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Mr Henrik Bjerre Nielsen
Chairman
CEIOPS

Dear Henrik

Steering Group on Technical Provisions
Calculation of the Best Estimate for Technical Provisions

Further to your letter of 23rd May 2006 and your request for guidance on best estimates of insurance liabilities we are pleased to submit our responses. The responses have been prepared by the Steering Group in full collaboration with our Working Groups Life and Non-Life and are issued to you on behalf of the Groupe Consultatif.

We believe that the Solvency II project has important potential benefits for the insurance industry within the European Union and for the broader public as stakeholders in that industry. In this context we welcome your invitation to us to offer guidance on actuarial aspects of the project.

If you identify any points that you wish to pursue further, please do not hesitate to contact the Steering Group. We will be pleased to develop these ideas further with you.

Abbreviations used

CEA – (Comité Européen des Assurances) European Insurance and Reinsurance Federation

GC – Groupe Consultatif Actuariel Européen

IAA – International Actuarial Association

IAIS – International Association of Insurance Supervisors

IASB – International Accounting Standards Board

OTC – ‘over-the-counter’ (non-traded)

Placeholder approach – Placeholder approach to best estimate provisions in QIS2 specifications

(Annex 2 of above mentioned letter)

SCR – Solvency Capital Requirement

UKAP – The Actuarial Profession in the United Kingdom

Introductory remarks and comments

The Council Directive¹ stipulates in Art. 56ff that technical provisions must be such that an undertaking can meet any liabilities arising out of insurance contracts as far as can reasonably be foreseen. It requires undertakings to hold enough financial resources to cover not only all future costs, but also margins, which one could call “prudence margins”, arising from non-discounting, discounting with a prudently estimated rate or other prudence assumptions. Solvency II intends to make these requirements more transparent by requiring technical provisions to consist of best estimates of all future discounted cash flows plus a risk margin. In addition, solvency capital must be established (SCR) in order to cope with potential future deviation of the actual costs from the expected value of the costs.

The Council Directive requires that for life assurance the computation should be made annually by an actuary or other specialist in the field on the basis of recognized actuarial methods (Art. 59, 2). In its letter to CEIOPS of 1 February 2006, GC has suggested to require the same or similar for non-life insurance. As non-life insurance requires at least as much actuarial knowledge as life assurance does, GC reiterates the importance of actuarial scrutiny by a suitably qualified, e.g. by training, experience etc., professional when assessing non-life technical provisions and proposes to CEIOPS to make it a requirement in Solvency II. The placeholder approach set out in your letter repeats the sound principles of the Council Directive detailing which expenses and costs are to be considered when setting technical provisions. One needs to comment that “rent for capital”, unlike other expenses like salaries, rent for office buildings or taxes to name a few, is not recognised as a cost factor in the placeholder approach. Instead it stipulates to add to the best estimates of all costs, except capital costs, a risk margin. The European Commission’s recently published Amended Framework for consultation on Solvency II proposes two alternatives for calculating the risk margin, a Percentile approach and a cost-of-capital approach, which will be considered as working hypotheses.

All answers in the following unless otherwise stated refer only to best estimate without either costs for capital or any other risk margin. The best estimate of technical provisions is defined in the placeholder approach as the “expected present value of all future cash flows [realistically attributed and based on company own analysis of expenses to an in-force insurance policy or portfolio]”.

Issues in respect of non-life insurance

1. *Advantages and disadvantages of standard approaches to deriving the best estimate applicable for small and medium sized firms*

Whatever the method used by the different companies and independently of their size, we strongly support that all insurance companies should be in a position to make the judgement as to what would be an appropriate method given the availability of data and the nature of the business and should justify the approach taken to the calculation of their best estimate. We recommend that insurance companies must be able to prepare systematically an (actuarial) reserving opinion stating: underlying assumptions, methods used, reliances and limitations as well as year by year monitoring and controlling.

