



Banc Ceannais na hÉireann  
Central Bank of Ireland

Eurosystem

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# Consultation on Requirements for Reserving and Pricing for Non-Life Insurers and Reinsurers

## Consultation Paper CP 73

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## Consultation Paper 73: Requirements for Reserving and Pricing

### Background

The requirement to submit a statement of actuarial opinion (“SAO”) to the Central Bank of Ireland (then the “Financial Regulator”) was originally introduced for non-life insurance companies (“non-life insurers”), on a non-statutory basis, in 2001. SAOs for reinsurance companies (“reinsurers”) were introduced for year-end 2006 as a condition on the authorisation of reinsurance companies and set down in the requirement papers for reinsurance companies under SI No. 380 of 2006 (European Communities (Reinsurance) Regulations).

This consultation paper contains a number of changes which the Central Bank of Ireland (“Central Bank”) proposes to introduce in order to strengthen our supervisory framework, including: (1) the imposition of Requirements on a statutory basis for non-life insurers and reinsurers which in turn imposes: (i) a requirement to submit a SAO to the Central Bank; and (ii) requirements in respect of the SAO regime and the governance of reserving, including requirements for the internal audit function of such companies; and (2) the prescription of the signing actuary role as a Pre-Approval Control Function (“PCF”).

### Requirements for Reserving and Pricing

1. The purpose of the Requirements is to improve the existing regime in areas of relevance to pricing and reserving, so as to provide assurance that non-life insurers and reinsurers are maintaining appropriate reserves. The Central Bank also proposes to impose requirements on non-life insurers and reinsurers in respect of their governance structures in order to ensure that such companies have appropriate governance structures in place in relation to reserving.
2. The Requirements will impact on the work of Signing Actuaries, Internal Auditors and the Board of Directors of non-life insurers and reinsurers. They will also have implications for the SAO.



### **The Signing Actuary Role**

3. The Central Bank proposes to prescribe the Signing Actuary role as a PCF. Individuals will require the prior approval of the Central Bank before they can be appointed to the function of Signing Actuary. All PCF's are subject to the Central Bank's Fitness and Probity regime, including its power to investigate, suspend or prohibit a person where appointed.
4. In order to be approved by the Central Bank in the role of Signing Actuary, a candidate must demonstrate the necessary experience and knowledge required to carry out this role.

### **Guidance on Best Estimate / Risk Margin**

5. Included in Appendix 3 is guidance on the proposed definition of the best estimate and risk margin.

### **Legal Basis**

6. The prescription of the Signing Actuary as a PCF will be made pursuant to a statutory instrument enacted under Section 22 of the Central Bank Reform Act 2010.
7. The remaining Requirements will be introduced on a statutory basis.
8. In addition, the Central Bank is of the opinion that compliance with these Requirements is necessary to institutions' compliance with the following:
  - a. Article 10(3) of the European Communities (Non-Life Insurance) Framework Regulations 1994 (S.I. No. 359 of 1994); and
  - b. Regulation 20 of the European Communities (Reinsurance) Regulations 2006 (S.I. No. 380 of 2006).
9. To the extent that an institution is obliged under the Requirements to submit returns and information to the Central Bank, such information and returns shall also be required under Section 22 of the Central Bank (Supervision and Enforcement) Act 2013 as applicable.

10. The Requirements may be amended or supplemented by the Central Bank of Ireland from time to time.
11. A failure to comply with the Requirements may expose a non-life insurer or reinsurer, and/or the management thereof, to a number of consequences including criminal prosecution, administrative sanction and/or revocation of authorisation.

### **Proposed Scope and Implementation**

12. It is proposed to apply the Requirements to all non-life insurers and reinsurers authorised by the Central Bank. However, captive non-life (re)insurance companies and other non-life (re)insurance companies with short tail business, not including motor insurance, may apply to the Central Bank, on an annual basis, for an annual derogation from the requirement to prepare an SAO.
13. The Central Bank is conscious that institutions may need time to implement changes to systems and structures in order to ensure compliance with the Requirements when they are finalised and implemented. Therefore, it is proposed that non-life insurers and reinsurers will be required to be in full compliance with the Requirements for Financial Years ending 31 December 2014 and thereafter. Furthermore this Consultation Paper should not have any impact on current SAO requirements.

**Purpose of Consultation**

14. The purpose of this consultation is to obtain comments on the draft Requirements attached at Appendix 1 which includes the introduction of a harmonised requirement to provide a SAO for non-life insurers and reinsurers, and on the prescription of the signing actuary role as a PCF.
15. While the Central Bank is consulting on all the proposals contained in this Consultation Paper, it would welcome stakeholders' views in particular on the following:
  - a. The proposal to designate the role of Signing Actuary as a PCF role;
  - b. The proposed Requirements;
  - c. The guidance on Best Estimate and Risk Margin;
  - d. Issues which should be considered by Boards when setting risk margins; and
  - e. The circumstances in which a company may request an exemption from the requirement to produce an SAO. Limited extensions to the current exemption criteria could be considered, for example, to apply to companies which are in run-off, or which have transferred their liabilities immediately following the financial year-end.

**Making Submissions**

16. Please make your submissions as a Word document or a pdf document by email on or before 10 December 2013. We intend to make all submissions available on our web-site. We shall not publish any information which we deem potentially libellous or defamatory.
17. Submissions should be marked "Consultation Paper 73" and sent by email to [insurance@centralbank.ie](mailto:insurance@centralbank.ie).

