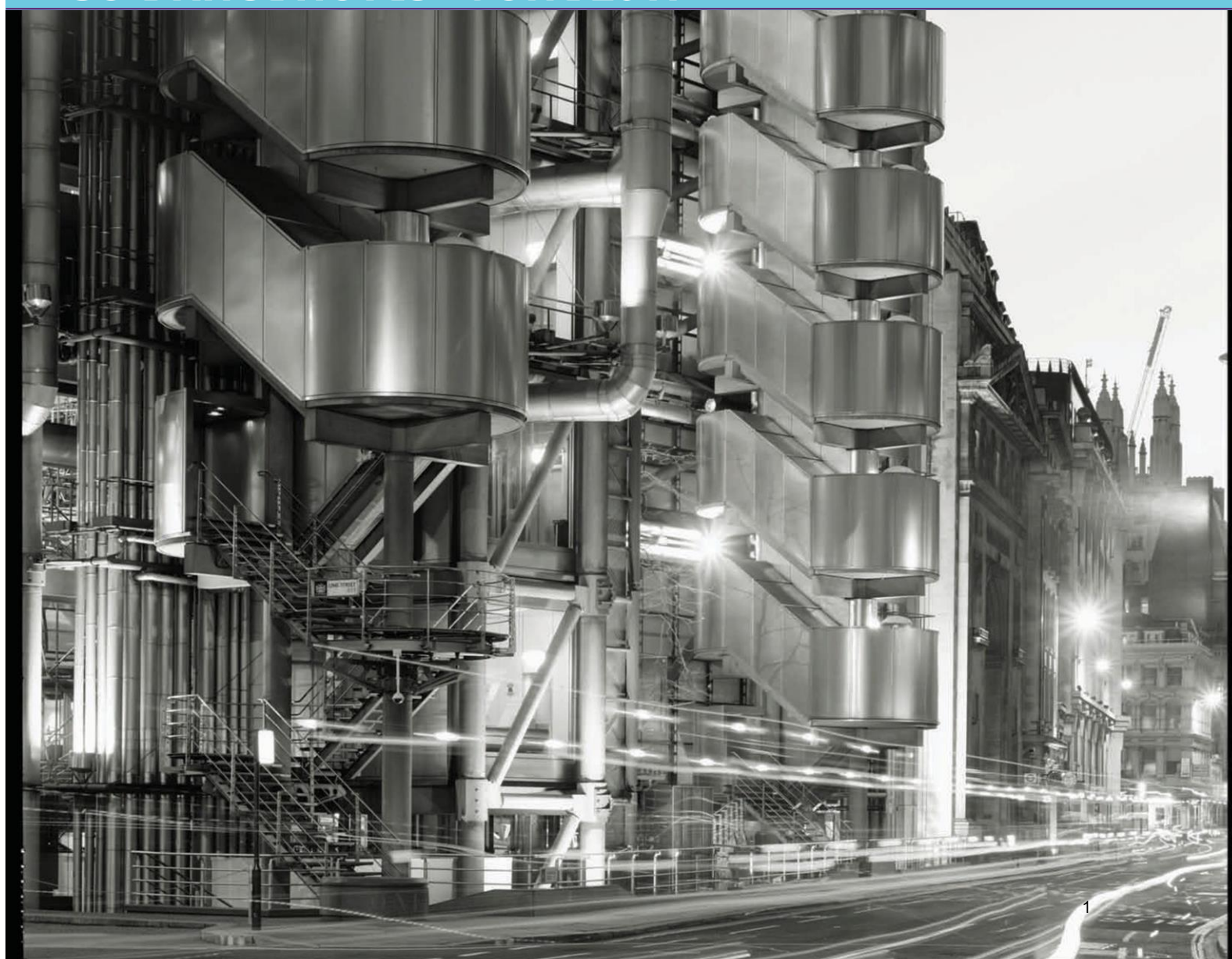


# SYNDICATE SCR FOR 2018 YEAR OF ACCOUNT

**INSTRUCTIONS FOR SUBMISSION OF THE LLOYD'S CAPITAL RETURN  
AND METHODOLOGY DOCUMENT FOR CAPITAL SETTING**

**GUIDANCE NOTES – JUNE 2017**





## CONTENTS

Introduction	4
Submission requirements and deadlines	4
Deadlines for the Lloyd's Capital Return (LCR) and Validation report	4
LCR submission	5
Reinsurance contract boundaries	5
One-year SCR and 'SCR to ultimate'	6
Lloyd's Capital Return (LCR)	6
Reinsurance Acquisition Costs	7
SCR methodology documentation	7
Link to Validation	7
Capital setting	8
Uncertainty due to widening of terms and conditions	8
Cyber	8
Liquidity risk	8
Non-modelled risks	8
Modelling of multi-year policies	9
Foreign exchange	9
<b>Appendices</b>	<b>10</b>
Appendix 1 - SCR documentation: topics to be covered	10

## Introduction

- 1.1 These instructions focus on submissions for the 2018 YOA Syndicate Solvency Capital Requirement (SCR) for member capital setting. These instructions are updates to the [2017 YOA SCR Guidance](#).
- 1.2 Each managing agent is required to maintain compliance to the Solvency II standards and requirements on an ongoing basis.

## Submission requirements and deadlines

- 1.3 The Lloyd's Capital Return (LCR), supporting methodology document, Analysis of Change (AoC) and 2018 YOA SCR Supplementary Questionnaire are required for all syndicates with an open underwriting year of account, including those in run-off or underwriting RITC business only. This includes syndicates planning to close all years of account at December 2017, since this information is required for calculating the reinsuring member(s) capital requirement. Lloyd's will make adjustments centrally to the SCRs of affected syndicates after the RITC contract has been finalised.
