

Actuarial Function Guidance

Lloyd's guidance on the Actuarial Function
March 2020

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Contact Details

For technical queries:

Emma Stewart, Market Reserving & Capital

020 7327 5654 emma.stewart@lloyds.com

Ajay Shah, Market Reserving & Capital

020 7327 5682 ajay.shah@lloyds.com

For submissions and general queries:

AFReports@lloyds.com

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1 Purpose

The purpose of this document is to provide:

- Instructions and guidance in respect of the requirements of Syndicate Actuarial Functions (SAFs), including Actuarial Function Reports (AFRs)
- Deadlines and requirements for submission of SAF reporting in the 2020 calendar year
- Information on the format and timing of Lloyd's review/feedback on the SAF reporting

2 Changes for 2020 submissions

The reporting timetable has been extended for the 2020 submissions, giving two options to submit the opinions on underwriting policy and reinsurance adequacy.

The additional option is to provide opinions on underwriting policy and reinsurance adequacy at a later date (31st May 2021) if information that is supplied by the SAF to the board to support the opinions at the time of submitting the Syndicate Business Forecast (SBF) is provided to Lloyd's with the SBF. If this option is taken Lloyd's need to be informed by 15th August 2020. Further details can be found in Section 4.6.

3 Background

3.1. Regulatory Requirements

Solvency II requires undertakings to establish a formal actuarial function. The requirements of the actuarial function are specified in the regulations and expanded upon in other materials. The three levels of Europe-wide regulation behind Solvency II referenced in this document are:

- Level 1 – "DIRECTIVE 2009/138/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2009" (including subsequent amendments) – referred to as 'the Directive'
- Level 2 – "COMMISSION DELEGATED REGULATION (EU) 2015/35 of 10 October 2014" supplementing the Directive (including subsequent amendments) – referred to as 'the Delegated Acts'
- Level 3 Guidance – Including, among others, EIOPA Guidelines on the Valuation of Technical Provisions and System of Governance

The Level 1 and 2 texts relating to the actuarial function and references to other relevant documents are included in Appendix A. The requirements are outlined in detail in Section 6.

3.2. Actuarial Function at Lloyd's

For Lloyd's, the role of the actuarial function must be fulfilled at two levels:

- For each Syndicate there must be a SAF in place
- Centrally, Lloyd's must have an actuarial function in place to provide oversight of SAFs and fulfil the requirements for the actuarial function at the overall Corporation level, including production of the Lloyd's Actuarial Function (LAF) Report

This guidance relates to SAF requirements and submissions. SAFs must provide submissions covering all requirements as set out in this guidance to Lloyd's on an annual basis; this includes the formal AFR and any further documents evidencing compliance of the SAF with requirements. More information on the submission and the review undertaken by Lloyd's is included in Sections 4 and 5 respectively. Section 6 outlines the actuarial function requirements in detail and provides examples of good practice in meeting these.

A number of actuarial function requirements are included in the Lloyd's Minimum Standards across Reserving, Underwriting Strategy and Planning, Reinsurance Management and Control, Governance and Risk Management. Agents should be compliant with the Minimum Standards; although this compliance is

not part of the role of the actuarial function, there is overlap. Lloyd's will consider SAF submissions as part of assessing compliance with Minimum Standards where appropriate.

Lloyd's has collected submissions from the market relating to the requirements for the actuarial function since 2012. Since this time there has been significant progress in the quality of reporting submitted by Syndicates. Lloyd's expects to periodically refine and update the reporting and review process for these submissions as Solvency II best practice continues to develop.

4 Syndicate Actuarial Function Reporting Guidance

4.1. General

A key output from the work of the SAF is the AFR which is to inform the board of the key outputs from the SAF. This should be produced at least annually and document:

- The tasks that have been undertaken by the SAF
- The results of these tasks and conclusions drawn from them
- Any limitations of the work and recommendations for how these can be remedied

The AFR should be written for the board and not for Lloyd's.

The work undertaken should include all areas described in Section 6; however all of the detail for each area does not necessarily need to be included in the report addressed to the board. For example:

- Detail on the general requirements for the SAF (such as tasks and responsibilities and governance) may be included in the SAF Terms of Reference rather than the AFR.
- The opinion included in the report may contain a summary of the analysis underlying it only, with additional detail included in other reports.

The work of the SAF is required to comply with applicable actuarial standards. The AFR is prescribed to be produced on at least an annual basis, all other SAF materials should be subject to a review cycle that is appropriate to their content and clearly documented. We encourage timely reporting of information to the board through a series of component reports which is brought together in the AFR.