18. Written responses should be sent to:

General Insurance Supervision Division  
Central Bank of Ireland  
PO Box 11517  
Spencer Dock  
North Wall Quay  
Dublin 1

**General Insurance Supervision Division**  
**Central Bank of Ireland**  
**17 September 2013**

## Appendix 1: Draft Requirements for Reserving and Pricing

### Introduction

1. The purpose of these Requirements is to improve the existing regime for reserve adequacy in non-life insurance companies (“non-life insurers”) and reinsurance companies (“reinsurers”) (or “Company” or “Companies”). Since 2001, this regime has centred on the role of the signing actuary (“Signing Actuary”). This role involves a Signing Actuary producing a statement of actuarial opinion (“Statement of Actuarial Opinion” or “SAO”) which certifies that the booked reserves of the company are greater than the Signing Actuary’s best estimate of the company’s liabilities, as at the year end.
2. These are the minimum Requirements which companies are required to comply with in respect of the preparation and submission of a SAO. While the Signing Actuary is an important source of expert advice on technical matters, the board of directors of a company (“Board”) retains primary responsibility for the governance of the company, its viability and its reserves and shall not abrogate its responsibilities in relation to reserving to the Signing Actuary.
3. The Board shall take whatever steps it considers necessary in order to ensure that the information and analysis provided by the Signing Actuary to the Board is accurate and has been sufficiently challenged.

### Definitions

**Statement of Actuarial Opinion(SAO)** is a statement provided by a signing actuary giving an independent view of the adequacy of a Company’s reserves.

**The Report underlying the SAO** is a detailed report reviewing all relevant company data from which the signing actuary has come to a determination regarding the adequacy of a company’s reserves.



**The Peer Review Report** is a report produced by the Reviewing Actuary which provides the Board with an independent view of the Company's reserving and shall advise the Board on any limitations of the approach used by the Signing Actuary.

**The Risk Margin Report** is a report to be produced by the Chief Risk Officer, Chief Actuary or Signing Actuary as appropriate for High Impact companies. The report shall contain an analysis of the material risks to reserve adequacy; an analysis of any implications which the variance between actual and expected claims experience during the year may have for pricing adequacy, and for reserving going forward; a review and discussion of the method used by the company to calculate the reserve; an explicit enumeration and justification of the risk margin booked by the Board.

**The Signing Actuary** is the actuary who signs the SAO and produces the report underlying the SAO. He/she is required to act independently of the company in providing the SAO, regardless of whether or not he/she is an employee of the company.

**The Reviewing Actuary** should be external to the company and its parent group. He/she reviews the company's SAO and underlying report and comments on the methodologies, assumptions, uncertainties etc. He/she is required to independently check the data provided by the company for this purpose. The Reviewing Actuary must comment on sources of uncertainty affecting their estimate.

**The Chief Actuary** is an individual who is seen as having the prime source of expertise in actuarial matters and is very likely to be relied upon by senior management and the Board of Directors. The Chief Actuary is a pre-approved control function under the Central Bank of Ireland's ("Central Bank") Fitness and Probity regime.

**Companies/company** refers to non-life insurance or reinsurance entities under Central Bank supervision.

**Insurer/reinsurer** refers to non-life insurance entities or reinsurance entities under Central Bank supervision.

**PRISM** is the Central Bank's system for assessing the risk profile of the companies it supervises.

**PRISM Ratings** are ratings assigned to entities dependent on the degree of impact that failure of a company could have on the financial system, economy and citizens.

**High, Medium High, Medium Low and Low Impact** are either of the four categories that companies are assigned to depending on their PRISM Rating.

**The Chief Risk Officer** is the person with distinct responsibility for the risk management function and for monitoring the institution's risk management framework across the entire organisation. The CRO shall have sufficient seniority and independence to challenge or influence decisions which affect an institution's exposure to risk.

**Third Country** refers to any state other than a member state of the European Economic Area.

**Company Law Accounts** in this instance refer to the Financial Statements which are submitted as part of the Annual Return

**Annual Return** refers to the annual submission including the year-end regulatory returns, financial statements, report underlying the SAO etc.

**Internal Audit** is an independent and objective appraisal function which is required to provide audit assurance that the system of risk management and internal control is adequate to manage and control those risks to which the company is exposed.

**Internal Audit Assessment** is an assessment conducted by the company's Internal Audit function of the insurer's reserving process to include a review of the process around the preparation and submission of the data provided to the Signing Actuary, to provide reasonable assurance that the data is accurate and complete. It should also consider the process around producing the booked reserves.

**External Auditor** is an independent professional person/firm who is a member of a recognised accountancy body, appointed by a (re)insurance company, who is qualified to perform an audit in accordance with the Companies Acts and must also fulfil other specific requirements such as reporting under Sections 27B and 27C of the Central Bank Act, 1997.

**Corporate Governance Code** is the Central Bank's Code that sets out the Corporate Governance obligations which apply to Credit Institutions and Insurance Undertakings.

### Legal Basis

4. These Requirements are imposed on a statutory basis.
5. In addition, the Central Bank is of the opinion that compliance with these Requirements is necessary to institutions' compliance with the following:
  - a. Article 10(3) of the European Communities (Non-Life Insurance) Framework Regulations 1994 (S.I. No. 359 of 1994); and
  - b. Regulation 20 of the European Communities (Reinsurance) Regulations 2006 (S.I. No. 380 of 2006).
6. To the extent that a company is obliged under these Requirements to submit returns and information to the Central Bank, such information and returns shall also be required under Section 22 of the Central Bank (Supervision and Enforcement) Act 2013, as applicable.
7. These Requirements may be amended or supplemented by the Central Bank from time to time.
8. A failure to comply with these Requirements may expose a non-life insurer or reinsurer, and/or the management thereof, to a number of consequences including criminal prosecution, administrative sanction and/or revocation of authorisation.