- 1.4 There will be only one LCR submission for 2018 YOA. Details are given below.

## Deadlines for the Lloyd's Capital Return (LCR) and Validation report

- 1.5 As stated in [Market Bulletin Y5083](#), there will be two deadlines for the LCR submission (dependent on capital structure): 13<sup>th</sup> September and 2<sup>nd</sup> October 2017. As a result, there are two deadlines for submission of the AoC and validation report. These are summarised below:

	Capital Structure	LCR deadline (by 1pm)	AoC deadline (by 1pm)	Validation report deadline (by 1pm)
<b>Group 1</b>	Syndicate with spread member capital and Managing Agents with Special Purpose Arrangements (SPA)	13 <sup>th</sup> September	15 <sup>th</sup> September	22 <sup>nd</sup> September
	Syndicates with member consolidation requirements	13 <sup>th</sup> September	15 <sup>th</sup> September	22 <sup>nd</sup> September
	Managing Agents with multiple syndicates – where at least one is required to submit on 13 <sup>th</sup> Sept (see above)	13 <sup>th</sup> September	15 <sup>th</sup> September	22 <sup>nd</sup> September
<b>Group 2</b>	Syndicates with members who have Letter(s) of Credit (LoC)	2 <sup>nd</sup> October	5 <sup>th</sup> October	9 <sup>th</sup> October
	Syndicates with dedicated single member corporate capital	2 <sup>nd</sup> October	5 <sup>th</sup> October	9 <sup>th</sup> October