The use of many well-known methods (such as development of triangle methodology with Chain-Ladder, Bornhuetter Ferguson, etc.) requests data which is stable, reliable and

¹ Council Directive of 19 December 1991 on the annual accounts and consolidated accounts of insurance undertakings (91/674/EEC)

reconcile to the financial statements. Therefore insurance companies should be required (at the latest after the Directive has been implemented) to build up historical data in particular triangle information on paid and incurred claims – this would gradually improve quality of data. Where it is applicable to use triangle methodology different variations are de-scribed in the actuarial literature. We are happy to provide appropriate references if required.

The actuarial literature and practice provides guidance but also highlights the dangers of any method used, triangulation based one or different approaches which include use of benchmarking, ratios, exposure methods, frequency & severity estimations, naïve premium assumptions (e.g. expected loss ratio times the expected premium), etc. We are also happy to provide references in that respect.

Standardised methods, as we referred to in our letter dated 1 February 2006, can only be used on a provisional and short term basis but would never replace an actuarial judgement. We do not suggest a standard method which has to be used by all companies, especially not by those who have actuarial knowledge and stable and reliable data. The Steering Group is fully aware that it presents the same danger as the benchmarking mentioned above. However, we think that if some companies have no actuarial data and resources for the first Solvency II exercise it is better to have local Working Groups including local market actuaries trying to find common proxies if possible (for example based on local published information) rather than leave the local authorities dealing with it alone. Of course if the local Working Group's conclusion is that no standard can replace a specific calculation, the conclusion will be delivered as such for those companies.

2. *Disaggregation by lines of business*

Specifying standard lines of business like in QIS2 which follows the Council Directive Article 63 is a matter of practicality. Firms should consider the best grouping to use for their reserving analysis, taking into account homogeneous grouping but with sufficient data. The statistical methods used for setting technical provisions give better results, i.e. results with lower error bounds, the more independent, but homogeneous risks or claims are assembled in a sub-portfolio. In practice though the uncertainty of parameter estimation is a more important factor to consider than the theoretical advantage of large size and homogeneity of the considered risks or claims. We believe that it is important to align the analysis with the way the firms run their business. For reporting purposes however this will subsequently need to be mapped against the groupings defined within Article 63 of the Council Directive. No further advice can be given here than reiterating that only actuarial knowledge and judgement will allow the professionals to group an undertaking's portfolio into sub-portfolios that can be measured best possible.

The further questions regarding diversification and the appropriate aggregation method are less relevant for best estimates. The only non-linear element when aggregating best estimates stems from measurement errors, otherwise mathematical expectation behaves linearly.

Diversification effects can arise with either the 75 percentile or the Cost-of-Capital (CoC) method for setting risk margins, if one compares the sum of the risk margins calculated separately for each sub-portfolio with the risk margin of the entire portfolio.

3. *Allowance for reinsurance ceded*

GC acknowledges the difficulties that arise when using development triangles for claims net of reinsurance when reinsurance programmes are complex and changing, but cannot offer a

simple solution to this problem. Actuarial judgment will have to be applied in each situation concerning the best approximation to (gross and) net technical provisions, considering the particular reinsurance programme. Generally it is considered best practice to estimate the best estimate gross of reinsurance as a starting point.

4. *Importance of premium provisions*

CEIOPS asks for advice on methods to obtain best estimate valuations for premium provisions. Provisions for unearned premium or unexpired risk should obviously be set at the best estimate future cost arising from the insurances still in force within the portfolio, although it currently may not be allowed full recognition (see below). This value should be the same, save commissions, initial expenses, premium taxes etc. and possibly some profit elements, as the premium the undertaking would charge for these insurances. In most cases the best method to determine unearned premium provision will be the pro rata reserving of the premium net of already consumed cost elements. Actuarial judgement will have to determine material exceptions in the individual situation, e.g. seasonal effects.