4.2. Clear conclusions

The AFR should, as a minimum, include a summary of each element of the work of the SAF. The summary should highlight the conclusions of the work, any limitations identified and make clear recommendations to be implemented in order to address these. It should also include a description of how any previous feedback from the board has been incorporated into the work of the SAF or detail the progress that has been made against previous recommendations.

4.3. Demonstrating Compliance

In order to attest compliance with each of the detailed requirements in the self-assessment template, each must be explicitly addressed in the SAF reporting. The SAF can refer to other documents; however, a summary of the work and conclusions should be included within the AFR. The absence of a comment in a particular area does not imply compliance; a positive statement confirming each item should be included and supported by any relevant analysis. For example, in order to satisfy the requirement that options and guarantees have been considered as part of the technical provisions, an explicit statement confirming this is required and should be based on sufficient analysis confirming any allowance is appropriate or would not be material.

4.4. Interaction with other Lloyd's Requirements

A number of areas are required to be discussed in both the Statement of Actuarial Opinion (SAO) report and the AFR. In addition, some of the requirements of the AFR will be discussed in the Own Risk and

Solvency Assessment (ORSA). It is expected that some analysis from the SAO or ORSA may be included as part of the AFR. Where appropriate this analysis can be summarised in the AFR with clear referencing to the SAO report or ORSA. It should be noted that where there is a difference in basis between SAO and SAF reporting (for example on any margins in claims provisions) the SAF reporting should focus on the Solvency II technical provisions.

As discussed in Section 3, there is overlap between SAF reporting and Lloyd's Minimum Standards requirements. It is expected that SAF reporting will be used as evidence of Syndicate's compliance with the relevant Minimum Standards.

4.5. Nature of SAF Opinions

There is no prescribed wording for the opinions required on underwriting policy and reinsurance adequacy, or the overall sufficiency of Solvency II technical provisions. The SAF is expected to undertake sufficiently detailed and wide-ranging analysis in order to support clear statements of opinion on the adequacy of these items. The opinion does not constitute a formal sign-off of figures but evidences the input of the SAF into these areas.

Statements of opinion are expected to be concise and clearly made. Where relevant they can include reliance and limitations, and recommendations for improvement.

4.6. AFR Submissions

The reporting timetable has been extended for the 2020 submissions, giving two options to submit the opinions on underwriting policy and reinsurance adequacy, further details below.

Submission of AFR sections for 2020 covering the General, Technical Provisions and Risk Management sections of the self-assessment template must be made by the 29th May 2020.

For submission of the opinions on underwriting policy and reinsurance adequacy, which are forward looking and relate to the prospective business plan and reinsurance arrangements for the 2021 calendar year, two options are available to SAFs:

- Option 1: Submission of the opinions to Lloyd's by the 2nd November 2020, as in previous years.
- Option 2: Provision of information that is supplied by the SAF to the board to support the opinions at the time of submitting the Syndicate Business Forecast (SBF) to Lloyd's, with submission of final opinions no later than the due date for AFR sections covering the General, Technical Provisions and Risk Management for 2021 (i.e. 31st May 2021).

For Option 2, the information provided to the board to support the opinions should include that which the SAF judges as appropriate for the board to rely upon at the time of submitting the business plan to Lloyd's.

Where the Managing Agent wishes to adopt Option 2, they should inform Lloyd's no later than the 15th August 2020 by contacting AFReports@lloyds.com. Otherwise, Lloyd's will assume that the SAF is submitting in line with Option 1.

The timescales above are subject to future review. It is not expected to allow extensions to deadlines even if this has been granted in the past.

All the submissions described in this section should be made to AFReports@lloyds.com.

5 Review of Syndicate Actuarial Function Reporting

5.1. Self-Assessment Template Submission

All syndicates are required to submit SAF reporting as outlined in Section 4.6. Submissions must include a completed self-assessment template (in Excel format) of Lloyd's review criteria for the requirements covered by the submission and the documents referenced in the template. The template is included as Appendix B.

The self-assessment template must be submitted both for the submission of the AFR sections covering the General, Technical Provisions and Risk Management sections of the template, and for the submission of the opinions on underwriting policy and reinsurance adequacy. Where Option 2 is adopted for the submission of the opinions on underwriting policy and reinsurance adequacy, the self-assessment template must be submitted with the opinions (i.e. in May).

For each submission, the full self-assessment template should be provided, not deleting any of the tabs included in the original template. It is the responsibility of SAFs to update this template as appropriate to reflect the valuation date or calendar period relevant to the submission. Where a requirement is satisfied in the reporting, the response should be marked 'Y' and a reference to the material demonstrating this included. A response must be provided for all requirements. If a requirement is marked as partially covered 'P' or not covered 'N', then any relevant reference should be included along with a comment noting the reason the requirement is not addressed and the development plans associated with this. All references should be checked to ensure they reflect the current submission.