## LCR submission

- 1.6 All forms within the LCR must be completed in each submission. The LCR must be submitted by 1pm on the appropriate deadline date (see 1.5). The LCR, which captures the quantitative information required, including the SCR, must be submitted via the Core Market Returns (CMR) system.
- 1.7 The supporting SCR methodology document and the 2018 YOA SCR Supplementary Questionnaire are required for the September (or October) submission. The 2018 YOA Analysis of Change (AoC) template must be submitted by 1pm on the appropriate deadline date (via email to [SCRReturns@lloyds.com](mailto:SCRReturns@lloyds.com)). Agents submitting a request for approval for a major model change are advised to provide supporting documentation on the rationale for the change and its quantitative impact. As in previous years, all supporting documentation due by the date of submission should be included as an attachment to the LCR via form 990.
- 1.8 Applications for major model changes can be submitted with the LCR. Further information is available in the [Major Model Change Guidance](#).
- 1.9 Major model changes can also be submitted at other times of the year. Lloyd's will provide feedback on major model changes submitted before the LCR submission within 6 weeks, between 1 June 2017 – 15 August 2017. This feedback will be based primarily on the review of the change in the model or risk profile. It will also focus on the Analysis of Change against the latest LCR submission for the 2017 YOA (including any loadings applied for year-end coming-into-line (CIL)) both in absolute amounts and relative to exposure. For agents that do submit these items, Lloyd's will review them and provide feedback on significant findings. This does not mean that further issues will not arise as reviews and discussion continue to take place. The receipt of early feedback should enable agents to address significant issues, and reduce time pressures prior to the LCR submission. It is expected that non-material issues will continue to be discussed after the initial feedback.
- 1.10 Lloyd's requires agents to conduct a full validation cycle and submit a validation report by 1pm on the appropriate deadline date submitted via email to [SCRReturns@lloyds.com](mailto:SCRReturns@lloyds.com). The SCR methodology document should include a summary of the validation work supporting the SCR. If there is a difference between the validated modelled outputs and the final submitted numbers, then a separate report validating the difference may be submitted. Updated validation guidance will be issued in 2017.
- 1.11 The 2018 YOA Analysis of Change template should compare against the latest LCR submission for the 2017 YOA (including any loadings applied for year-end CIL). More information and detail provided on the movements between submissions will enhance the effectiveness and efficiency of our review.

## Reinsurance contract boundaries

- 1.12 Lloyd's [guidance](#) on technical provisions states:

“Any future premiums payable on existing or legally obliged outwards reinsurance contracts (e.g. minimum and deposit premiums, and/or outwards reinsurance premiums owed in respect of the ceded business to date) should be included. These premium payments should be included at the level to which they are contractually obliged based on existing or legally obliged inwards cover, with no consideration to the future inwards business.”
- 1.13 The internal models for 2018 YOA must allow for future premiums payable on existing or legally obliged reinsurance contracts in the technical provisions.

- 1.14 Lloyd's will adjust the ultimate SCR to ensure Economic Capital Uplift (ECU) (currently 35% of the ultimate SCR) is not understated as a result of this change in treatment of reinsurance premiums. The calculation for the adjustment will be provided in the Supplementary Questionnaire. The agent is required to enter the adjustment in form 309 of the LCR.

#### **One-year SCR and 'SCR to ultimate'**

- 1.15 Lloyd's requires each syndicate to determine its SCR on both a one-year basis (consistent with the Solvency II regulatory basis) and 'to ultimate'.
- 1.16 The critical difference between the one-year SCR and 'SCR to ultimate' is that the Solvency II regulatory one-year SCR captures the risk that emerges over the next 12 months (to 31 December 2018) and the ultimate measure captures the adverse development until all liabilities have been paid. The one-year SCR is the difference between the current balance sheet (projected as at 31 December 2017) and what it would be in one year's time (i.e. 31 December 2018) including claims paid during the year, given a 99.5th percentile adverse outcome.
- 1.17 This means, inter alia, that at 31 December 2018 for the one-year SCR calculation, there is no need to model downside risk that would happen in 2019 on policies that were written during 2018 but expire in 2019. For the avoidance of doubt, this would include allowance for adverse events during the 12 month period that would impact the construction of the Solvency II balance sheet as at 31 December 2018.
- 1.18 Consequently, the outcomes on this business for the 2019 period of the policy cover are included at their mean best estimate (as calculated across all simulations, with the mean being set at 31 December 2018) of the premiums and claims arising – it is contracted for, so needs to be in the balance sheet at Time 1. The one-year SCR at 1 January 2018 considers the adverse development in reserves over 2018 only, although analysis shows that (particularly for long tail business) reserves can continue to move out significantly after 12 months – so within the ultimate calculation required by Lloyd's, but outside the one-year SCR.
- 1.19 Lloyd's considers that the ultimate SCR is the more appropriate risk measure on which to base member capital setting at Lloyd's. This captures the risk in respect of the planned underwriting for the prospective year of account in full covering ultimate adverse development and all exposures. However calculation of the 12 month SCR is a regulatory requirement and syndicates are expected to appropriately address its determination in methodology documents and as part of validation.