### **The Signing Actuary**

9. Companies shall have a Signing Actuary. Where a company is designated as a High Impact company, the Signing Actuary shall be an employee of the company.
10. For all other companies, the role of Signing Actuary may be outsourced. Where the function is outsourced, the Signing Actuary shall not be from the same firm as the External Auditor or the Reviewing Actuary of the Firm.
11. Where a company outsources the role of the Signing Actuary, it shall formally review the position of the Signing Actuary when she/he has been in the position for nine years or more and it shall document its rationale for any continuance and so advise the Central Bank in writing.

### **The Statement of Actuarial Opinion**

12. The SAO shall provide an independent view of the adequacy of a Company's reserves. The SAO shall inform and assist the Board in its running of the company. A further aim of the SAO is to provide a warning to the Central Bank should the reserves of a company be inadequate, in the Signing Actuary's opinion.
13. All companies, including branches of Third Country non-life insurers and reinsurers shall prepare and submit an SAO to the Central Bank on an annual basis. Companies that do not carry on any:
  - a. third party business; or
  - b. motor, liability or financial guarantee business may apply to the Central Bank on an annual basis, in writing, for an annual derogation from the requirement to prepare an SAO.
14. Companies shall ensure that the SAO is submitted to the Central Bank in the format set out in Appendix 2 save, however, that all paragraphs in italics shall be omitted from the

SAO for High Impact companies. The SAO shall be provided as part of the company's Annual Return to the Central Bank and shall be provided no later than four months after the end of the financial year. The SAO shall:

- a. Encompass all classes of business written by the company
- b. Apply to the company's technical reserves, both gross and net of reinsurance
- c. Cover the following components of the technical reserves:
  - i. Outstanding claim reserves;
  - ii. Unearned premium reserves;
  - iii. Additional amounts to cover unexpired risks;
  - iv. Future claims-handling expense reserves; and
  - v. MIBI reserve and any equivalent reserve in other jurisdictions.

The SAO shall exclude:

- a. Future reinsurance bad debt reserves; and
- b. Claims equalisation reserves.

15. Guidance on the definition of the best estimate and risk margin is included at Appendix 3.

16. The SAO provided to the Central Bank shall be based on a comprehensive report ("the report underlying the SAO") to the Board. This Report shall be made available, upon request, to the Central Bank no later than two months after the SAO is signed.

17. Companies shall ensure the following in respect of the Signing Actuary:

- a. The Signing Actuary acts independently of the company in providing the SAO;
- b. The Signing Actuary is required to perform reasonable checks on the data to test its accuracy and completeness;
- c. The Signing Actuary discloses to the Central Bank any material concerns he/she has in respect of data accuracy, integrity and sufficiency in the context of the work undertaken; and
- d. The Signing Actuary discloses to the Central Bank any material concerns in relation to any other matter with the potential to affect the sufficiency of the company's reserves.



18. Companies shall ensure that:

- a. if, for whatever exceptional reason, the Signing Actuary is unable to give an unqualified SAO to the Central Bank, that the Signing Actuary informs the Central Bank and the External Auditor of this matter as soon as possible; or
- b. if the Signing Actuary refuses to provide an SAO, having initially agreed to do so, the Signing Actuary shall inform the Central Bank and the External Auditor as soon as possible.

19. Companies shall ensure that the report underlying the SAO includes *inter alia* the following:

- a. Any known information with the potential to have a material impact on reserves. Information should be considered material if, should the information be misstated or omitted entirely, it would cause the results, opinions and conclusions of the SAO and the underlying Report to be misleading to users of the Report. The main intended users are the Board of the company and the Central Bank.
- b. A discussion of:
  - i. The company background and strategy throughout the year;
  - ii. The stability of the claims handling process over time;
  - iii. The external environment and its impact on the reserves of the company; and
  - iv. How actual claims experience during the year compared to expected development.

This analysis shall be quantified where appropriate and consider any implications for the preparation of the current SAO;

- c. Documented reasons and rationale to demonstrate how and why the Signing Actuary came to his/her decision that the approach chosen is the most appropriate. For example, where a number of different development triangles were looked at, or a number of different methodologies used, the rationale for the chosen method should be included;
- d. Documentation and justification for any material uses of expert judgement applied to best estimate and the discussion of uncertainty;

- e. A discussion of the main risks and uncertainties which should inform the Board's consideration of the risk margin. This discussion shall be sufficiently prospective in nature and not simply based upon methods that examine historic variability of reserves. Where practical, these uncertainties shall be quantified. The SAO shall describe the rationale for the methodologies used, and shall demonstrate how the Signing Actuary determined the main risks and uncertainties;
- f. A comparison of actual experience with that expected under the assumptions of the last report underlying the SAO; and
- g. Documented reasons for any differences between the assumptions used for calculating the outstanding claims liabilities and those used for calculating any Additional Unexpired Risk Reserve.

20. The report underlying the SAO, should address the following in a comprehensive manner:

- a. How the Signing Actuary assessed the consistency and quality of the data used to produce the best estimate. This may include, where appropriate, documentation of any recommendations the Signing Actuary may have on ways in which the company can improve its data standards. The Signing Actuary should also include a discussion of any data issues which could not be resolved with the company, and any consequent limitations or effects on the best estimate calculation;
- b. How the Signing Actuary selected the models, methodologies and assumptions used to produce the best estimate and the quantification of uncertainty. This rationale should include sufficient detail to enable the readers of the report to understand the reasons for the selections made;
- c. The nature of key assumptions made in relation to future claims costs (including claims inflation, changes in court awards, medical inflation, wage inflation etc), loss ratio assumptions (including the rationale for any material adjustments made to loss ratios and where appropriate, the rationale for not adjusting loss ratios) and any other assumptions. The reasons for the particular choice of assumption should be clearly documented;

- d. The sensitivity of results to a change in assumptions. If the results are particularly sensitive to a change in an assumption, this sensitivity should be discussed and where feasible, quantified. A description of any sensitivity analysis carried out should be included;
- e. The nature of any reliance placed or not placed on information or reports provided by the company, or any other source, and any testing of the data or other information by the company's internal or external auditor. Any consequences of this reliance or non-reliance should be discussed and documented in the report; and
- f. The nature of the material sources of uncertainty in the reserves and how the Signing Actuary identified these as the most material sources of uncertainty. The possible practical consequences of the uncertainties discussed in the report should also be clear.

