Participants should provide information on the following:
    - the statistical methods and general assumptions used
    - the types and sources of data used in the analysis (e.g. type and length of claims triangles);
    - how the effects of inflation on claims and other costs have been taken into account;
    - the expected impact of large claims on future claims costs, and whether large claims were analysed separately; and
    - where non-statistical methodology was used (e.g. case by case), a description of how those estimates were derived.
    - how the statutory provisions were valued[1]
16. Please explain how the risk margins (i.e. excess of 75th and 90th percentiles over the best estimate) were derived. (48-50) Did you face any major practical difficulties (please distinguish between best estimates and risk margin)? Please give also a general idea of how the other main actuarial methods and assumptions were chosen.
17. Recoveries (35): Where recoveries are expected to be significant, could you please also disclose estimates gross of salvage and subrogation?
18. Reinsurance (45-46): How would you describe this area of QIS1 valuation from theoretical and practical points of view? In the case of any reinsurance accepted please describe how this has been apportioned across the different risk groups.

Non-life optional questions

19. Diversification (9,48): The default option is to determine the percentiles per risk group, but the calculation of the risk margin for the whole legal entity is optional. Please explain the methodology applied if the diversification effect has been taken into account when combining the percentile figures for different risk groups. Do you have further comments or views?
20. Please explain the rationale and methodology you have adopted if you have additionally used another approach (your own approach or the 60th percentile) to calculate the technical provisions including the risk margin.

[1] QIS spec. para 11

Additional questions

21. Did you take into account any tax effects in the technical provisions and how? (41)

22. When one or more simulation models were used (life and non life), please describe the models and if they are built in-house or based on models from outside providers. Please also explain on which data the calibration relies.

23. Please provide some assessment of the reliability and accuracy of your results.

24. Please explain how you have treated reinsurance accepted when completing the forms. Did you encounter, or foresee, any particular problems with the inclusion of reinsurance accepted when calculating the relevant percentiles for the technical provisions?

25. Do you have any views about the suitability and appropriateness of the methodology set out in this specification, and which were the major practical difficulties encountered? Do you have any suggestions about how to solve these problems?

26. Can you provide an estimate of the additional resources that are likely to be required (a) to develop appropriate systems and controls, and (b) to carry out a valuation each year in accordance with the methodology proposed here?

27. Are there any simplifications that could be made to this methodology without losing too much accuracy in the calculations?

28. What is your view on the use of different sources of data for calibration purposes: where should current market data be used, where published historical (statistical) data, and where company-specific or sectoral data, or professional judgement? What is the availability and reliability of those sources?

29. Finally, would you kindly provide some information about your current practices on the following areas: the extent of reporting of uncertainty of provisions to senior management, segmentation of portfolio used within the company, treatment of diversification for provisioning purposes.