#### **Lloyd's Capital Return**

- 1.20 Article 101 in the Level 1 Directive requires firms to ensure all quantifiable risks are taken into account and that they model their risks, including calibration to the 99.5th percentile over a one-year period (SCR). The LCR captures quantitative information that, alongside the qualitative model validation work, allows agents to demonstrate that they have systems enabling them to identify, measure, manage and report risk and calculate the SCR.
- 1.21 The LCR provides two figures for the 99.5th percentile: the Solvency II statutory one-year balance sheet to balance sheet SCR and also the Lloyd's risk 'to ultimate' SCR. The LCR includes some data that forms a direct input into and is used to calibrate the Lloyd's Internal Model (LIM).
- 1.22 The supporting analysis within each form provides additional evidence that the model is producing reasonable and adequate capital assessments for each risk category. The prescriptive basis for completion, as set out in detail in Section 5 of the [2017 YOA SCR](#)

[Guidance](#), will also enable meaningful benchmarking. These supplement the notes provided with the LCR on Core Market Returns.

### **Reinsurance acquisition costs**

- 1.23 Reinsurance acquisition costs should be allowed for in the Technical Provisions and should be reported in form 312 of the LCR. Acquisition costs for outwards reinsurance should be allowed for in net premium and not reported in the net acquisition cost. This is to be consistent with the TPD (see [TPD FAQ](#) for more information). Therefore, net premium in column K should include the acquisition costs for outwards reinsurance. So net acquisition cost in column L should be equal to the gross acquisition cost in column E.

### **SCR methodology documentation**

- 1.24 Although a single SCR methodology document is encouraged, where the methodology has been set out in previous submissions to Lloyd's and remains relevant, agents do not need to repeat information. A clear reference to the appropriate sections within other documentation will suffice provided that this documentation is also submitted as an appendix.
- 1.25 Agents may submit two separate documents for modelling methodology and parameterisation. If a document has not been updated due to there being no changes to the modelling assumptions a confirmation statement should be provided in the final document.
- 1.26 As a guideline, managing agents should prepare the methodology document in accordance with requirements under Article 125 to document the design and operational details of the internal model. The document should be prepared with the objective of demonstrating equivalent compliance with Articles 121 to 124 and provide a detailed outline of the theory, assumptions and mathematical and empirical bases underlying the internal model.
- 1.27 Agents should consider the principles of Article 243 of the Delegated Acts which requires that the document is "...sufficient to ensure that any independent knowledgeable third party would be able to understand the design and operational details of the internal model and form a sound judgement as to its compliance with Article 101 and Articles 120 to 124 of Directive". Managing agents should treat the Lloyd's review team member(s) as the knowledgeable party. Appendix 1 contains a list of topics that should be covered to enable Lloyd's review team to gain a sufficient understanding of the model. Managing agents should submit the completed list, mapping the documents to the topics in Appendix 1, along with the LCR return.
- 1.28 Accordingly, agents should include all information that they would reasonably believe would influence the judgement of a third party regarding the appropriateness of the methodology and the adequacy of the SCR produced. As a guideline, if agents consider an analysis or commentary might be useful then we would encourage its inclusion.