The current practice is:

- The result of the valuation for premium provisions above is compared to the accounting systems that typically supply the unearned premium provision.
- If the result of the valuation is below the unearned premium provision the profit is currently not recognised up front, although this may change under IFRS.
- If the result of the valuation is higher than the unearned premium provision an unexpired risk reserves would be required.

There are issues whether the unexpired risk should be dealt with at a line of business basis or at an entity level. In addition it is an open question whether different approaches will be acceptable for reporting for solvency and within the statutory accounts. We agree with CEIOPS that provision for unearned premiums as well as claims provisions should be considered for Solvency purposes but if current practice is continuing, solvency capital must be reduced by unrecognized profit within premium provision as described above (a procedure one should try to avoid as it decreases transparency).

5. *Large losses*

Judgement needs to be applied by the firm as to whether large losses and extreme events get analysed. There are two possibilities: Either separately or together with the remaining claims depending on the circumstances. The consideration of how large losses are defined in the first place is important, and would in some cases be driven by the reinsurance programme in place. However valuation actuaries will have to determine their own definition of large and exceptional claims which they feel necessary to treat separately based on their actuarial segmentation in order not to disturb their assessments.

In addition the solvency regime needs to consider prospective future large losses, which we believe would be part of underwriting risk within the SCR (taking the appropriate time horizon into account).

6. *Inflation*

When using triangulation methods, one needs to assess whether the future claims inflation is expected to be significantly different to the past, and if so an explicit allowance may be required.

We also would highlight that a strong knowledge of claims department practices is necessary when using such factors. (For example: Do they already take inflation into account?)

These statements are true for any assumptions derived from past claims developments.

Issues in respect of life insurance

Member associations of the GC, together with the IAA and other actuarial associations, are active participants in the parallel projects taking place at the initiative of the IAIS. CEIOPS will be aware of work in progress on the part of the IAA addressable to both the IAIS and the IASB. This response on issues in respect of life assurance draws upon the present state of progress of IAA work and specifically the current draft paper "*Present value of expected cash flows in the measurement of insurance liabilities and insurance assets*". The GC believes that CEIOPS should formally consider this work when published, but is also happy to offer the present response to the specific questions raised by CEIOPS at this stage.

7. Longevity assumptions

GC agrees with the substance of the current IAA draft as follows:

"The trend

Because mortality rates change over time, it is important to account for this in setting assumptions for estimates of expected cash flows. For centuries and especially in the 20th century, life expectancies have increased (mortality rates decreased). For most insured populations, life expectancies are expected to continue to increase in the future. A significant question is how fast the mortality rates will decrease and for how long. The historical decrease in mortality rates has been a result of positive and negative forces affecting the health and mortality of humans. The change in mortality in the past has been mainly caused by a combination of several types of factors, sometimes positive (+) and sometimes negative (-), including:

- Medical developments (+)
- Environment (+ or -)
- Behaviour (+ or -)
- New diseases (-).

For insured populations, mortality rates are also affected by improved underwriting methodologies that allow insurers to adjust to the negative effects of the items noted above.

The rate of change in mortality was and is not expected to be constant. Several changes in trends have occurred, even periods of increasing mortality rates, such as experienced in some countries for males at some age groups (45-75) between 1955 and 1975. This "hump" was caused by three negative drivers of change: increased frequency of heart disease, (lung) cancer due to smoking and traffic accidents.

Mortality rates experienced during the mid-1970^s declined because of medical developments and behavioural changes. Another example was the increase in mortality rates caused by the AIDS epidemic in certain countries for certain ages and genders in the late twentieth century.

These and other likely factors can make it difficult, if not impossible, to predict future mortality, certainly over a long period of time. Several methods to predict mortality have

been used, most based on an analysis of historical data, sometimes in addition supported by expert opinions.