### **Governance Requirements**

- 21. The Board shall ensure that the company has appropriate governance arrangements in place in respect of the setting of claims estimates; such arrangements shall include internal control mechanisms to ensure the regular review and quality assessment of all claims and procedures for the escalation of large claims within the company.
- 22. The Board<sup>1</sup> shall ensure that the company has processes in place within the claims function and the actuarial function to periodically reconcile claims data. This reconciliation shall be performed at least annually.
- 23. Companies shall ensure that key areas of focus for the Board in reviewing the data submitted to the Signing Actuary are a review of the claims paid, the technical provisions and the internal controls associated with the production of the data submitted to the Signing Actuary. The Board shall satisfy itself that on reasonable grounds, the External Auditor has the requisite experience and knowledge available to adequately assess these key areas.

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<sup>1</sup> The Boards of High Impact companies may delegate the duties from 24 – 26 to the Reserving Committee (see 49).

24. The Board or the Audit committee of all High Impact companies shall meet with the External Auditor's actuary in order to assess his/her understanding of the company and its products.
25. The Board shall ensure that the Company has a transparent Pricing Policy which includes robust internal procedures for: (a) the setting of technical prices; and (b) any deviation from the technical prices set.
26. The Board shall ensure that the Company has a clear Reserving Policy which shall set out at a minimum the following:
  - a. the Company's approach to reserving and the reserving objectives;
  - b. The Reserving Process at a high level, including key roles and responsibilities; and
  - c. Key Controls for Reserving.
27. In considering the risk margin over the best estimate booked by the company, the Board shall consider the following:
  - a. The company's Board-approved reserving policy, as well as any changes in the company's reserving policy over time;
  - b. The Board-approved policy setting out the purpose of the risk margin and how it is calculated;
  - c. The accounting requirements that must be satisfied for the financial statements to present a true and fair view;
  - d. Its Risk Appetite Statement required by the Corporate Governance Code; and
  - e. The main risks and uncertainties as outlined in the Risk Margin report.
28. For High Impact companies, the Board shall ensure that the Chief Risk Officer, Chief Actuary or Signing Actuary, as appropriate, produce a report ("the Risk Margin Report") to the Board. This report shall be produced within 4 months of the financial year end. The Risk Margin Report shall contain the following:
  - a. An analysis of the material risks to reserve adequacy. This need only cover such risks as would lead to the reserves being understated by a material amount relative

to the solvency margin held. The report should provide details of the analysis performed to reach this conclusion. Where appropriate, the distribution of reserves, and the percentile at which reserves are booked, should be included;

- b. An analysis of any implications which the variance between actual and expected claims experience during the year may have for pricing adequacy, and for reserving going forward;
- c. A review and discussion of the method used by the company to calculate the booked reserve. This review and discussion shall include the process followed by the company in producing the reserved amount and any improvements the author recommends; and
- d. An explicit enumeration and justification of the risk margin booked by the Board, including a discussion of how the risk margin is sufficient to address the risks and uncertainties identified by the Signing Actuary.

29. Companies shall provide the Signing Actuary with the data and information required for the preparation of the SAO and the report underlying the SAO. The Board shall ensure that:

- a. No relevant information that would materially affect the company's reserves has been knowingly withheld from the Signing Actuary;
- b. The data provided to the Signing Actuary and underlying the reserves are accurate and complete and have been reconciled to the data used in preparation of the Company Law accounts and supervisory returns for the period;
- c. Claims development data provided to the Signing Actuary has been reconciled to the accounting information underlying the Company Law accounts;
- d. The Signing Actuary has been advised of all known internal methods or procedures, or changes in these methods or procedures over time, which could materially affect the determination of reserves;
- e. The Signing Actuary has been advised of all known external issues (including, but not limited to, the external environment and claims trends) with the potential to materially affect the determination of the reserves;
- f. The Signing Actuary has been informed of any reports, information or data which may be relevant to the company's reserves;



- g. The Signing Actuary is notified of any developments after the year-end (up to the signing of the next SAO) which have the potential to materially affect the best estimate. Should such developments occur, the company shall ensure that the Signing Actuary considers whether a supplementary report ought to be produced detailing any effects on the best estimate as at the last valuation date. Such report should identify the causes of the variance, the updated best estimate and risk margin over same as at the last valuation date, and any proposed changes to the process used to produce the previous best estimate. Companies shall ensure that this report, where prepared, shall be submitted to the Board and the Central Bank; and
- h. The Signing Actuary has been granted access to the company's staff and the Board.

### **Internal Audit Assessment**

- 30. Companies shall ensure that their internal audit function conducts an assessment of the company's reserving process ("Internal Audit Assessment"). The Internal Audit Assessment shall include a review of the processes around the preparation and submission of the data provided to the Signing Actuary and around the production of the booked reserves. The purpose of this assessment is to provide reasonable assurance that the data is accurate and complete. A report on the Internal Audit Assessment shall be provided to the Central Bank. At a minimum this report should cover the following:
  - a. Overall audit opinion;
  - b. Details of audit scope and procedure;
  - c. Assessment of governance and control framework including details of any controls not operating or designed effectively;
  - d. Detailed findings and recommendations; and
  - e. Status of previous findings.
- 31. Companies designated as High Impact companies shall perform an Internal Audit Assessment at least once every two years.
- 32. Companies designated as Medium High Impact companies shall perform an Internal Audit Assessment at least once every three years.