### **Link to Validation**

- 1.29 Lloyd's considers model validation is an essential process both for validating both the SCR and an agent's status against the Solvency II tests and standards. We expect the agents to conduct full validation of the model over a period of 3 years. However the validation cycle each year must validate material risks and the SCR numbers for 2018 YOA. The validation report should be submitted by the appropriate deadline date (see 1.5). The report should validate and support the SCR submission made (both on a 12 month and ultimate basis) and will also be expected to have addressed any feedback provided by Lloyd's in previous reviews.



- 1.30 Validation reports may be based on draft SCR numbers for 2018 YOA. This draft SCR must not be a rolled forward estimate and should be based on a business plan deemed appropriate at the time. Validation of any major changes to the assumptions or outputs of the draft version should also be included in the final validation report.
- 1.31 If there is a difference between the draft SCR numbers validated in the main report and the submitted SCR, then a separate supplementary report may be submitted on the appropriate validation report deadline date.

### **Capital setting**

- 1.32 No changes to the process. Please refer to the [2017 YOA SCR Guidance](#) for further details.

### **Uncertainty due to widening of terms and conditions**

- 1.33 The market is continuing to soften. Lloyd's has identified a number of areas where terms and conditions are widening. There is a concern that terms can be widened but if the internal models are not adjusted to capture the additional risk then there is no internal "cost" to the underwriting decision.
- 1.34 Managing agents are expected to allow for uncertainty in areas where terms and conditions are widening and provide explanation of the parameterisation process in the methodology document submitted with the LCR.

### **Cyber**

- 1.35 The SCR reviews for 2018 YOA will continue to focus on the parameterisation and validation of all cyber lines of business the syndicate is planning to write. Details of the parameterisation process should be included in the methodology document submitted with the LCR.
- 1.36 Syndicates are not required to model cyber lines of business separately. Depending on the nature of business mix, an aggregate class structure may be used in the internal model. However, agents should aim to model it separately if appropriate and details of the parameterisation of cyber and the rationale behind the selected class structure should be provided in the methodology document.
- 1.37 The impact of indirect cyber on other lines of business should be clearly explained in the SCR. This will be an area of focus for Lloyd's for 2018 YOA.
- 1.38 Agents are required to provide additional information on cyber (direct and incidental), both qualitative and quantitative, in the Supplementary Questionnaire.

### **Liquidity risk**

- 1.39 Lloyd's has identified liquidity risk as one of the areas to focus on, especially for heavily reinsured syndicates. Evidence of availability of sufficient financial resources (or prove it can secure them at excessive cost) to enable a syndicate to meet its obligations as they fall due should be included in the documents supporting the LCR submission.

### **Non-modelled risks**

- 1.40 The SCR and validation report reviews for 2018 YOA will focus on the parameterisation and validation of non-modelled risks. Managing agents should provide adequate information to Lloyd's to assist with the review of the SCR.



### **Modelling of multi-year policies**

- 1.41 The SCR reviews for 2018 YOA will continue to focus on the modelling of multi-year contracts in the internal model. Details of the modelling process should be included in the methodology document submitted with the LCR.
- 1.42 Multi-year contracts should be modelled until run-off for the estimation of the ultimate SCR. This applies specifically to policies that cannot be cancelled by an insurer. A syndicate's internal model should estimate lapse risk for policies where the insured reserves the right to cancel before run-off.
- 1.43 Modelling of exposure should be clearly explained for policies where the exposure increases with every passing year. The impact of the exposure assessment on the catastrophe losses should be included in the methodology document. The earning pattern for the portfolio should be consistent with the duration of the multi-year contracts.

### **Foreign exchange**

- 1.44 The LCR should be reported in converted sterling using the published 30 June 2017 rates, unless it is a resubmission for the mid-year coming into line exercise which should use the published 31 December 2017 rates. The rates will be set out in a Market Bulletin.
- 1.45 The managing agent may prepare its underlying model in any currency and present figures in the methodology document in US dollars where that is the dominant currency of exposure. All figures presented in the LCR, Supplementary Questionnaire and Analysis of Change, however, must be reported in converted sterling, as above. All figures presented in the LCR are at one decimal place with the exception of the FX rate, which has two decimal places.
- 1.46 Lloyd's expects models to allow for the risk of unfavourable currency fluctuations following a severe loss unless the syndicate can demonstrate that the Funds at Lloyd's (FAL) strategy would deem this unnecessary. For example, if all catastrophic losses are expected in USD and the dedicated members supporting the syndicate have a defined strategy, with history, of holding USD FAL then this risk can be assumed to be mitigated. Otherwise, this situation should be included in the models.

