Valuation Regulations Working Party

Discussion of working party's recommendations

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Valuation Regulations Working Party

- Adrian Cooper
- Michael Culligan
- Steve Gardner
- Peter Gough
- Angela McNally
- Eoin Murphy

What the working party was asked to do

- To **review the appropriateness of the Solvency 1 liability and asset valuation regulations** applying to companies licensed to write life assurance business in Ireland. Arising from this review, to **recommend changes to actuarial guidance, regulatory guidance and the framework regulations** for consideration by the Society of Actuaries and ultimately, the Irish regulatory authorities.

What the working party has done

- Surveyed Appointed Actuaries
  - on suite of changes mirroring 2006 changes in UK
- Focused on changes that could be implemented by amending actuarial guidance only
  - Of changes proposed in survey, WP’s report only recommends changes to expense reserving
- Addressed valuation issues related to reinsurance and the maximum interest rate
  - WP recommends changes to guidance in both areas
- Reviewed outcomes from 2000 VRWP report

Survey – the process we followed

- Issued to Appointed Actuaries: March 2009
- Responses received: end-May 2009
- 15 respondents in total
- Quantitative and qualitative elements
- Focused on a package of measures
- 4 respondents analysed each measure in isolation
- Confidentiality of responses was maintained

Survey – the feedback we received

- All respondents addressed four specific changes:
  - prudent lapses
  - recognition of commission clawback
  - portfolio level reserving for expenses
  - valuing contracts without SV guarantees as assets
- Responses were generally in favour
- Difficult to draw conclusions from aggregated data
- Limited review of standardised individual responses
- A number of other potential changes were mooted

Expense reserving – Irish approach

- General practice has been
  - to fully allocate all maintenance expenses down to the level of the individual policy i.e. to derive a ‘per policy’ maintenance expense assumption,
  - and then to calculate reserves on a policy-by-policy basis
- Derived from UK actuarial papers from the 1980s and 1990s?
  - Taken as defining “generally accepted actuarial practice”?
- But no explicit requirement in Irish legislation / regulations for this approach
  - 1994 Regulations
    - *“Provision ... on prudent assumptions for meeting the expenses likely to be incurred in future in fulfilling the existing contracts”*
  - ASP LA-3
    - Need to justify method if *“not in general use in the profession”*

Expense reserving – UK approach

- Historically similar to current Irish approach
  - But changed in 2006
- FSA led change
  - Consultation Paper (CP06/16) and Policy Statement (PS06/14)
  - Introduced split between attributable and non-attributable expenses
  - Key differentiating factor is whether or not expenses vary with volume of business
  - Only attributable expenses included in ‘per-policy’ calculations
  - Non-attributable expenses reserved for at level of Homogeneous Risk Group (HRG)
  - Note that implementing this change is optional for firms
- Impact: may result in lower expense reserves
  - Available margins on individual policies aggregated and applied against HRG-level expenses

Expense reserving – our work & conclusions

- Reviewed UK changes to consider if similar changes should be recommended in Ireland
  - Recommend that AAs be allowed to adopt UK-style approach (if desired and if considered appropriate to their business)
- Considered what changes (if any) would be required to Irish legislation and professional guidance
  - No need to change Regulations but additional guidance needed
- Considered practical impacts of making these changes
  - Recognise that some modelling changes may be required
  - But, change is optional so AAs can conduct cost/benefit analysis
- Attempted to quantify impact of changes
  - Survey of AAs

Expense reserving – proposed methodology

1. Segment portfolio into HRGs
   - HRGs should comprise policies with similar expense characteristics
   - Consider all risks that impact on expenses borne by contracts e.g. persistency risk

2. For each HRG, identify attributable and non-attributable expenses
   - No hard-and-fast rules – will depend on firm's operational model
   - Attributable includes those directly attributable to individual contracts (e.g. commission) as well as those that vary with volume (e.g. TPA fees)
   - Non-attributable will typically comprise HRG-level overheads plus a share of company-level overheads

Expense reserving – proposed methodology

3. Derive suitable allowance for non-attributable expenses for each HRG
   - Quantify total non-attributable expenses for each future projection year
   - Will require both open and closed fund projections
   - Will require both zero lapse and prudent (non-zero) lapse projections

4. Calculate individual policy reserves
   - As currently done, but only including attributable expenses

5. Calculate projected “available margins” for each HRG
   - Take positive net cash flows that are “left over” after Step 4.
   - Schedule of projected cash flows
     - Central basis / Different lapse assumptions / Resilience tests

Expense reserving – proposed methodology

6. Calculate HRG-level reserve for non-attributed expenses
   - Use standard unit-linked DCF reserving methodology
     - Essentially like one large policy with income as derived in Step 5 and expenses as derived in Step 3

7. Calculate total expense reserve
   - Sum of individual policy reserves from Step 4 and HRG-level reserves from Step 6

- Other comments
  - Description above assumes just one level of HRG
  - In principle, could have hierarchies of HRGs
    - In which case, multiple iterations of Steps 5 and 6

Expense reserving – changes needed?