5.2. Lloyd's Review

The completed self-assessment templates will be considered by Lloyd's and queried for completeness and accuracy as appropriate. If the template has not been completed in line with 5.1 it will be sent back for resubmission.

Lloyd's is not intending to review the reports against the assessment criteria this year. However, for those that have deficiencies highlighted from prior feedback or where we have selectively selected reports to review Lloyd's may provide specific feedback on an individual basis.

6 Requirements of the Syndicate Actuarial Function

6.1. General

This section outlines the requirements of the SAF as specified in the regulations (see Appendix A for more details), it follows the order of requirements as included in the Lloyd's template for assessing compliance; the self-assessment template is included as Appendix B. The assessment is designed to achieve a standard required to fulfil the requirements of the regulations but it is expected that the SAF will meet best market practice as this continues to develop. Although the Level 1 and Level 2 requirements are finalised, certain aspects of the requirements remain open to interpretation and this guidance will continue to be developed accordingly.

Where information required for SAF reporting is documented elsewhere, it will normally be appropriate to include a summary of the work, uncertainties and conclusions within the AFR and to include a reference to the additional documents within the AFR.

Where specific examples are referenced within the AFR these should be specific to the characteristics of the agent/syndicate.

6.1.1. Proportionality

Proportionality can be applied as part of the SAF's work in meeting the requirements. Assessment of proportionality should consider the scale, nature and complexity of the underlying risks. More detail on this

assessment and other factors to be considered on proportionality are included in guidelines 44 – 49 of the EIOPA Guidelines on the Valuation of Technical Provisions.

6.1.2. Responsibilities and Tasks

The responsibilities and tasks of the actuarial function should include all the regulatory requirements and be clearly outlined in SAF documentation. These should be outlined in the SAF Terms of Reference.

For the calculation of technical provisions, the SAF's role includes the coordination and validation of this calculation. The validation element is covered in more detail in Section 6.2.7.

6.1.3. Governance, Objectivity and Independence

Requirements for the governance of the actuarial function are included under the Directive Article 41 on System of Governance. This is further expanded upon in the EIOPA Guidelines on System of Governance and PRA Supervisory Statement SS4/13.

The actuarial function is required to be independent of the revenue-generating function of the undertaking and kept-free from the external influence of the board. It is expected that these requirements will be met by the governance associated with the actuarial function and will be outlined in its Terms of Reference. There is no prescribed governance structure for SAFs, as the most appropriate arrangement may vary according to the Syndicate structure. The governance structure should be considered by the management of each syndicate, and appropriately documented and reviewed.

The organisation of the SAF is also required to consider potential conflicts of interest. Among other items this should consider the lines of reporting and accountability for the various responsibilities of the function, particularly around validation of Technical Provisions. It is not a requirement that all possible conflicts of interest be eliminated, and it is expected that there will be a number of potential conflicts for SAFs to consider, appropriate mitigating measures adopted, and both of these items clearly documented.

6.1.4. Resourcing

The Directive Article 48 (2) requires the resourcing of the function to include knowledge of actuarial and financial mathematics, commensurate with the nature, scale and complexity of the risks inherent in the business. As for the other general requirements, this is likely to form part of the SAF Terms of Reference with clear accountability for ensuring it is fulfilled. There should be evidence of compliance with this requirement given the current make-up of the SAF and also the processes in place to ensure this is the case on an ongoing basis.

6.1.5. Compliance with Professional and Technical Standards

SAF activity and reporting should comply with all relevant professional requirements and guidance, and technical standards.

6.1.6. Consistency across Requirements

The requirements of the actuarial function cover several areas. It is therefore necessary that work is undertaken to ensure consistency of methodology/assumptions is assessed across these, and any differences considered and documented.

For example, the assumptions underlying the technical provisions should be considered for consistency with those used in capital modelling, business planning and wider risk management and where there are deviations these should be clearly explained.

6.1.7. External Data to the SAF

Where data provided externally to the SAF has been relied upon, clarity should be provided where components have not been reviewed or how comfort has been gained by the SAF to justify use of the data.

6.2. Technical Provisions

Most of the requirements for the actuarial function are concerned with processes and procedures surrounding the technical provisions. Detailed requirements need to be met across a range of areas covering the process, nature and validation of the calculation and a number of specific considerations to be made. The detail of these requirements is set out in the Delegated Acts and expanded upon in EIOPA's Guidelines for the Valuation of Technical Provisions.