33. Companies designated as Medium Low Impact companies shall perform an Internal Audit Assessment at least once every five years.

### **Peer Review**

34. Companies shall commission an actuary (“Reviewing Actuary”) to conduct a peer review of their SAO and the report underlying the SAO. The Reviewing Actuary shall produce a Report (“the Peer Review Report”) addressed to the Company’s Board. This report shall provide the Board with an independent view of the Company’s reserving and shall advise the Board on any limitations of the approach used by the Signing Actuary.
35. The Peer Review Report at a minimum will include the following:
- a. A description of the scope of the review, including details of the work completed and the processes followed in the review;
  - b. Commentary on the methodologies, assumptions, main uncertainties etc. in the SAO and the report underlying the SAO; and
  - c. An assessment of the reasonableness of the Signing Actuary’s conclusions in the SAO and the report underlying the SAO.
36. Companies designated as High Impact and Medium High Impact companies shall ensure that, in addition to the tasks outlined in paragraph 35 above, the Reviewing Actuary shall independently:
- a. Calculate a best estimate for the company. This best estimate should include all reserves considered in the report underlying the SAO, both gross and net;
  - b. Assess the material sensitivities of the results to key assumptions; including overall assumptions (e.g. methodological assumptions) and assumptions by reserving class (e.g. choice of development factors and expected loss ratios);
  - c. Assess key sources of potential deterioration in the best estimate;
  - d. Outline the key business lines that are most subject to uncertainty; and
  - e. Assess the governance around the production of the Risk Margin Report, its consistency with the SAO report and its completeness.

37. Guidance on the Peer Review Report is included in Appendix 4.
38. Companies designated as High Impact companies by the Central Bank shall have a peer review performed every other year (agreed with the Central Bank).
39. Companies designated as Medium High Impact companies by the Central Bank shall have a peer review performed every three years.
40. Companies designated as Medium Low Impact companies by the Central Bank shall have a peer review performed every five years.
41. Companies shall submit the Peer Review report prepared by a Reviewing Actuary to the Board no later than six months after financial year end.
42. Companies shall ensure that the Reviewing Actuary is external to the company and its parent group. The Reviewing Actuary may not be from the same firm as the Signing Actuary or the External Auditor.
43. The Board shall be able to demonstrate to the Central Bank that the Reviewing Actuary selected by the Board has the requisite skills, qualifications and experience appropriate to the role.
44. Companies shall not commission the same Reviewing Actuary, or another actuary from the same firm, for more than three consecutive peer reviews.
45. Companies shall submit a copy of the Peer Review report prepared by the Reviewing Actuary to the Central Bank at its request.
46. Companies designated as High Impact companies shall ensure that the Peer Review report prepared by the Reviewing Actuary is submitted to the Central Bank no later than six months after the financial year end. High Impact companies shall ensure that the

report of the Reviewing Actuary is presented to the Board in advance of being submitted to the Central Bank.

### **Reserving Committee**

47. Companies designated as High Impact companies shall establish a Reserving Committee. This committee need not be a sub – committee of the Board. This committee shall meet at least quarterly and shall include at least one Independent Non-Executive Director, the member of executive management with responsibility for Claims, the Signing Actuary (and Chief Actuary where different), the Head of Underwriting and the Head of Finance. The purpose of this committee is to oversee the governance of the setting of reserves at the company and its compliance with the Reserving Policy set by the Board. This oversight shall include ensuring that any changes to claims settlement practices are documented and communicated to the actuarial function. The High Impact Company shall ensure that the Committee opines on all such changes to ensure that there are actual savings through the changes in practices rather than an acceleration of the time taken to settle claims. The requirements here imposed on a Reserving Committee shall be reflected within the terms of reference of that committee. The booking of reserves remains the responsibility of the Board of the company.

## Appendix 2: Format of Opinion on Non-Life Technical Reserves

**To: Central Bank of Ireland**

**Statement of Actuarial Opinion – [Name of Insurance Company]**

### Identification

I, [Name of Actuary], am an actuary employed by [Name of Insurance Company] ("the Company")

### Or

*I, [Name of Actuary], am associated with [Name of Actuarial Firm] who have been retained by [Name of Insurance Company].*

### Qualification

I was approved by the Central Bank of Ireland on [date of approval] to act in the Pre-Approval Controlled Function of Signing Actuary for [Name of Insurance Company].

### Scope

I have examined the reserves listed below for [Name of Insurance Company] as at [end of current financial year], as reported in the Company's returns to the Central Bank.

	Gross of Reinsurance €'000	Net of Reinsurance €'000
Outstanding Claims Reserves		
Future claims handling expenses		
Unearned premium reserves		
Additional amounts to cover unexpired risks		
MIBI		
<b>Total reserves</b>		

The preceding total reserves are for indemnity amounts and claims handling expenses (both allocated and unallocated) and include provision for future claims arising from unexpired periods of risk. They are net of salvage and subrogation and of anticipated future premiums (net of acquisition expenses) on past and current business. They are not



discounted for the time value of money. The net reserves exclude any allowance for reinsurance bad debts.

[In cases where the Company is permitted to discount reserves for the time value of money, the actuary should replace the words "They are not discounted for the time value of money" with "A credit of €.... has been taken for the time value of money, based on a rate of discount of..% per annum.]