Very detailed models have been constructed that can be classified in the following manner:

- By cause of death. Problems with this approach include: new causes of death are ignored, a lack of sufficiently detailed and accurate data results in difficulty in developing such estimates over long periods, and just because certain patterns in these causes have existed in the past, does not imply that they will continue.
- By structure. A mortality table can be partitioned into 3 or 4 age segments: child mortality (decreasing by age); aged portion (exponentially increasing); relatively constant accident causes (except for certain age groups such as young males) and a sickness part (gradually increasing by age). This model requires a very detailed dataset base.
- General model. Independent of causes of death, historical experience trends are extrapolated into the future. Future changes in trends can be ignored.
- Expert opinion. Experts can provide their opinions regarding the level and period of future trends in the aggregate or by certain demographic segments. The problem usually encountered is that rarely do two experts arrive with the same conclusions.

In practice, combinations of these four models are often used. For example, a calculation might be based on a general model, but validated with expert opinions and adjusted for changes in underwriting policy.

Just as is the case with other assumptions, the validation of the reasonableness is important. Do the future levels and relativities in tables look reasonable? A simple application of a statistical formula may not provide reasonable results. The results might be compared with other published relevant results. If appropriate, it may be important to compare the results from nearby countries in a relatively homogeneous geographical region, as in most cases they should not be expected to be significantly different.

It is usually better to evaluate historical trends in raw whole population tables as the underlying experience tends to be more homogeneous over time and is of greater size. The use of industry tables or product specific tables to establish trends is often quite difficult, in part because changes in underwriting procedures over the period studied and changes in the mix of the insured population affects the comparability of results over time. Such changes often overwhelm or hide relevant underlying trends. Also, the use of smoothed tables based on Makeham or Gompertz models to estimate trends is not recommended – these models can spread special circumstances only applicable to a certain age group over the entire table. Nevertheless, alternative approaches exist where the structure of the mortality table remains intact (see for example NAAJ vol. 6 no. 2²). Even when a satisfactory set of mortality trend factors are developed, the question of the time that they should be applied needs to be addressed. Should they apply forever, or grade down after a period of time, such as ten or twenty years?

² Henk van Broekhoven: Market Value of Liabilities Mortality Risk: A practical model, The North American Actuarial Journal, Vol. 6, no. 2, 2002.

Inadequate data available to develop a reliable trend analysis

The ideal situation to develop an acceptable trend assumption is to rely on annual population mortality tables relevant to the risks for which the insurance liabilities and reinsurance assets relate. To estimate significant changes in trend, a sufficiently credible set of information is normally needed. This can be difficult for many general population data tables which might be constructed once every, for example, 10 years, and is very dependent on accurate and complete recording of both death statistics and population censuses. If this problem exists in a country, indications of significant changes in trend may be available from nearby countries with similar mortality experience. It is important to use experience from a local region with a similar demographic mix to the local country to which the trend will be applied. A local trend might be able to be derived for a period during which a change in trend was identified in the other country. Otherwise, the last trend that can be reliably derived from the local data might be used.”

The GC notes that annual mortality tables are available in almost all of the EU countries (with considerable delays in some cases), which makes it easier to do an analysis based on population statistics.

The GC also notes that the historical analysis above is not fully true for some of the new EU countries where mortality was stable through the 1980's and made a sharp increase around 1990 and has thereafter started to return down to the situation before 1989.

The foregoing analysis describes population trend reflecting the impact of multiple influences. The GC believes that firms should be required to consider the implications for their trend assumption of the particular composition of their own risk portfolio. For this purpose composition may include the mix of assurance, annuity, and other biometric risks, the mix by age, occupation, lifestyle and other potentially relevant factors.

The GC also believes that it may be reasonable for firms operating in multiple European Union jurisdictions to include in assumptions a gradual convergence of age-specific mortality and life expectancies within the population resident within the Union. The pace of such convergence deserves to be reconsidered having regard to any future changes in membership of the EU.