6.2.1. Adequacy of the calculation

To demonstrate adequacy of the technical provisions calculation, the work of the SAF should include the following:

- A clear conclusion on the reliability and adequacy of the calculation
- Any limitations of the process and recommendations to address these
- The likely drivers of deviation from the derived estimate and how these will be considered in future
- A summary of the sensitivity of the derived result to key underlying assumptions, and if appropriate combinations of assumptions.

6.2.2. Coordination of calculation

In order to fulfil the requirement(s) relating to coordination of the technical provisions calculation, the work of the SAF should include the following:

- An overview of the process of the calculation, including at least: responsibilities, tasks and the review and sign-off process. The overview should have regard for materiality and proportionality associated with the business. There should be a clear conclusion on the reliability and adequacy of the process and any limitations and recommendations to address these should be highlighted.
- An assessment of the overall sufficiency of the technical provisions. This assessment should include qualitative and quantitative consideration of the potential for deviation from the derived estimate and focus on areas that are material and/or subject to particular uncertainty. The qualitative consideration should include a discussion of the key risks to the business and provide a description of the uncertainty. Quantitative analysis should be tailored to the nature of the underlying risks and may include figures on the likelihood of exceedance of the derived estimate and alternative scenario estimates based on varying key assumptions.
- Sufficient evidence should be included within the AFR or supporting documentation for the board to rely on the work carried out.
- Commentary on the consistency of the calculations with the relevant Directive articles and any associated texts. Any inconsistencies or ambiguities should be clearly outlined, and the approach taken justified.
- Processes for determining the accuracy, completeness and appropriateness of the data. Where any adjustments or simplifications to the data are made these should be clearly justified. Any residual data limitations should be highlighted, including a materiality assessment and recommendations to address these.
- Consideration of the appropriateness of the homogenous risk groups used for the calculation. This should include, where appropriate, reference to geographical regions, external influences, underwriting policy, claims settlement patterns and future management actions. The homogenous risk groups should also be defined in a way that is expected to be consistent over time, ensures consistency between the gross and reinsurance calculations and balances the homogeneity and credibility of data.
- Consideration of any relevant information provided by financial markets and available data on underwriting risks, including the potential for internal (such as reserving cycle) and external (such as inflation) factors to impact the provisions. This information should be appropriately integrated into the

assessment of technical provisions. Where the valuation of liabilities uses external data the SAF must demonstrate this to be more suitable than internal data. Relevant external benchmarks should be considered, where appropriate, to assist in the calculation or its validation. Any external data should be subject to the processes for ensuring the accuracy, completeness and appropriateness of data.

- Comparison of technical provisions from year to year and justification of any material differences in these. As a minimum Lloyd's expects this comparison to be undertaken at the level that forms the basis for the calculation of claims provisions (i.e. class of business and gross/reinsurance) and to consider movements in material non-claims provisions items of the technical provisions. Where there are material differences the analysis should be sufficiently detailed to uncover the drivers for these, for example comparison of movements by claim type where a particular one is driving experience. Where movements are the result of changes to methodology or assumptions the nature of, and reasons for, these should be clearly outlined.
- An assessment of the options and guarantees included in the undertaking's exposures. Any assumptions used in the valuation of options and guarantees should be consistent with current market data, current market practice and policyholder and management behaviour specific to the class of business and the undertaking. Although options and guarantees are not expected to be material in the majority of Syndicate business, an assessment of the potential for these is still required. The SAF should undertake sufficient work to assert that there is no material impact if this is the case.

6.2.3. Methodology and assumptions

To fulfil the requirement(s) relating to the appropriateness of the methodology and assumptions for the calculation, the following should be included in the work of the SAF:

- A description of the methods used in the calculation of the Technical Provisions.
- Detail on the significant judgements made in the determination of assumptions, including any approximations used. If no significant judgements have been made this should be clearly stated.
- Assessment of the appropriateness of the methods and assumptions considering the nature, scale and complexity of the underlying risks. As a minimum this should include consideration of the lines of business, data available and management of the business.
- Consideration of the nature of cashflows being quantified, including the unit of cashflow modelling and time horizon of any projections. The associated assumptions should be clearly justified.
- Consideration of any non-standard techniques and detail on these methods, including justification for their use.

6.2.4. Systems

To fulfil the requirement(s) relating to sufficient support from information technology systems to the calculation process, the SAF should consider the models and information technology systems used in the calculation, any limitations associated with these and appropriate recommendations to address these.

