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EUROPEAN STANDARD OF ACTUARIAL PRACTICE 2 (ESAP 2)

ACTUARIAL FUNCTION REPORT UNDER DIRECTIVE 2009/138/EC

Working draft of a model standard of actuarial practice of the Actuarial Association of Europe

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Preface

[Drafting Notes - When an actuarial standard-setting organisation adopts this standard it should:

- 1. Replace "ESAP2" throughout the document with the local standard name;
- 2. Choose the appropriate phrase and date in paragraph 1.7.1;
- 3. Review for, and resolve, any conflicts with the local law and code of professional conduct; and
- 4. Delete this preface (including these drafting notes).]

This EUROPEAN STANDARD OF ACTUARIAL PRACTICE (ESAP) is a model standard for member associations and other actuarial standard-setting bodies in Europe to consider. ESAP2 is not binding upon an **actuary** unless the **actuary** states that some or all of the work has been performed in compliance with this ESAP or an association of which the **actuary** is a member adopts it (or a modification of it) as a mandatory standard of practice.

- 1. The ACTUARIAL ASSOCIATION OF EUROPE (AAE) encourages relevant actuarial standard-setting bodies in Europe to consider adopting ESAP2 as a standard with or without modification, endorsing ESAP2 as a standard or adapting one or more existing standards to embody the principles of this ESAP. Such an adopted standard (rather than ESAP2) is binding on those actuaries who are subject to such body's standards, except as otherwise directed by such body (for example with respect to cross-border work).
- 2. When the standard is translated, the adopting body should select three verbs that embody the concepts of "must", "should", and "may", even if such verbs are not the literal translation of "must", "should", and "may".

Section 1. General

1.1. Purpose

- 1.1.1 This EUROPEAN STANDARD OF ACTUARIAL PRACTICE 2 (ESAP2) provides guidance to actuaries when issuing an Actuarial Function Report (AFR) in connection with an undertaking's compliance with the reporting requirements in Article 48 (1) of the Solvency II Directive and in paragraph 8 of Article 262 SG10 of the draft delegated acts.
- 1.1.2 The purpose of ESAP2 is that the **intended users** of the **AFR** should be able to place a high degree of reliance on the report, its relevance, transparency of assumptions, completeness and comprehensibility, including the communication of any uncertainty inherent in the results stated in the report. In particular it does this by ensuring that the **AFR**
 - includes sufficient information to enable **intended users** to judge the relevance of the contents of the **AFR**;
 - includes sufficient information to enable **intended users** to understand the implications of the contents of the **AFR**; and
 - such information is presented in a clear and comprehensible manner.
- 1.1.3 This standard will contribute to ensuring consistent, efficient and effective practices within the **Actuarial Function** (**AF**) across **undertakings** in the European Union concerning the preparation of the **AFR**. This will strengthen and contribute towards harmonised and consistent application of EU legislation.

1.2 Scope

- 1.2.1 This ESAP applies to actuaries performing actuarial services when issuing an AFR in connection with an undertaking's compliance with Article 48 (1) of the Solvency II

 Directive and paragraph 8 of Article 262 SG10 of the draft delegated acts.
- 1.2.2 ESAP2 assumes that **actuaries** will also comply with ESAP1, approved as a model standard by the AAE on [...].

1.3 Underlying Principles

- 1.3.1 This ESAP is based on four principles, which should be borne in mind in any assessment of compliance with this ESAP.
- 1.3.2 **Principle 1:** Actuarial services related to the AFR must be carried out consistently with Solvency II regulations and guidelines.
- 1.3.3 **Principle 2**: In applying 1.5.2 of ESAP1, <u>actuarial services</u> related to the <u>AFR</u> should be carried out in a way which is proportional to the nature, scale and complexity of the underlying risks of the <u>undertaking</u>. (Principle of Proportionality)
- 1.3.4 **Principle 3: Actuarial services** related to the **AFR** should be consistent with the code of

professional conduct of the actuarial profession and with any applicable general actuarial standards.