- Changes needed to 1994 Regulations?
  - In our view helpful (for “avoidance of doubt”) but not required
  - Nothing in 1994 Regulations precludes the use of the new method
- Changes to professional guidance
  - New method requires additional guidance for Appointed Actuaries
  - We recommend amendments to ASP LA-3
    - Largely mirror equivalent UK guidance
  - Suggested wording included in Appendix 3 of our report
    - New paragraphs 3.5.7 and 3.5.8
    - Cover attributable vs. non-attributable and choice of suitable HRGs
- Other
  - Recommend that AAs document and justify choice of HRGs (private)
  - Recommend disclosure of expense assumptions in Schedule 4 Reports

Reinsurance - overview

- Current guidance:
  - ‘Take account of likelihood of payment’ when valuing benefits from a reinsurance contract; *but*
  - Guidance does not elaborate on factors to consider
- Appointed Actuary should be satisfied that
  - there are sufficient margins for prudence to cover net benefits; and
  - a prudent allowance for the risk of reinsurance impairment or default
- Our report lists factors to consider:
  - The VRWP is recommending that actuarial guidance be strengthened to take account of these factors

Reinsurance – Factors to take into account

- Factors to take into account when valuing benefits from a reinsurance contract:
  - Probability and severity of reinsurer default or other impairment
  - Credit support arrangements
  - Assets held to support required solvency margin (RSM) arising from restrictions on credit for reinsurance cover in the RSM calculation
  - Margins for prudence in net reserves for reinsured benefits

Maximum Valuation Rate of Interest – Issues Identified:

- Risk free rates
  - The yield on assets must ‘have regard to risk free rates’, however risk free rates are not defined
  - There are different views on what risk free means (eg swaps, AAA sovereign debt)
  - Not yet clear where European developments will end
- Yield on bonds must be reduced to reflect risk

Spread on bonds	Take credit when valuing liabilities	Reference in guidance
Premium for expected defaults	No	Yes
Premium for unexpected defaults	No	Not explicitly. Recommend guidance is strengthened.
Liquidity premium	Possibly	Not necessary?

  - Adjust yields of sovereign Irish bonds for default?
- Reinvestment rate
  - Maximum valuation rate of interest <= adjusted yield on existing assets
  - This cap arises even if the reinvestment rate is high.

Valuation Rate of Interest: Yield on certain assets

Fixed interest securities	**Gross redemption yield**
Other investments	**Ratio of income in 12 months after valuation date to value of investment**

- Options
  - Options are commonly used to mitigate risks but can adversely impact a Company's statutory financial position
  - For example, at-the-money swaptions would have a valuation yield of 0%
    - This would increase the minimum reserve for liabilities backed by swaptions
- Zero coupon deposits
  - Not clear that zero coupon deposits meet the definition of fixed interest securities in the Regulations.
  - A reasonable approach would be to use the gross redemption yield on zero coupon bonds of the same term
- Inflation linked bonds
  - Can be structured so that either the nominal increases or the coupon/redemption rate increases
  - Different classification depending on the structure despite the structures being economically equivalent
  - Again a reasonable approach would be to use the gross redemption yield for both

Review of 2000 VRWP report

- Recommended changes to *regulations* were not implemented
- Most of the recommended changes to guidance are now in ASP-LA3
- Proposed changes to guidance were not implemented in relation to:
  - Permitted links for unit-linked funds; and
  - derivative asset admissibility
  - 2010 WP recommends expanding actuarial and regulatory guidance to address these issues

Summary of 2010 WP recommendations

- Expense Reserving (the key recommendation)
  - Appointed Actuaries may move to a methodology that operates at the level of 'homogeneous risk group'
- Reinsurance
  - Guidance should provide greater detail on factors to take into account when valuing reinsurance offsets to reserves
- Valuation Interest Rate
  - Practical approach suggested to address existing valuation anomalies in relation to specific assets
  - Expand guidance on adjusting yields for default premium
- Carry-over from 2000 VRWP Report
  - Expand guidance on permitted links and derivatives

Questions & Answers