6.2.5. Comparison against experience

To fulfil the requirement(s) relating to comparison of estimates against experience, the work of the actuarial function should include the following:

- An actual versus expected (AvE) analysis at an appropriate level of granularity considering the segmentation in 6.2.7, to allow drivers of deviation between expected and actual experience to be identified and investigated.
- Highlighting and explaining material deviations between expected and actual experience.
- Commentary on the accuracy of previous estimates, given the emerging experience.
- The use of the AvE in the feedback loop for setting future estimates. This should include not only claims but all elements used in the projection of estimates, e.g. rate changes, geographical regions. If the deviation is not within an expected range or does not appear to be a temporary difference, then it is likely to be appropriate for changes to be made to the model or assumptions used. Given the uncertainty associated with projections it is not expected that every deviation in the AvE analysis will

lead to an update to the methodology or assumptions, but consideration should be made of the appropriateness of these considering emerging experience and the outcome of this explicitly outlined.

- Clear conclusions drawn from the AvE around the appropriateness, completeness and accuracy of data and assumptions used in the previous and current valuation.
- Clear conclusions drawn from the AvE around the appropriateness of methodologies used in the previous and current valuation.

6.2.6. Calculation in specific circumstances

The SAF should ensure that the most appropriate approximations for calculating the best estimate are used in cases where there is insufficient quality data to apply reliable actuarial methods (referred to in Article 82 of the Directive).

Any associated approximations or simplifications should be identified and assessed for appropriateness and the need for future improvements/developments considered.

6.2.7. Validation

The regulatory requirements for validation of technical provisions are outlined in Article 264 of the Delegated Regulations. Although this is not included under the role of the actuarial function in the Level 2 text, Guidelines 83-85 of the EIOPA Guidelines on the Valuation of Technical Provisions require the SAF to consider appropriate validation approaches to be taken given the characteristics of the underlying risks and with regard to proportionality. The validation should be appropriately designed and robust given the nature of the risks being covered. It is expected that any potential for conflict of interest between the coordination, undertaking and validation of the technical provisions calculation be addressed within the governance structure of the SAF and other functions involved in the process. A number of elements required as part of the calculation, such as movements analysis and AvE, may also form part of the validation process. Although a separate validation function is not required, the validation process needs to incorporate sufficient objective judgement on the process and calculation to satisfy the SAF that it is appropriate.

Where validation is carried out elsewhere there should be included a summary of the key findings in the AFR in addition to highlighting the level of independence in carrying out the validation.

The validation should be undertaken at least annually and cover the material aspects of the technical provisions calculation and the work undertaken to satisfy the SAF that each is appropriate, as a minimum including:

- How the validation has been designed including the level of independence to the calculation of the Technical Provisions.
- The elements (including future premium, claims and expenses) comprising the claims (earned) and premium (unearned) provisions
- Risk margin
- Gross and reinsurance recoveries
- Homogeneous risk groups
- The appropriateness, completeness and accuracy of the data
- The appropriateness of the grouping of policies into homogenous risk groups
- Any remedies applied to address limitations of the data
- The appropriateness of any approximations applied in the calculation of the technical provisions
- The adequacy of the assumptions used in the calculation of the technical provisions
 - This shall include assessment of the impact of changes to the assumptions regarding future management actions on the valuation of the technical provisions; where changes to an assumption about future management action have a significant impact on the technical provisions, insurance and reinsurance undertakings shall be able to explain the reasons for this impact and how the impact is taken into account in their decision-making process
- The adequacy of the methods applied in the calculation of technical provisions
- The appropriateness of the level of the technical provisions with respect to all of the obligations towards policy holder

6.3. Opinion on Underwriting Policy

Detailed requirements need to be met covering the Opinion on Underwriting Policy and several specific considerations to be made. The detail of these requirements is set out in the Delegated Acts as per article 272 in Appendix A.

6.3.1. Nature of the Opinion

To satisfy the general requirement(s) relating to the opinion on underwriting policy, the actuarial function should provide:

- An opinion on the overall business plan including articulation of how the opinion has been reached given the analysis undertaken.
- Analysis supporting the opinion. The analysis should be at a sufficient level of detail to support the conclusion of the opinion.
- Any concerns that the SAF has as to the adequacy of the business plan. In this context adequacy refers to the coverage of future claims and expenses.
- Recommendations to improve the plan and the detail and timescales for implementing these.
- Analysis on the consistency of the plan with the risk appetite. Any inconsistencies and associated recommendations should be highlighted.
- The consistency of the plan with the assumptions used in the estimation of technical provisions.