## **APPENDIX 1 – SCR DOCUMENTATION: TOPICS TO BE COVERED**

The SCR documentation should be sufficiently detailed to allow “...any independent knowledgeable third party [to] be able to understand the design and operational details of the internal model and form a sound judgement as to its compliance with Article 101 and Articles 120 to 124 of Directive” (Article 243 of the Delegated Acts).

This Appendix provides a detailed listing of topics that agents should comment on in order to enable Lloyd’s to form such a judgement.

Agents should apply the principle of proportionality in their documentation. The items below should be discussed in greater detail for more material risks. Methodologies and assumptions applying to more than one risk can be described once, with variations or exceptions discussed where appropriate. Some items will not be relevant to all approaches. The objective should be to provide a start-to-finish “walkthrough” of the steps taken in the analyses and modelling.

	Methodology or Assumption	Example	SCR documentation reference	
<b>1</b>	<b>Insurance risk</b>		<b>Premium risk</b>	<b>Reserve risk</b>
<b>1.1</b>	<b>Data selection and groupings</b>			
	Valuation date of data used			
	Reporting basis: underwriting year, accident year or reporting year			
	Gross or net claims			
	Paid and / or incurred claims			
	Adjustments to data	Historical claims inflation; IBNER on large claims		
	Claims history excluded from the analysis and reasons for excluding	Specific accident or underwriting years; discontinued business		
	Claim size definitions and groupings used in the analysis	All claim sizes modelled together; Attritional / large / cats analysed separately		
	Class groupings used in the analysis and reasons if different from classes used in pricing/ best estimate reserving	Reserve risk: aggregating triangles		
	External data or benchmarks	LMA data		
<b>1.2</b>	<b>Distributions and intra-risk dependencies</b>			
	Granularity of reserve risk distributions by reserve type	Total outstanding reserve; Case / IBNR / IBNER modelled separately		
	Classes of business in run-off and special modelling considerations	COV of reserves increases with time since discontinued		
	Reserve margins and credit claimed			
	New classes of business and special modelling considerations			

	Modelling of underwriting cycle and/or rate changes			
	Planned exposure increases / decreases	Material changes to policy terms & conditions		
	Distribution assumption(s) and parameterisation method(s)	Reserve risk: Distribution-free for Mack method; Over-dispersed Poisson GLM with bootstrap  Premium risk: Pareto distribution fit to historical large claims		
	Method for determining the goodness-of-fit of the distribution	Reserve risk: residual patterns if using triangle based method  Premium risk: Chi-square or other test with large claim distribution		
	Allowance for parameter uncertainty	Reserve risk: bootstrap if using bootstrap-based method;  Premium risk: allowance for variability in parameters of Pareto large claim distribution		
	Application of user defined options in external software	Reserve risk: bias adjustment and centring of residuals		
	Exposure/ILF curve selection and method for converting to frequency/severity distribution if using exposure-based method for premium risk	Premium risk: SwissRe curve parameter and why chosen; loss ratio and frequency assumptions, etc.		
	Allowance for future trends in claim costs	Claims inflation; judicial ruling		
	Allowance for events not in data (ENIDs)	Latent claims		
	Adjustments to tail of distribution	Capping to reflect policy limits;  Fattening the tail for extreme events not captured in the history		
	Method for scaling reserve risk distribution to actuarial best estimate	Multiply COV of ultimate claims by actuarial best estimate ultimate		
	Method for estimating variability in total unpaid claims if using incurred data	Simulate ultimate claims from COV of ultimate claims derived from incurred data; subtract paid claims		
	Treatment of allocated claims expense	Explicitly modelled as percentage of claims or included with claims;  Consistency with business plan and TP assumptions		