1.3.5 **Principle 4**: The **AFR** should be structured according to the needs of the **intended users**, in particular the Administrative, Management or Supervisory Body (**AMSB**).

1.4 Materiality

1.4.1. A failure to follow the principles in this standard need not be considered a departure if it does not have a **material** effect. The contents of this standard should be read in that context, even where the term **material** is not explicitly used or where the word "must" is used.

1.5 Language

- 1.5.1. Some of the language used in all ESAPs is intended to be interpreted in a very specific way in the context of a decision of the **actuary**. In particular, the following verbs are to be understood to convey the actions or reactions indicated:
 - "must" means that the indicated action is mandatory and failure to follow the indicated action will constitute a departure from this ESAP.
 - "should" (or "shall") means that, under normal circumstances, the <u>actuary</u> is expected to follow the indicated action, unless to do so would produce a result that would be inappropriate or would potentially mislead the <u>intended users</u> of the <u>actuarial services</u>. If the indicated action is not followed, the <u>actuary</u> should disclose that fact and provide the reason for not following the indicated action.
 - "may" means that the indicated action is not required, nor even necessarily expected, but in certain circumstances is an appropriate activity, possibly among other alternatives. Note that "might" is not used as a synonym for "may", but rather with its normal meaning.
- 1.5.2 This document uses various expressions whose precise meaning is defined in section 2. Words and expressions which are included in section 2 are shown in **bold** elsewhere in the document. Headings are shown in bold whether or not they contain defined terms.

1.6 Cross references

1.6.1 When this standard refers to the content of another document, the reference relates to the referenced document as it is effective on the adoption date as shown on the cover page of this ESAP. The referenced document may be amended, restated, revoked or replaced after the adoption date. In such case, the **actuary** should consider the extent the modification is applicable and appropriate to the guidance in this ESAP.

1.7 Effective Date

1.7.1. This standard applies to <u>actuarial services</u> relating to an <u>Actuarial Function Report</u> completed after [Date¹].

¹ Date to be inserted by standard-setter adopting or endorsing this ESAP

Section 2. Definitions

The terms below are defined for use in this ESAP.

- **2.1** Actuarial Function (AF) An administrative capacity to undertake the particular governance tasks described in Article 48 of the **Solvency II Directive**.
- **2.2** Actuarial Function Report (AFR) The report from the <u>Actuarial Function</u> to the <u>AMSB</u> in accordance with Article 48 of the <u>Solvency 2 Directive</u> and associated regulations, standards and guidelines.
- **2.3 Actuary** An individual member of one of the member associations of the Actuarial Association of Europe.
- **2.4** Actuarial services Services, based upon actuarial considerations, provided to intended users that may include the rendering of advice, recommendations, findings or opinions.
- 2.5 AF Actuarial Function
- 2.6 AFR Actuarial Function Report
- **2.7 AMSB** Administrative, management or supervisory body.
- **2.8** Conflict of Interest Occurs when an individual or organisation is involved in multiple interests, one of which could possibly corrupt the motivation for an act in the other or result in work which is not, or is not perceived to be, objective and impartial.
- **2.9** Intended user Any legal or natural person (usually including the principal) whom the actuary intends, at the time the actuary performs the actuarial services, to use the report.
- 2.10 Material Matters are material if they could, individually or collectively, influence the decisions to be taken by intended users on the basis of the relevant information given. Assessing whether something is material is a matter of reasonable judgement which recommends consideration of the intended users and the context in which the work is performed and reported (similarly materiality).
- **2.11 Model** A simplified representation of some aspect of the world. A **model** is defined by a specification which describes the matters that should be represented and the inputs and the relationships between them, implemented through a set of mathematical formulae and algorithms, and realised by using an implementation to produce a set of outputs from inputs in the form of data and assumptions, usually involving judgment of the **actuary**. Data means all types of quantitative and qualitative information.
- **2.12 Solvency II Directive** Directive 2009/138/EC.