6.3.2. Sufficiency of Premium

The opinion is required to consider the sufficiency of premiums to cover future claims and expenses, taking into consideration the nature of the underlying risks and any contractual terms. To make this assessment the SAF should consider as a minimum:

- Analysis on the sufficiency of premiums to cover future claims and expenses. This analysis should consider both qualitative and quantitative factors.
- Consideration of sufficiency of premiums based on the drivers for deviation from the expected position. This should include analysis of the key areas of uncertainty and the range of outcomes if experience deviates from the expected level.
- Realistic alternatives to the business plan which would affect the distribution of outcomes. This analysis should be targeted to alternatives that may arise given current market conditions or may improve performance of the business based on risk appetite or other metrics.
- The sufficiency of premiums to cover any options or guarantees to policyholders. Any assumptions used in the valuation of options and guarantees should be consistent with current market data, current market practice and policyholder and management behaviour specific to the class of business and the undertaking. Although options and guarantees are not expected to be material in the majority of Syndicate business, an assessment of the potential for these is still required. The SAF should undertake sufficient work to assert that there is no material impact if this is the case.

6.3.3. External and Internal Influences

The opinion and supporting analysis should include consideration of the potential for internal or external influences to impact the business. These influences should be considered and implemented at the homogeneous risk group level where appropriate. As a minimum these should include:

- External influences: Inflation, legal and underwriting environment (including the underwriting cycle).
- Internal influences: Change in portfolio composition, potential concentrations of risk, premium adjustment systems, changes to internal processes.

6.3.4. Anti-Selection

The Delegated Acts defines anti-selection as the progressive tendency of a portfolio of insurance contracts to attract or retain insureds with a higher risk profile (Article 272, paragraph 6 c). To account for the

potential impact of this effect the work of the SAF informing the opinion on underwriting policy should consider:

- The potential for anti-selection to impact the portfolio. This assessment should be made based on particular risks associated with different product classes. Where the potential for anti-selection is not considered to be material this should be explicitly stated and justified.
- Underwriting processes and controls in place to manage the risk of anti-selection.
- Consideration of bonus-malus and different distribution routes on acquisition costs and anti-selection.

6.4. Opinion on Adequacy of Reinsurance

Detailed requirements need to be met covering the Opinion on Adequacy of Reinsurance and several specific considerations to be made. The detail of these requirements is set out in the Delegated Acts as per article 272 in Appendix A.

6.4.1. Nature of the Opinion

To satisfy the general requirement(s) relating to the opinion on the adequacy of reinsurance arrangements, the actuarial function should provide:

- An opinion on the adequacy of the reinsurance arrangements including articulation of how the opinion has been reached given the analysis undertaken.
- Analysis supporting the opinion. The analysis should be at a sufficient level of detail to support the conclusion of the opinion.
- Any concerns that the SAF has as to the adequacy of the reinsurance arrangements. In this context adequacy refers to the performance of the reinsurance arrangements in achieving the target risk profile of the Syndicate.
- Recommendations to improve the reinsurance arrangements, including considerations of alternative structures. The detail and timescales for implementing recommendations should also be included.
- The consistency of the assessment of reinsurance adequacy with the assumptions used in the estimation of technical provisions.

6.4.2. Risk Profile

The adequacy of the reinsurance arrangements should be considered with regard to consistency with the Syndicate risk profile/appetite and the underwriting policy/business plan. This consideration should include quantitative analysis of the impact the reinsurance has on net claims volatility.

Where the syndicate is part of a wider group consideration of the reinsurance program for the group as a whole and its impact on and appropriateness for the Syndicate should be included.

6.4.3. Credit Risks

The opinion on the adequacy of the reinsurance arrangements should consider the credit worthiness of the reinsurers. This should consider the potential exposure to losses either through reinsurer inability or unwillingness to pay (dispute risk).

6.4.4. Stress Scenarios

The adequacy of the reinsurance cover should be considered in terms of both the expected performance and that under stressed scenarios.

In particular:

- The extent to which the arrangements support the ability of the undertaking to remain solvent in stressed scenarios.
- The potential impact from aggregation of risk.
- The risk of exhaustion of cover.

- The ability of reinsurers and SPVs, from which recoverables are due, to meet their commitments in a stressed environment. For example, this could be achieved by deteriorating the credit ratings of the counterparties in order to reflect the higher risk of non-payment under stressed market conditions.

6.5. Contribution to Risk Management

6.5.1. Risk Management Framework

The Risk Management Framework is not the responsibility of the SAF. However, it is required to contribute to the effective implementation of the risk management system of the undertaking and this should include any areas of risk management that interact with the required roles of the SAF. The risk management system (Article 44, paragraph 1) is defined as comprising strategies, processes and reporting procedures necessary to identify, measure, monitor, manage and report on a continuous basis the risks, at an individual and at an aggregated level, to which they are or could be exposed, and their interdependencies.