Trend uncertainty is not relevant to measurement of expected cash flows but is relevant to consideration of risk margins. Irrespective of any stipulated basis for calculation of risk margins, the GC believes that total portfolio mix (i.e. embracing mortality exposure as well as longevity exposure) should be a factor in the calculation.

8. Distinction between hedgeable and non-hedgeable risks

The GC believes that technical provisions should be calculated such that:

- Cash flows which can be associated with replicating assets priced observably allowing market-consistent valuation should be so valued; and
- Other cash flows should be valued in accordance with the principles outlined in the IAA paper referred to in the introduction. In order to determine technical provisions, this latter value should be increased by a risk margin calculated according to procedures yet to be defined.

The GC believes that some room must be allowed for professional judgement as to whether a set of cash flows is in fact able to be hedged or associated with a replicating asset. Exercise of judgement in this dimension should be subject to supervisory review procedures.

The GC notes that it is market observability which is of key importance. Considerations of market liquidity and depth can be covered by required capital.

Very broadly, the principal hedgeable risks usually will be interest rate risk, equity market risk, and some catastrophe risks.

The calculation of liabilities on bases combining market consistent valuation of some elements together with best estimates for others is already a requirement in some jurisdictions and the GC commends guidance notes GN45 and GN47 (originally published by the UKAP and now the responsibility of the UK Board for Actuarial Standards) as very useful sources in this respect.

9. *Financial guarantees and other embedded options*

The GC acknowledges that many, if not most, investment-oriented contracts of life insurance are in financial terms sets of options. Some may be complex options, although no more so than complex options routinely written by banks operating in the OTC marketplace. The GC shares CEIOPS concern that deterministic techniques, which generally do not allow for the time value of options, generally are not appropriate to establish provisions on a market-consistent basis.

The GC agrees with the discussion on policyholder behaviour assumptions within the IAA paper referred to in the introduction and quoted in response to Q10 below. Specifically the GC believes that 'rational' policyholder responses to potential changes in financial conditions must be considered separately from the distribution of possible behaviours in unchanged conditions. The GC considers that firms should be required to model 'rational' behaviour in order to value options and guarantees. 'Rational' is intended to convey that some rather than all policyholders act rationally, although an increasing proportion may be expected to do so. A good analogy is modelling of repayment behaviour in relation to mortgages.

The GC considers that as a practical matter a distinction can be drawn between financial and other options, with a more approximate approach being taken to the latter along the lines discussed in response to Q11.

The GC is doubtful as to whether proxy solutions or simplified approaches are feasible, given the heterogeneity of products and portfolios in most jurisdictions. It is aware of commercial products developed by competing vendors in order to facilitate market-consistent modelling of liabilities. The UKAP guidance notes referred to in our response to Q8 (particularly GN47) will be helpful.

The GC is however aware that in some jurisdictions there is more homogeneity of liability portfolios than in some others. To that extent, the GC would be prepared to work with CEIOPS in co-ordinating the development (jointly by national supervisors and national associations of firms and actuaries) of simplified closed-form solutions which might be appropriate to a particular national context.

10. *Valuation of discretionary future benefits*

The GC is of the view that a liability should be established in respect of discretionary benefits and shares the view of the IAIS that to treat these as equity would misrepresent the financial position of the firm.

The GC believes that the liability in respect of discretionary benefits should be distinguished from the liability in respect of benefits in relation to which no discretion exists.

The GC considers that interpretation of the extent of discretion available to firms is a complex function of tradition, statute and case law particular to each member state. The underlying issues are more of a legal rather than an actuarial matter.

The GC is aware of the k-factor approach proposed by CEA. The GC considers that this approach may be workable provided CEIOPS can agree an approach whereby a consistent set of national k-factor methodologies can be developed reflective of the differing legal contexts.

11. *Surrender values*

The GC agrees with the discussion of this subject in the draft IAA paper referred to earlier as follows:

11. “Policyholder behaviour assumptions.