*I have relied upon data and information prepared by the responsible employees of the Company<sup>2</sup>. I have completed reasonable checks on the accuracy and completeness of this data and the Company has confirmed that the data and information supplied to me are accurate and complete. I have not encountered anything during the course of my work that gives me material concern in this respect. I consider that the data and information are an appropriate basis for the purposes of this Opinion.*

My examination included the use of such actuarial assumptions and methods and such tests of the calculations as I considered necessary.

### **Solvency margin**

The Total Required Solvency Margin of the Company as at (end of financial year) reported in the Company's returns to the Central Bank of Ireland was €.....

### **Retrocession Programme<sup>3</sup>**

For the purpose of this Opinion, I have reviewed the application of the retrocession programme put in place by the Company.

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<sup>2</sup> Where the report underlying the SAO is accompanied by a Data Accuracy Statement, the relevant PCF (Pre-Approval Controlled Function) holder in the company should include a report setting out how they are satisfied that it is reasonable and appropriate for them to provide such a statement. This should make particular reference to the policies and procedures pertaining to the provision of data (with particular emphasis on case estimate data) to the reserving actuary and the documentation of any amendments to claims procedures during the year.

<sup>3</sup> This paragraph should be included for companies with retrocession programmes only.

**Opinion**

In my opinion, subject to the above comments (and except for the qualifications stated below), the total reserves identified above, gross and net of reinsurance<sup>4</sup>, comply with applicable Irish legislation (including legislation transposing relevant European Union insurance directives) and are greater than the sum of expected future liabilities plus the expected profit margin in the unearned premium reserves of [Name of Insurance Company] as at [end of current financial year].

[Qualifications on Opinion - Other comments at the discretion of the Actuary]

I am satisfied that the Total Required Solvency Margin identified above has been calculated based on the applicable data in the Company's returns to the Central Bank of Ireland and is in accordance with Irish legislation (including legislation transposing relevant European Union insurance directives) and any relevant regulatory requirements.

An actuarial report, supporting the findings expressed in this statement of opinion, has been [will be] provided to the Company.

**Signed:**

**Name:**

**Date:**

**Address:**

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<sup>4</sup> For reinsurance companies, replace "reinsurance" with "retrocession".

## Appendix 3: Guidance on Best Estimate and Risk Margin

### Best Estimate of claims liabilities

A probability weighted average of future expected payments arising out of current incurred claims liabilities and claims handling expenses, both reported and unreported. This is to be based on an analysis of appropriate and valid historical claims experience obtained from specific company or market based data using reasonable and applicable statistical projection methodologies.

The estimate should for example:

Not take account of the time value of money (unless annual explicit prior approval is obtained from the Central Bank of Ireland);

Not include precautionary risk margins either explicit or implicitly;

Not incorporate unreasonable or optimistic exclusions of past development experience;

Not include new types or classes of claims that are not reflected in historical company or available market data;

Not include an allowance for possible but as yet not published legislation; and

Include an allowance for recently enacted legislation and operational changes that are not yet reflected in historical data.

### Explanatory Text

- 1.1 In determining this definition of best estimate we have considered actuarial and audit practices and definitions applied both in legislation and guidance in Ireland, Europe and internationally.
- 1.2 In considering a definition we have assumed that companies will establish separate risk margins in their overall provisions in respect of specific binary or contingent events that might not be considered as being reasonably expected to arise.
- 1.3 The best estimate is a point in time estimate and is likely to fluctuate as experience develops and progresses. The best estimate may appear to get both worse and better over the full development period.

- 1.4 Standard non-life actuarial practice, prior to Solvency II, is not to apply discounting for the time value of money in the establishment of estimates for future claims liabilities even though individual claims assessors may anticipate the impact of inflation on possible future claims settlements. This practice of not discounting incorporates a risk margin into any best estimate calculation which might generate, on occasions, a value that is more than sufficient to cover the payment any liabilities arising out of insurance contracts as far as can reasonably be foreseen (Irish GAAP SORP requirements).
- 1.5 Current legislation does not permit discounting of non-life liabilities except in specific circumstances.
- 1.6 Statistical estimates of future ultimate liabilities are generally based on current case estimate provisions. If it is such a practice of the company to include in its case estimate methodology any risk margins above best estimate then these risk margins may or may not be compounded in the actuarial statistical estimation process depending on the selected development patterns used by the estimating actuary.
- 1.7 Although not specifically instructed or directed by guidance it is a common practice for many reserving actuaries to adopt an attitude, or apply judgement, in such a manner as to place less weight on optimistic development factors or patterns.
- 1.8 Accounting commentary would appear to centre on the principle of willing buyer/seller valuations which implicitly would imply allowance for receipt of future investment incomes and the exclusion of overtly adverse deviations or events that are not currently experienced or enacted.
- 1.9 FRS12 particularly highlights that in respect of future events there should be objective evidence that they will occur and that in many cases sufficient objective evidence will not exist until new legislation is enacted.

- 1.10 When considering which claims patterns, events, legislative or operational changes etc should be included within the best estimate the Signing Actuary should apply his/her expert judgement within the guidelines laid out herein.

### **Risk Margin**

When booking reserves in an insurance company's accounts, Boards of Directors need to consider the (possibly significant) proportion of possible outcomes that exceed the Best Estimate. Consequently, the Booked Reserves are typically greater than the Best Estimate. The amount by which the Booked Reserves exceed the Best Estimate is termed the Risk Margin.