How the SAF will contribute to the risk management framework, including any interaction with other functions, should be part of the SAF terms of reference and a summary of the work undertaken in this area included in the AFR.

6.5.2. Capital Modelling

Part of the requirement for contribution to the effective implementation of the risk management system requires the actuarial function to contribute to the modelling of the undertaking's Solvency Capital Requirement (SCR). In particular the integration of technical provision calculations with this work area, and also any other input resulting from the work of the SAF.

6.5.3. ORSA

The ORSA is a key part of the risk-management system under Solvency II. The actuarial function is required to contribute to this assessment as part of its role in contributing to risk management. This should include involvement in aspects of the ORSA that rely on output of the actuarial function which would include, as a minimum, technical provisions and consideration of the business plan and reinsurance arrangements.

Appendix A - Regulatory Requirements and Other References

The Directive

Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) is available in full here:

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02009L0138-20190113>

Relevant extracts from the Directive are included below:

Directive Article 48

Insurance and reinsurance undertakings shall provide for an effective actuarial function to:

- (a) coordinate the calculation of technical provisions;*
- (b) ensure the appropriateness of the methodologies and underlying models used as well as the assumptions made in the calculation of technical provisions;*
- (c) assess the sufficiency and quality of the data used in the calculation of technical provisions;*
- (d) compare best estimates against experience;*
- (e) inform the administrative, management or supervisory body of the reliability and adequacy of the calculation of technical provisions;*
- (f) oversee the calculation of technical provisions in the cases set out in Article 82;*
- (g) express an opinion on the overall underwriting policy;*
- (h) express an opinion on the adequacy of reinsurance arrangements; and*
- (i) contribute to the effective implementation of the risk-management system referred to in Article 44, in particular with respect to the risk modelling underlying the calculation of the capital requirements set out in Chapter VI, Sections 4 and 5, and to the assessment referred to in Article 45.*

The Delegated Acts

Delegated Regulation (EU) 2015/35 is available in full here:

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0035>

Relevant extracts from the Delegated Acts are included below:

Delegated Acts Article 264

1. Insurance and reinsurance undertakings shall validate the calculation of technical provisions, in particular by comparison against experience as referred to in Article 83 of Directive 2009/138/EC, at least once a year and where there are indications that the data, assumptions or methods used in the calculation or the level of the technical provisions are no longer appropriate. The validation shall cover the following:

- (a) the appropriateness, completeness and accuracy of data used in the calculation of technical provisions as set out in Article 19 of this Regulation;*
- (b) the appropriateness of any grouping of policies in accordance with Article 34 of this Regulation;*
- (c) the remedies to limitations of the data referred to in Article 20 of this Regulation;*
- (d) the appropriateness of approximations referred to in Article 21 of this Regulation for the purposes of calculating the best estimate;*
- (e) the adequacy and realism of assumptions used in the calculation of technical provisions for the purposes of meeting the requirements in Articles 22 to 26 of this Regulation;*
- (f) the adequacy, applicability and relevance of the actuarial and statistical methods applied in the calculation of technical provisions;*
- (g) the appropriateness of the level of the technical provisions as referred to in Article 84 of Directive 2009/138/EC necessary to comply with Article 76 of that Directive.*

2. For the purposes of point (d) of paragraph 1, insurance and reinsurance undertakings shall assess the impact of changes in the assumptions on future management actions on the valuation of the technical provisions. Where changes in an assumption on future management action have a significant impact on the technical provisions, insurance and reinsurance undertakings shall be able to explain the reasons for this impact and how the impact is taken into account in their decision-making process.

3. The validation shall be carried out separately for homogeneous risk groups. It shall be carried out separately for the best estimate, the risk margin and technical provisions calculated according to the market value of financial instruments which reliably replicate future cash flows in accordance with Article 40 of this Regulation. It shall be carried out separately for technical provisions where the matching adjustment referred to in Article 77b of Directive 2009/138/EC is applied. In relation to the best estimate, it shall be carried out separately for the gross best estimate and amounts recoverable from reinsurance contracts and special purpose vehicles. In relation to non-life insurance obligations, it shall be carried out separately for premium provisions and provisions for claims outstanding.