The effect of policyholder options are important to reflect in quantifying the expected value of future cash flows. If the measurement of the expected value of future cash flows are unconstrained by accounting standards (some accounting system do not permit certain policyholder behaviour assumptions), it would be appropriate to reflect the effect of these options in the measurement of the liability. Options available to the policyholder can include the termination of a contract (discontinuance rates), payment of renewal premiums (both required and optional), use of non-forfeiture benefits, guaranteed insurability, or other options of a contract, including guaranteed living benefits such as annuitization, guaranteed insurance options, partial withdrawals, and guaranteed income benefits. They may be particularly affected by other assumptions and contract features, including being sensitive to interest rate levels or option costs such as surrender charges.

11.1 Extent of rational behaviour expectations

- 11.1.1 Based on observation, not all policyholders behave in a rational financial manner. In derivation of expected assumptions, the extent of rational behaviour can be limited. For instance, even though insurance or investment guarantees are significant, certain policyholders will lapse in any event due to a wide range of reasons, including changes in their individual circumstances that the insurer will never be able to identify, or the existing policy will be exchanged for another that a producer of another company presents to the policyholder. In addition, although possibly currently financially unsound, because of the fear of lack of current or future insurability or focus on future contractual guarantees that might not currently be in-the-money, policyholder behaviour, particularly on an individual basis, can be difficult to estimate.

11.1.2 Customer service level or perceived brand value, both entity-specific factors, can influence many policyholder behaviours.

11.2 Discontinuance rates

11.2.1 For most contracts, contract discontinuance assumptions will be made since the entity is exposed to risk from the potential use of the policyholder options to withdraw or persist, and if termination is decided upon to select the timing or the amount of such contract termination. Discontinuance can take the form of ceasing premium payments (this does not mean that the reporting entity's liability is necessarily eliminated at that time) or terminating the contract. Discontinuance may give rise to the payment of surrender or transfer values, to the exchange for a paid-up policy, to a lapse without value or in other manners.

11.2.2 The following considerations can affect the selection of expected assumptions for future discontinuance experience. Most of these factors are portfolio- or entity-specific, with the exceptions of the effect of contract features, policyholder characteristics, and overall conditions of the market or overall industry.

- Benefits and options provided;
- Contract duration or attained age;
- Premium frequency and payment method;
- Premium paying status;
- Size of contract;
- Relative advantages of lapse/withdrawal and persistency to the policyholder (e.g., insurability);
- Surrender charges and/or persistency bonuses;
- Sophistication of the policyholder and intermediary;
- Competitive situation for the product;
- Claims management practice, particularly for non-life coverage;
- Interest rate scenario and other economic factors (relative to so-called "interest sensitive contracts");
- Insurer behaviour and decisions, e.g., service level provided, non-guaranteed elements credited or charged, interest rate credited compared to that available elsewhere;
- Distribution system and other marketing practices applied; and
- Expected changes in aggregations as a result of changes in the entity's portfolio mix.

11.2.3 To determine the surrender value or transfer value payable on withdrawal, the following will usually be taken into account:

- Market assumptions assumed in the projection;
- Any guaranteed surrender or transfer value scale; and
- Constructive obligations incorporated within the contract.

11.2.4 Discontinuance experience normally will have a significant effect on overall profitability to the issuer for many investment contract types. Relevant and reliable discontinuance experience is used to the extent practical. In the absence of reliable experience data for the class of risk under consideration (e.g., new products or later durations in the policy), other comparable sources would

normally be considered. This assumption usually has to be entity-specific, reflecting other factors, including product and usually age differences as well.

11.3 Other optionalities

11.3.1 The expected cash flows of a contract may be affected by the use of policyholder options.

11.3.2 The most common is future premium payments or deposits, including the mode of premium payments.

11.3.2.1 These premiums or deposits may be regularly scheduled or the amount and timing of which can be flexible, e.g., many universal life contracts.