- **2.13 Solvency II principles** The provisions contained in the **Solvency II Directive** and the associated regulations, standards and guidelines.
- **2.14 Special Purpose Vehicle** (SPV) . A special purpose vehicle means any undertaking, whether incorporated or not, other than an existing insurance or reinsurance undertaking, which assumes risks from insurance or reinsurance undertakings and which fully funds its exposure to such risks through the proceeds of a debt issuance or any other financing mechanism where the repayment rights of the providers of such debt or financing mechanism are subordinated to the reinsurance obligations of such an undertaking.
- **2.15** Technical Provisions The technical provisions of an <u>undertaking</u> calculated under the valuation principles of the <u>Solvency II Directive</u> (Articles 75 to 86).
- 2.16 Undertaking An insurance or reinsurance undertaking which has received authorisation to carry out the business of insurance or reinsurance in accordance with Article 14 of the Solvency II Directive.
- **2.17 Underwriting** The process of defining, evaluating and pricing insurance or reinsurance risks, including the acceptance or rejection of insurance or reinsurance obligations.

Section 3. Appropriate Practices

3.1 General principles

THE ACTUARIAL FUNCTION REPORT and its CORE PARTS

- 3.1.1 The Actuarial Function (AF) must produce a written report (the Actuarial Function Report (AFR)) to be submitted to the administrative, management or supervisory body (AMSB), at least annually. The actuary should consider that the intended user is the AMSB but may also include other functions of the undertaking or any related undertaking and the relevant supervisory authorities.
- 3.1.2 The **AFR** should have a form, structure, style, level of detail and content which is appropriate to the particular circumstances, taking into account the **intended users**.
- 3.1.3 The **AFR** must express a conclusion from the **AF** on the adequacy and reliability of the **Technical Provisions** as per section 3.2 of this standard.
- 3.1.4 The **AFR** must express an opinion on the overall **underwriting** policy of the **undertaking** as per section 3.3 of this standard.
- 3.1.5 The **AFR** must express an opinion on the adequacy of reinsurance arrangements as per section 3.4 of this standard.

3.1.6 The **AFR** should:

- (a) state which Actuarial Standards apply to the work that has been carried out and whether the work complies with those Actuarial Standards;
- (b) state which Actuarial Standards apply to this report and whether the report complies with those Actuarial Standards; and
- (c) give particulars of any **material** departures from the Actuarial Standards referred to in (a) and (b) above.

THE ACTUARIAL FUNCTION

- 3.1.7 The **AFR** must document a summary of all major tasks that have been undertaken by the **AF** and their results.
- 3.1.8 The **AFR** should include a description of the main responsibilities of the **AF** and any tasks which are not required by the **Solvency II principles**. In particular it should be stated if the responsibilities and tasks of the **AF** are located at an **undertaking** or group level.
- 3.1.9 The **AFR** should set out information identifying relevant **conflicts of interest** and describing how they have been managed.
- 3.1.10 In applying 3.3 and 4.2.3.f of ESAP1 the **AF** should disclose any **material** reliance on other work and how the **AF** gained assurance on the reliability of the other work.

- 3.1.11 The **AFR** must identify the individuals responsible for writing the **AFR** and, if applicable, the person taking overall responsibility for its production.
- 3.1.12 The AFR may provide information to demonstrate that each of the contributors to the AFR, and, if applicable, the individual taking overall responsibility for the AFR, has the relevant knowledge and experience to fulfil the role.

CONTENT OF THE ACTUARIAL FUNCTION REPORT

- 3.1.13 The AFR must clearly identify any deficiencies and give recommendations as to how such deficiencies should be remedied.
- 3.1.14 The **AFR** should include sufficient information and discussion about each area covered so as to enable the **AMSB** to judge its implications.
- 3.1.15 The <u>AF</u> should consider the preference of the <u>undertaking</u>'s <u>AMSB</u> on depth of reporting and on the potential inclusion of additional topics in the <u>AFR</u>.
- 3.1.16 The **AFR** should set out the data used to reach the opinions expressed and should draw attention to any **material** areas of uncertainty and their sources, and also to any **material** judgement made in the assessments by the **AF**.