Delegated Acts Article 272

1. In coordinating the calculation of the technical provisions, the actuarial function shall include all of the following tasks:

(a) apply methodologies and procedures to assess the sufficiency of technical provisions and to ensure that their

calculation is consistent with the requirements set out in Articles 75 to 86 of Directive 2009/138/EC;

(b) assess the uncertainty associated with the estimates made in the calculation of technical provisions;

(c) ensure that any limitations of data used to calculate technical provisions are properly dealt with;

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(d) ensure that the most appropriate approximations for the purposes of calculating the best estimate are used in cases

referred to in Article 82 of Directive 2009/138/EC;

(e) ensure that homogeneous risk groups of insurance and reinsurance obligations are identified for an appropriate

assessment of the underlying risks;

(f) consider relevant information provided by financial markets and generally available data on underwriting risks and

ensure that it is integrated into the assessment of technical provisions;

(g) compare and justify any material differences in the calculation of technical provisions from year to year;

(h) ensure that an appropriate assessment is provided of options and guarantees included in insurance and reinsurance contracts.

2. The actuarial function shall assess whether the methodologies and assumptions used in the calculation of the technical provisions are appropriate for the specific lines of business of the undertaking and for the way the business is managed, having regard to the available data.

3. The actuarial function shall assess whether the information technology systems used in the calculation of technical provisions sufficiently support the actuarial and statistical procedures.

4. The actuarial function shall, when comparing best estimates against experience, review the quality of past best estimates and use the insights gained from this assessment to improve the quality of current calculations. The comparison of best estimates against experience shall include comparisons between observed values and the estimates underlying the calculation of the best estimate, in order to draw conclusions on the appropriateness, accuracy and completeness of the data and assumptions used as well as on the methodologies applied in their calculation.

5. Information submitted to the administrative, management or supervisory body on the calculation of the technical provisions shall include at least a reasoned analysis on the reliability and adequacy of their calculation and

on the sources and the degree of uncertainty of the estimate of the technical provisions. That reasoned analysis shall be supported by a sensitivity analysis that includes an investigation of the sensitivity of the technical provisions to each of the major risks underlying the obligations which are covered in the technical provisions. The actuarial function shall clearly state and explain any concerns it may have concerning the adequacy of technical provisions.

6. Regarding the underwriting policy, the opinion to be expressed by the actuarial function in accordance with Article 48(1)(g) of Directive 2009/138/EC shall at least include conclusions regarding the following considerations:

- (a) sufficiency of the premiums to be earned to cover future claims and expenses, notably taking into consideration the underlying risks (including underwriting risks), and the impact of options and guarantees included in insurance and reinsurance contracts on the sufficiency of premiums;
- (b) the effect of inflation, legal risk, change in the composition of the undertaking's portfolio, and of systems which adjust the premiums policy-holders pay upwards or downwards depending on their claims history (bonus-malus systems) or similar systems, implemented in specific homogeneous risk groups;
- (c) the progressive tendency of a portfolio of insurance contracts to attract or retain insured persons with a higher risk profile (anti-selection).

7. Regarding the overall reinsurance arrangements, the opinion to be expressed by the actuarial function in accordance with Article 48(1)(h) of Directive 2009/138/EC shall include analysis on the adequacy of the following:

- (a) the undertaking's risk profile and underwriting policy;
- (b) reinsurance providers taking into account their credit standing;
- (c) the expected cover under stress scenarios in relation to the underwriting policy;
- (d) the calculation of the amounts recoverable from reinsurance contracts and special purpose vehicles.

8. The actuarial function shall produce a written report to be submitted to the administrative, management or supervisory body, at least annually. The report shall document all tasks that have been undertaken by the actuarial function and their results and shall clearly identify any deficiencies and give recommendations as to how such deficiencies should be remedied.

Other References

PRA supervisory Statement SS4/13: Solvency II: Applying EIOPA's preparatory guideline to PRA-
authorised firms

<https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/supervisory-statement/2013/ss413>

EIOPA Guidelines on System of Governance

<https://www.eiopa.europa.eu/content/guidelines-system-governance>

EIOPA Guidelines on the Valuation of Technical Provisions

https://www.eiopa.europa.eu/content/guidelines-valuation-technical-provisions_en

IFoA Seminar on the Actuarial Function – Lloyd's Vision

<https://www.actuaries.org.uk/learn-develop/attend-event/actuarial-function-general-insurance>

Appendix B - Lloyd's Self-assessment Template

Provided in Excel format "Syndicate Actuarial Function Report Review Self Assessment" at this link:

<https://www.lloyds.com/market-resources/regulatory/solvency-ii/information-for-managing-agents/guidance-and-workshops/technical-provisions-and-standard-formula>

There have been no changes to the questions included in the Self-Assessment template, however, Question 5.1, which addresses sub-requirement 1(c), has moved from sheet "Questionnaire - TP 1a" to sheet "Questionnaire - TP 1c".