11.3.2.2 These are generally not under the control of the insurer, so may be considered by some accounting systems as intangible embedded assets. However, in many cases they are recognized in the measurement of expected future cash flows anyway, as they may be considered an integral part of the contract of insurance.

11.3.3 In many cases, the effect of the use of these options is asymmetric in nature. Although closed form solutions may be available, a set of representative or stochastically generated scenarios may be appropriate to use in the calculations involved.

11.3.4 Depending on the expected cash flows, the effect of this behavior can be restricted by the form of contract. For example, depending on the financial reporting rules, renewal of one-year contracts may not be recognized (except in acquisition accounting), although the probabilities may be the same as if the contract was written in a perpetual form (with or without conditions).

11.3.5 The effect of deductibles, coinsurance or experience rating arrangements on expected claims experience.”

As implied in the foregoing discussion, the GC believes that assumptions as to future discontinuance behaviour should distinguish between:

- Expectations as to behaviour in the context of unchanged financial conditions from those prevailing at the date of measurement of the liabilities; and
- The potential for variation in behaviour in response to changes in financial conditions. (see answer to Q8 above).

Experience will likely be the best guide to reasonable assumptions as to behaviour in unchanged financial conditions. Experience should not however be followed blindly and firms should be required to consider both any secular trends and the realistic probability of step changes which might influence discontinuance behaviour.

Issues common to both non-life and life insurance

12. Allowance for potential reinsurance failures

CEIOPS asks for advice how one could allow for non-performing reinsurance within the net best estimate. As some possible causes it lists insolvency or unwillingness of the reinsurer or erroneously drafted reinsurance agreements, which do not fulfil the obligations that they are

expected to. Gross minus net technical provisions could be called “amount of reinsurance under risk”. We would expect the impact of non-performing reinsurance on the best estimate, i.e. the expected cost caused by non-performance, to be small, say in the area of at most a few per mille of the amount of reinsurance under risk (see below). An individual undertaking’s risk of non-performing reinsurance, i.e. the unexpected impact, might of course be larger, but that has to be dealt with within the SCR, which should include the impact of non-performing counterparties. In the future we believe the treatment needs to be considered in the context of how credit risk is taken into account within the SCR calculation in order to avoid double counting (areas to consider include reinsurance failures, contract uncertainty as well as unwillingness to pay).

The estimated impact on best estimate of at most a few per mille of the amount of reinsurance under risk is arrived at as follows in the case of insolvency of a professional reinsurance only reinsurer. The other cases can be dealt with similarly. Take all claims reinsured with one reinsurer. The probability of default of that particular professional reinsurer, leaving a shortfall of assets, in one of the next years is far below 1% per year, but let’s take 1% for illustrative purposes. A good average duration of a claims’ portfolio is, say, 5 years, such that in the average about 5% of the amount at risk can be affected by the impact of a reinsurer’s insolvency. Reinsurance claims should have the highest ranking at a professional reinsurer. Loss given default can therefore be expected low, say, 10%. The two assumptions together amount to an expected cost due to reinsurer insolvency of 0.5% of the amount of reinsurance under risk.

Taking for the amount of reinsurance under risk as in the average 20% of gross technical provisions (not untypical for non-life), the impact of reinsurance non-performance on best estimate net technical provisions would be 1.25 per mille in the demonstrated situation, in fact a negligible proportion.

The treatment today varies country by country. Reinsurance bad debt provision may be a separate balance-sheet item and follows accounting conventions, rather than being assessed when a holistic view of overall technical provisions is taken.

Summary comments

We would be happy to assist CEIOPS with the development of guidelines and principles for best estimate reserving.

In addition we would be happy to comment on any “proxy calculation methods” that CEIOPS may suggest, by making observations why they are used and on their merits and demerits.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Rolf Stölting', with a stylized flourish at the end.

Rolf Stölting
Project Manager, Solvency II Project