FEEDBACK ON THE ACTUARIAL FUNCTION REPORT

- 3.1.17 After submission of an **AFR** the **AF** should seek feedback from the **AMSB** on the contents of the report.
- 3.1.18 Details of whether recommendations in the **AFR** have been accepted, and, if so, on progress towards implementation, should be summarised in the next **AFR**.

3.2 Technical Provisions

3.2.1 Conclusions on adequacy and reliability of Technical Provisions

- 3.2.1.1 The **AFR** must clearly state the conclusions of the **AF** with regard to its analysis of the adequacy and reliability of the **Technical Provisions**. The conclusions should include any concerns the **AF** has in this regard and identify **material** shortcomings or deficiencies with recommendations as to how these could be remedied.
- 3.2.1.2 The **AFR** should include the results of an assessment whether the **Technical Provisions** have been calculated in accordance with Articles 75 to 86 of the **Solvency II Directive** and advise if any changes are necessary in order to achieve compliance.

3.2.1.3 The **AFR** must clearly state the sources and degree of uncertainty the **AF** has assessed in relation to the estimates made in the calculation of the **Technical Provisions**. The **AFR** should outline the circumstances which might lead to the actual outcome deviating significantly from the assumptions underlying the **Technical Provisions**.

3.2.2. Important information about Technical Provisions

- 3.2.2.1 The **AF** should ensure that the factors which have a **material** impact on the amount of **Technical Provisions**, including risk drivers and assumptions, are made clear in the **AFR**.
- 3.2.2.2 In particular the **AFR** should draw attention to any **material** judgements made in the calculation of **Technical Provisions**.

3.2.3 Disclosure of opening and closing Technical Provisions

3.2.3.1 The **AFR** should disclose the opening and closing **Technical Provisions**, split, to the extent possible, between best estimate and risk margin. A commentary on the main items of movement should be provided.

3.2.4 Co-ordination of process

3.2.4.1 The <u>AFR</u> should include a broad overview of the overall process employed in respect of the calculation of the <u>Technical Provisions</u>.

3.2.5 Sufficiency and quality of data

- 3.2.5.1 The **AFR** must provide an overview of the assessment undertaken by the **AF** of the data used in the calculation of **Technical Provisions**. This may include a description of the data and its source(s), the controls applied, and an assessment of the appropriateness (accuracy, relevance, reliability and completeness) of the data in the context of the purpose for which it is being used.
- 3.2.5.2 The AFR must identify any material uncertainties or limitations in the data and outline the approach taken to these in the context of the calculation of Technical Provisions.

 Limitations might include, but are not restricted to, its fitness for purpose, consistency over time, timeliness, information technology systems, availability of individual policy data and of historical data.
- 3.2.5.3 The **AFR** should give an overview of the business covered by the **Technical Provisions**, the split of data into homogeneous risk groups and how this split has been assessed for appropriateness in relation to the underlying risks of the **undertaking**.
- 3.2.5.4 The **AFR** should identify relevant information provided by financial markets and generally available data on **underwriting** risks and explain how it is integrated into the assessment of the **Technical Provisions**.

3.2.6 Methods and models

- 3.2.6.1 The **AFR** must provide an overview of the methods and **models** used in the calculation of the **Technical Provisions** and how their appropriateness has been assessed with regard to the main drivers of risk, the specific lines of business of the **undertaking** and the way in which it is being managed.
- 3.2.6.2 The **AFR** should draw attention to any unusual or non-standard methods which have been used. This should include, where appropriate, an overview of the methods used to calculate **Technical Provisions** including a description of the rationale for the choice of the method.
- 3.2.6.3 The **AFR** should include, where appropriate, an overview of the methods used to calculate **Technical Provisions** in respect of contracts where the insufficiency of the data has prevented the application of a reliable actuarial method, specifically those cases referred to in Article 82 of the **Solvency II Directive**. The **AFR** should include an assessment of the appropriateness of the approximations used in the calculations of **Technical Provisions** for such contracts.
- 3.2.6.4 The **AFR** must include an assessment of the appropriateness of the methods and **models** used in the calculation of options and guarantees included in insurance or reinsurance contracts.
- 3.2.6.5 The **AFR** should indicate if the **AF** assesses that there are any **material** shortcomings in the **models** and information technology systems used with regard to their ability to support the actuarial and statistical procedures deemed appropriate by the **AF** for the calculation of the **Technical Provisions**.
- 3.2.6.6 Where the calculation of <u>Technical Provisions</u> depends on multiple <u>models</u>, the <u>AFR</u> should make reference to any <u>material</u> differences between these <u>models</u> and what allowance has been made in respect of these differences.
- 3.2.6.7 The **AFR** should disclose and justify any **material** changes in methods from those used in the previous **AFR** and quantify the effect on the **Technical Provisions**.