	Treatment of discounting and investment income	Discussion RE: non-discounting of stressed claims;		
	Allocation of risk between premium and reserve risk on the proposed YOA if modelling on an UWY basis	Proportional allocation based on earnings pattern		
	Application of reinsurance programmes	Explicit calculation of recoveries based on programme terms; variable or fixed net-to-gross ratio		
	Allowance for RI exhaustion and dispute risk			
	Dependencies between accident or underwriting years	Drivers including cats or inflation; Explicit dependencies using copulas or shock factors		
<b>1.3</b>	<b>One-year risk horizon and risk margin</b>			
	Method for determining one-year risk	Reserve risk: actuary-in-a-box or risk recognition pattern Premium risk: earnings pattern		
	Risk margin derivation			
	Allocation of risk margin credit between ultimate reserve risk and premium risk			
<b>1.4</b>	<b>Validation summary</b>			
	Summary description of validation tests applied to Insurance risk and their outcome	Refer to <a href="#">Validation Guidance</a> Appendix 1 for examples		
	Summary of material expert judgements and their justifications			
	Method for ensuring consistency between reserve risk and premium risk volatility	Ultimate COVs decrease with age of underwriting/accident year		
	Appropriateness of distributions at 1:200 and other percentiles	Stress tests; comparisons to claims history		
	Consistency between the methods used in the model and the methods used to calculate the technical provisions			

	Consistency with business plan	Loss ratios and premium		
	Consistency between one-year and ultimate risk	One-year risk less than ultimate (prior to reduction for risk margin); One-year emergence relative to ultimate is higher for short-tailed classes		
	Insurance risk exceeds premium risk and reserve risk individually			
<b>2</b>	<b>Credit risk</b>		<b>RI credit risk</b>	<b>Other credit risk</b>
<b>2.1</b>	<b>Data selection and groupings</b>			
	Description of all sources of counterparty risk	RI credit risk: reinsurers, ILWs Other credit risk: brokers, coverholders, third party administrators, banks and investment counterparties		
	Creditor groupings for modelling probability of default	RI credit risk: reinsurers grouped by credit rating or modelled individually Other: brokers or cover-holders grouped by credit rating or modelled individually		
<b>2.2</b>	<b>Distributions and intra-risk dependencies</b>			
	Probability of default assumptions			
	Allowance for credit rating downgrade or transition			
	Credit risk mitigation and how modelled	Funds withheld and letters of credit; percentile of recoverables at which security is held		
	Loss given default/recovery rate assumptions, including evidence of not relying "solely or automatically on external credit assessments" (Delegated Act Article 254 paragraph 4)	RI credit risk: S&P credit ratings, with review of additional information that may have emerged on a reinsurer since the last rating was issued		
	Dependencies between creditors	RI credit risk: dependency between large natural cat event and multiple reinsurer downgrade and/or default		
	Concentration risk	RI credit risk: exposure at 1:200 by reinsurer		

	Basis risk on RI recoveries indexed to event or market results	ILW basis risk		
	Allowance for RI credit risk on intra-group reinsurance			
	Allowance for RI credit risk on reinsurance purchased from other Lloyd's syndicates			
	Impact of simplifications of net-to-gross calculation on RI credit risk	Understatement of recoverables in tail due to fixed net:gross assumption; non-modelled contracts		
<b>2.3</b>	<b>Validation summary</b>			
	Summary description of validation tests applied to Credit risk	Refer to <a href="#">Validation Guidance</a> Appendix 1 for examples		
	Summary of material expert judgements and their justifications			
	Credit risk exceeds RI credit risk and Other credit risk individually and their outcome			
<b>3</b>	<b>Market risk</b>		<b>Market risk</b>	
<b>3.1</b>	<b>Data selection and groupings</b>			
	Description of primary sources of market risk and their materiality	Foreign exchange rate risk; interest rate risk; investment return risk; liquidity risk; asset-liability mismatch		
	Sources of data used for modelling economic series (if not using an external ESG)			
<b>3.2</b>	<b>Distributions and intra-risk dependencies</b>			
	ESG used (if any) and key assumptions			
	Mean reversion assumption and economic series to which it applies			
	Allowance for risk arising from change in risk-free rate			
	Dependencies between economic series	USD and GBP; real interest rates and inflation		
	One-year risk estimation and explanation of difference with ultimate	Analysis of why one-year risk exceeds ultimate (if true)		
	Justification for time horizon if not one-year			