### **Explanatory Text**

- 2.1 In the majority of cases the Best Estimate (as defined above) will be the mean value of a range of possible outcomes.
- 2.2 Typically, the distribution of this range of possible outcomes will be right-skew (there is a limit on how much better the reserve can get, but they can get very much worse).
- 2.3 The median of this distribution will typically be to the left of the Best Estimate. Thus, assuming the Best Estimate is the true mean of the distribution of possible outcomes, the actual result for the majority of cases will be better than the Best Estimate.
- 2.4 However, given the right-skewness of the distribution of possible outcomes, there will be a significant proportion of possible outcomes that will be worse than the Best Estimate. Based on commonly used estimation techniques, in the region of 45% of outcomes are worse than Best estimate for a typical line of business.
- 2.5 Typically there will be a proportion of possible outcomes that will be significantly worse than the Best Estimate.
- 2.6 Based on the definition of Best Estimate given above the distribution of possible outcomes considered may not include certain adverse scenarios, including:



- the emergence of a new type of claim
- low probability, high impact events (so-called “binary events”)
- ‘effects from events not yet occurred’

### **Determining the Risk Margin**

When booking reserves in an insurance company’s accounts, Boards of Directors should explicitly enumerate and justify the constituents of the Risk Margin.

Factors to be considered in determining the appropriate level of the Risk Margin include:

- The level of uncertainty in the reserves;
- Changes in the claim environment;
- Exposure to latent claims or new types of claim; and
- Exposure to binary events.

Stress and scenario testing should be important tools in determining the level of the Risk Margin. Where appropriate, statistical methods of quantifying the uncertainty in the reserves should also be employed.

### **Explanatory Text**

3.1 Generally, the greater the uncertainty in the reserves the greater the Risk Margin should be. In particular, where there is greater uncertainty than might normally be expected, due to factors such as:

- Data quality issues
- Mergers and acquisitions making the historical claims profile less reliable
- Changes in claims handling
- Changes in the claims environment

then the Risk Margin should generally be higher.

3.2 Where there have been recent changes in the claims environment this can add to the uncertainty in the reserves. This is due to the changes making the historic loss development less relevant to the future, and also because the impact of the changes may not be known for certain.

- 3.3 Expected future changes in the claim environment also add to the uncertainty in the reserves. Again, this is due to the changes making the historic loss development less relevant to the future, and because the impact of the changes may not be known for certain. Additionally, the timing and exact nature of the changes may not be known with certainty.
- 3.4 Examples of changes in the claim environment are the introduction of PIAB, changes in the circuit and district court thresholds and the possible introduction of Periodic Payment Orders (PPOs). Integral changes could include changes in claims handling philosophy or changes in key personnel.
- 3.5 Where there is exposure to latent claims, new types of claims or binary events, the true underlying distribution of possible outcomes will be more skew than would otherwise be the case. Boards need to consider adverse scenarios when setting the Risk Margin. In such cases, the adverse scenarios may be considerably worse than the Best Estimate, and a substantial Risk Margin may be appropriate.
- 3.6 Stress and scenario tests allow Boards to attempt to quantify the possible impact of adverse scenarios.
- 3.7 Boards should enumerate the constituents of the Risk Margin when booking the reserves. This may include:
- Statistical buffer over Best Estimate
  - Impact of various scenarios considered
  - Allowance for diversification effects (all scenarios are unlikely to occur at once)
- 3.8 The Appendix provides an example of how a Board might use Stress and Scenario testing to determine an appropriate Risk Margin. The approach outlined in the Appendix is relatively straightforward. Companies may consider more sophisticated approaches, such as full or partial internal models.

#### **Legal and Regulatory Framework**

Both non-life insurance and non-life reinsurance undertakings must hold reserves that shall at all times be sufficient to cover any liabilities arising out of insurance contracts as far as can be reasonably foreseen.



**Explanatory Text**Statement of Actuarial Opinion

4.1 non-life insurance and reinsurance company reserves in Ireland must be supported by a Statement of Actuarial Opinion (SAO), which states that the technical provisions (including claims handling reserve and additional reserve for unexpired risks, if any):

- *“comply with applicable Irish legislation (including legislation transposing relevant European Union insurance directives) and are greater than the sum of expected future liabilities plus the expected profit margin in the unearned premium reserves”* (non-life insurance)
- *“comply with Irish legislation (including legislation transposing relevant European Union insurance directives) and any relevant regulatory requirements. The total reserves, gross and net of retrocession, are greater than the sum of expected future liabilities plus the expected profit margin in the unearned premium reserves”* (non-life reinsurance)

4.2 Thus the reserves must be at least as much as the expected future liabilities – i.e., the signing actuary’s Best Estimate.

4.3 Note that the actuary is also certifying that the reserves comply with (applicable) Irish legislation (see below).

(Re)Insurance Regulations and Insurance Accounts Regulations

4.4 Part II Valuation Rules Chapter 3 paragraph 23. Technical provisions states:

- *“The amount of technical provisions shall at all times be sufficient to cover any liabilities arising out of insurance contracts as far as can reasonably be foreseen.”*

4.5 SI No. 23 of 2006 (European Communities (Insurance Undertakings: Accounts) Regulations) transposes into Irish Law the Insurance Account Directive (IAD) (Council Directive 91/674/EEC). Article 56 in Section 7 of the IAD (Valuation rules) states:

- *“The amount of technical provisions must at all times be such that an undertaking can meet any liabilities arising out of insurance contracts as far as can reasonably be foreseen.”*

4.6 SI No. 359 of 1994 (European Communities (Non-Life Insurance) Framework Regulations) also requires that

- *“technical reserves shall be determined in accordance with the rules laid down in Council Directive 91/674/EEC (the IAD)”*

4.7 Likewise, SI No. 380 of 2006 (European Communities (Reinsurance) Regulations) requires that

- *“An authorised reinsurance undertaking established in the State shall establish and maintain in respect of its entire business (a) technical reserves as determined in accordance with the Insurance Accounts Directive...”*

#### Accounting Guidance

4.8 Irish GAAP Statements of Recommended Practice (SORP) states that:

- *“The level of claims provisions should be set such that no adverse run-off deviation is envisaged”*

4.9 In addition, the SORP states that

- *“In setting the provision, consideration should be given to the probability and magnitude of future experience being more adverse than assumed. Where there is considerable uncertainty concerning future events a degree of caution will be necessary in the exercise of the judgment required for setting provisions such that liabilities are not understated”*

4.10 Thus prudence is required when setting the reserves, particularly when setting reserves under increased uncertainty. This would clearly point to reserves being set at a level greater than Best Estimate.