3.2.7 Assumptions

- 3.2.7.1 The **AFR** must include a description of the data and methods used to determine the assumptions underlying the **Technical Provisions**.
- 3.2.7.2 The **AFR** should disclose the key assumptions underlying the calculation of the **Technical Provisions** and explain their appropriateness in relation to the main drivers of risk likely to affect the insurance or reinsurance obligations of the **undertaking**.
- 3.2.7.3 The **AFR** should disclose any **material** changes made to the assumptions used compared to the previous **AFR**.

- 3.2.7.4 The **AFR** should disclose its assessment of the appropriateness of **material** judgements made in the determination of assumptions. These may include, but are not restricted to, assumptions or interpretations made in relation to the following:
 - contractual options and guarantees;
 - policyholder behaviour;
 - future management actions;
 - amounts recoverable from counterparties;
 - areas of future discretion exercised by the <u>undertaking</u> which might impact its insurance or reinsurance obligations; and
 - obligations which might exist over and above contractual obligations.

3.2.8 Comparing best estimates against experience

- 3.2.8.1 The AFR must include an overview of the process used to compare best estimates against actual experience and draw attention to any concerns the AF has in regard to the effectiveness of this process.
- 3.2.8.2 The AFR should disclose the findings of the AF's review of the quality of past best estimates and the conclusions from this in relation to the appropriateness of data, methods or assumptions used in the calculation of the Technical Provisions. In reviewing the quality of past estimates, the AFR should draw attention to those areas where actual experience has deviated in a material way from the assumptions made and provide a commentary in this regard. It may assist understanding if this commentary distinguishes between deviations which are judged to arise from volatility of the underlying experience and those which are viewed as relevant to the appropriateness of the data, methods or assumptions used. The AFR should disclose any material judgement when such a distinction is made.

3.2.9. Sensitivity analysis

3.2.9.1 The **AFR** must report on the results of an analysis of the sensitivity of the **Technical Provisions** to each of the major risks underlying the obligations which are covered in the **Technical Provisions**.

3.3 Opinion on underwriting policy

3.3.1 Opinion on the overall underwriting policy of the undertaking

- 3.3.1.1 The AFR must express an opinion on the overall <u>underwriting</u> policy of the <u>undertaking</u>.
- 3.3.1.2 The **AFR** should set out how the **AF** has arrived at its opinion on the overall **underwriting** policy of the **undertaking**.
- 3.3.1.3 The AFR should explain any concerns which the AF may have as to the suitability of the

overall underwriting policy.

3.3.1.4 The **AFR** should outline recommendations to remedy any deficiencies the **AF** has identified in relation to the overall **underwriting** policy.

3.3.2 Areas of consideration

3.3.2.1 An assessment of the suitability of the overall <u>underwriting</u> policy should at least include the areas set out in 3.3.3 –3.3.7 of this ESAP.

3.3.3 Sufficiency of premiums

3.3.3.1 The AFR must conclude whether the premiums are expected to be sufficient in the light of the operation of the <u>underwriting</u> policy. The assessment must take into consideration the impact of the underlying risks (including <u>underwriting</u> risks) to which the business is exposed and the impact on the sufficiency of premiums of options and guarantees included in insurance and reinsurance contracts.