	Method used to allocate sources of market risk on Form 314		
<b>3.3</b>	<b>Validation summary</b>		
	Summary description of validation tests applied to Credit risk and their outcome	Refer to <a href="#">Validation Guidance</a> Appendix 1 for examples	
	Summary of material expert judgements and their justifications		
<b>4</b>	<b>Operational risk</b>		<b>Op risk</b>
<b>4.1</b>	<b>Data selection and groupings</b>		
	Categorisation of operational risks		
	Mapping to the risk register		
	Operational risks arising from insurance risk	Rogue underwriter; mis-reporting of case reserves; business interruption	
	Modelling of operational risks arising from the following specific areas (if relevant to syndicate's business) <ul style="list-style-type: none"> <li>delegated underwriting</li> <li>new syndicates and / or new classes of business</li> <li>growth</li> </ul>		
<b>4.2</b>	<b>Distributions and intra-risk dependencies</b>		
	Trigger for operation risk losses	Stand-alone frequency / severity; conditional on external factor, e.g. premium growth	
	Types of distributions used		
<b>4.3</b>	<b>Validation summary</b>		
	Summary description of validation tests applied to Operational risk and their outcome	Refer to <a href="#">Validation Guidance</a> Appendix 1 for examples	
	Summary of material expert judgements and their justifications		
<b>5</b>	<b>Dependencies (between SCR risk categories)</b>		<b>Dependencies</b>
<b>5.1</b>	<b>Data selection and groupings</b>		
	Description of data used to parameterise or validate dependencies	Historical aggregated class of business loss ratios to backtest modelled aggregated class loss ratios	
	Description of dependency structures/ relationships	Between attritional and large claims for premium risk within a class of business	

<b>5.2</b>	<b>Inter-risk dependencies</b>			
	Key drivers of dependency and their impact in the tail	Cat events and inflation driving dependency between underwriting classes		
	Explicit dependencies and their impact in the tail	Copulas and matrices; common shock factors		
<b>5.3</b>	<b>Validation summary</b>			
	Summary description of validation tests applied to Credit risk and their outcome	Refer to <a href="#">Validation Guidance</a> Appendix 1 for examples		
	Summary of material expert judgements and their justifications			
<b>6</b>	<b>SCRs and risk margin</b>		<b>SCRs and RM</b>	
	Method for determining one-year risk	Reserve risk: actuary-in-a-box or risk recognition pattern Premium risk: earnings pattern		
	Risk margin derivation			
	Allocation of risk margin credit between ultimate reserve risk and premium risk			
	Method used to select 99.5 <sup>th</sup> percentile for SCR and each risk category	Average over 99.4 <sup>th</sup> – 99.6 <sup>th</sup> percentiles of simulations		
	Number of simulations and estimation of simulation error			
	Analysis of change from last year's LCR by risk category and explanation of differences			
<b>6</b>	<b>Other areas</b>		<b>SCRs and premium risk</b>	
	Method of modelling multi-year risks			
	Cyber risk modelling	Modelling of direct cyber Modelling of incidental cyber and the impact on dependencies between classes		
	Liquidity risk			
	Non modelled risks			
	Widening of terms and conditions	Any impact on modelling of losses		