4.11 Thus both non-life insurance and non-life reinsurance undertakings must hold reserves that shall at all times be sufficient to cover any liabilities arising out of insurance contracts as far as can be reasonably foreseen.

- 4.12 We are not aware of the term “as far as can be reasonably be foreseen” being subject to scrutiny by the courts in the context of insurance technical provisions.
- 4.13 Nonetheless, there are some basic assertions that can be made:
- Where the Best Estimate represents (for example) the 55th percentile of the distribution of possible outcomes, an outcome higher than the Best Estimate can be “reasonably foreseen”
  - Low probability high impact events (Binary Events) are unlikely to be “reasonably foreseen”
  - New types of claim are unlikely to be “reasonably foreseen”
- 4.14 In judging retrospectively whether an outcome should have been reasonably foreseen, commentators should be wary of hindsight bias.
- 4.15 The true distribution will never be known, and in many cases a full distribution cannot be estimated with any degree of reliability. Neither is the true Best Estimate known with certainty.

**Appendix to the Guidance on Best Estimate and Risk Margin****Using Statistical Methods and Stress and Scenario Testing to determine the Risk Margin**

**Example Company – XYZ Insurance Limited, a large domestic personal and commercial lines insurer**

**Statistical Assessment**

Where appropriate (i.e. there is a sufficient volume of claims data to give credible results) a statistical quantification of the uncertainty in the reserves should be performed. The example company uses a Bootstrap method.

XYZ insurance is writing a set of portfolios which has experienced significant but not unexpected variability in reserve run-off patterns over the last 20 years. A typical multi-line general insurer may fall into this category, writing motor, household, commercial liability and property, marine etc. In these circumstances, it is appropriate to perform a statistical quantification such as a bootstrap.

In this instance, the Board has a stated policy of reserving at the 80<sup>th</sup> percentile of the Bootstrap distribution. In this example the Actuarial best estimate reserves are set at €500m (the case reserves plus IBNR / IBNER plus the claims handling expense provision). The 80th percentile reserve margin from the bootstrap is €525m.

However, even where these statistical methods are appropriate, it is also expected that Boards will use a combination of these methodologies with stress and scenario testing.

In some cases a statistical method such as the above is not appropriate, e.g. where there portfolio has significant high excess layer exposures, and thus past observed volatility may not represent adequately the true risks inherent in the portfolio. In these circumstances, stress and scenario tests should be employed as the main tool.

**Stress and Scenario Testing**

Boards should perform stress and scenario tests which are appropriate to their portfolios. The Board should consider using a series of stress tests covering the main sources of uncertainty that could impact the reserve run-off. Typically the Board should consider the 5 to 10 largest such scenarios.

Such scenarios might include:

- a) The economy has been experiencing full employment for several years with GDP running to close to 10% per annum. It is expected that there will be significant inflationary pressures impacting the claims environment for several years to come.
- b) There has been significant recent press coverage of a number of scientific papers that suggest the emergence of a new latent claim, which could impact all employer liability accounts over the coming decades.
- c) A change in claims practice has been implemented to achieve efficiency, but it was not recognised that this change dampened down claims development, and thus the actuary has (unintentionally) underestimated the actuarial best estimate.
- d) A change in the jurisdiction of the courts has led to more claims being adjudicated on in the lower courts, and an increase in claims inflation, facilitated by the raising of the limits.
- e) The property market is expected to grow significantly over the next year, and rebuilding costs are thus expected to increase significantly for outstanding property claims.

The Board should include company specific scenarios, and in addition should consider including scenarios that have been experienced in the wider market, in particular those that have led to prior company failures.



## Appendix 4: Guidance on Peer Review Reports

This report should include, at a minimum, the following:

- a. A description of the scope of the review, including details of the work completed, the processes followed in the review and the extent to which the Reviewing Actuary had access to relevant data, information, reports and staff of the company;
- b. Details of the Reviewing Actuary's calculation of the best estimate, including a description of the data checks performed, methodology used, assumptions made and an assessment of the material uncertainties affecting the best estimate;
- c. Commentary on the methodologies used, assumptions made and main sources of uncertainties identified in the report underlying the SAO;
- d. Commentary on the appropriateness or otherwise of the use of expert judgement throughout the report underlying the SAO, including the use of judgement in relation to the choice and appropriateness of the data used;
- e. A discussion of the material sensitivities of the results to key assumptions made in the report underlying the SAO, including overall assumptions (e.g. methodological assumptions) and assumptions by reserving class (e.g. choice of development factors and expected loss ratios);
- f. A discussion of the key sources of potential deterioration in the best estimate;
- a. A discussion of the key business lines that are most subject to uncertainty;
- g. An assessment of the reasonableness of the Signing Actuary's conclusions in the SAO and the report underlying the SAO;
- h. A discussion of the governance around the production of the Risk Margin report, its consistency with the SAO report and its completeness.

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