3.3.4 Environmental Changes

- 3.3.4.1 The AFR should describe the external environmental factors which have the potential to influence the profitability of new business. These factors might include inflation, legal risk and changes in the market in which the <u>undertaking</u> operates affecting business volumes and business mix.
- 3.3.4.2 The <u>AFR</u> should indicate the sensitivity of new business profitability to changes in these external environmental factors and comment on the consistency with the <u>undertaking</u>'s risk appetite.
- 3.3.4.3 The AFR should include recommendations to mitigate these risks.

3.3.5 Adjustments to Premiums

3.3.5.1 For products where premiums may be adjusted in response to experience, the AFR must summarise any instances where premiums have been adjusted and the reasons for these adjustments. Where premiums have not been adjusted in response to emerging experience (e.g. for competitive reasons), the AFR must summarise the reasons for this and provide an assessment of the impact of this decision.

3.3.6 Anti-selection

3.3.6.1 The **AFR** must include the **AF**s conclusions concerning anti-selection risks within the **undertaking**'s portfolio of contracts if these risks might have an adverse impact on the **Technical Provisions** or sufficiency of premiums. The **AFR** should outline the **AF**'s recommendations for improvements to the **underwriting** policy which might mitigate these risks.

3.3.7 Interrelationships

- 3.3.7.1 The **AFR** should outline the extent to which the overall **underwriting** policy of the **undertaking** is consistent with other policies of the **undertaking**.
- 3.3.7.2 This should at least include an assessment of the consistency with the risk appetite, risk profile, the reinsurance arrangements and the **Technical Provisions** of the **undertaking**.
- 3.3.7.3 The **AFR** should assess whether the profitability and volatility of the business plans are within the **undertaking**'s risk appetite and make any other relevant comments on the interrelationship between the plan and the risk appetite.

3.4 Opinion on reinsurance arrangements

3.4.1 Opinion on the adequacy of reinsurance arrangements

- 3.4.1.1 The AFR must express an opinion on the adequacy of the reinsurance arrangements.
- 3.4.1.2 The **AFR** should explain any concerns which the **AF** may have concerning the adequacy of the reinsurance arrangements.
- 3.4.1.3 The **AFR** should outline recommendations to improve the reinsurance arrangements, including actions which might be taken to:
 - eliminate inconsistencies in reinsurance coverage;
 - reduce the risk of non-performance by reinsurance counterparties; and
 - extend coverage of material risks.
- 3.4.1.4 The AFR should set out how the AF has arrived at its opinion. This should include a description of any alternative reinsurance arrangements considered and an analysis of their advantages and disadvantages.

3.4.2 Interrelationships

- 3.4.2.1 The **AFR** should outline the extent to which the reinsurance arrangements of the **undertaking** are consistent with the **undertaking**'s:
 - risk appetite;
 - risk profile;
 - underwriting policy; and
 - Technical Provisions,

and include recommendations as to how any inconsistencies should be remedied.

3.4.2.2 The commentary on interrelationships should incorporate the AF's assessment of the credit standing of its reinsurance counterparties.

3.4.3 Effectiveness of reinsurance arrangements

- 3.4.3.1 The **AFR** should include assessments of how the reinsurance arrangements, including any **SPV**s, might respond in a number of stressed scenarios. The scenarios might include:
 - catastrophic claims experience;
 - risk aggregations;
 - reinsurance defaults; and
 - reinsurance exhaustion.
- 3.4.3.2 The assessments should include indications of:
 - the amounts recoverable from reinsurance contracts and SPVs; and
 - the impact on the **undertaking**'s own funds.
- 3.4.3.3 The assessments should consider, if appropriate, the impact of reinstatements or renewal of reinsurance cover and the potential unavailability of reinsurance cover.
- 3.4.3.4 The <u>AFR</u> might include an assessment of the effectiveness of the reinsurance arrangements in mitigating the volatility of the <u>undertaking</u>'s own funds.

3.5 Contribution to risk management

- 3.5.1 The **AFR** should describe the areas where the **AF** has made a **material** contribution to the implementation of the risk management system and the work performed. In particular, this should cover the contribution of the **AF** to the risk modelling underlying the calculation of the capital requirements.
- 3.5.2 The **AFR** should summarise the main findings of these activities and, in particular, list recommendations for future improvements.