2022 LCR Instructions

Instructions for Submission of 2022 Lloyd’s Capital Return and Supporting Documentation

July 2021

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1 Purpose

This document provides instructions for the submission of the 2022 Lloyd's Capital Return (LCR) and any supporting documents required. It also provides information in respect of the structure and timing of Lloyd's review and any specific focus areas for Lloyd's in 2021.

These instructions should be considered in conjunction with the Lloyd's Capital Guidance and the Lloyd's Minimum Standard on Modelling, Design and Implementation (MS 13), which sets out the minimum requirements relating to internal modelling. This guidance should be considered in conjunction with Lloyd's Validation and Model Change guidance.

2 Submission Requirements and Deadlines

2.1 Overview

The LCR captures quantitative information that, alongside the qualitative validation and documentation, allows managing agents to demonstrate that they have systems enabling them to identify, measure, manage and report risk and calculate SCRs.

A full submission is required for all syndicates with a business plan or any open year of account at the time of submission, including those in run-off or underwriting RITC business only. The exception are syndicates where capital is set on the Lloyd's Syndicate Benchmark Model (SBM) (see Section 4.6 of the Lloyd's Capital Guidance). Syndicates planning to close all years of account at the balance sheet date and cease existence do not need to submit an LCR, as long as the receiving syndicate includes any ceded business in its LCR submission (see Section 4.7 of the Lloyd's Capital Guidance). This also holds for syndicates ceding certain years of account or classes – more details are contained in the RITC process guidance (available on request).

The phased approach for business plan and capital submissions will continue for 2022. Each syndicate has been given a specified return submission date based on its capital structure and Lloyd's risk-based approach. Syndicates will follow one of four submission phases, which has been confirmed by the Account Managers. Non-aligned syndicates will submit their plan and capital information in one phase this year. Further details can be found in Market Bulletin Y5337.

The table below provides the requirements for each element of capital reporting. Deadlines are 1pm on the day each item is due. Please note that resubmissions of documents might be required if syndicates do not adhere to the naming conventions. The reason is that Lloyd's relies on automatic downloads from SecureShare for documents for data protection reasons - exceptions in the naming conventions will require manual intervention, which Lloyd's is seeking to minimise. Uploads to SecureShare should go into the Syndicate Capital Setting folder. The "free text" part of the name can be used to differentiate different types or versions of files.

Item	Description	Submission	Deadline	Naming Convention
LCR	Quantitative capital return	All forms complete on MDC	Phased submission deadline	N/A
Methodology document	Qualitative document supporting the LCR submission	Attachment in MDC	Phased submission deadline	Methodology2022_0000_free text (0000 representing the syndicate number)
Analysis of change	Document supporting the LCR submission	Attachment in MDC	Phased submission deadline	AoC2022_0000_free text (0000 representing the syndicate number)
Focus Areas	Spreadsheet return on Lloyds.com	Attachment in MDC	Phased submission deadline except certain questions (1st November 2021 for these)	FocusAreas2022_0000_free text (0000 representing the syndicate number)

Item	Description	Submission	Deadline	Naming Convention
Model Change Template	Spreadsheet return on Lloyds.com	Upload to SecureShare	Phased submission deadline	MCT2022_0000_free text (0000 representing the syndicate number)
Validation	Documentation providing model validation	Upload to SecureShare	One week after LCR deadline	ValidationReport2022_0000_free text (0000 representing the syndicate number)
Validation signposting template – reduced or full version	Spreadsheet return on Lloyds.com	Upload to SecureShare	One week after LCR deadline	ValidationSPost2022_0000_free text (0000 representing the syndicate number)

In certain circumstances, syndicates should fill in the Negative Market Risk Template (available on Lloyds.com), and submit this with their LCR submission as an attachment in MDC. Further details can be found in Section 4.1.6.

In certain circumstances, syndicates should fill in the Sum of Squares Test Template (available on Lloyds.com), and submit this with their LCR submission as an attachment in MDC. Further details can be found in Section 4.1.9.

Information on the documents/returns above can be found in Sections 4.2 and 4.8 of the Lloyd's Capital Guidance. The September/October return should be submitted on the basis of the expected business outcome at 1st January 2022. More information about the basis of reporting of the LCR return can also be found in Section 3.2 of the Lloyd's Capital Guidance. Please note that the validation signposting template has been reduced in scope this year given feedback from the market on the increasing reporting requirements. A full version of the validation signposting template will only be required for syndicates where a detailed validation report review is carried out and these syndicates will be notified by Lloyd's separately.

The final SCR submitted to Lloyd's must be approved by the Board or an appropriately authorised committee depending on the syndicate's governance arrangements, and in line with the Governance Minimum Standard MS4. Board members should ensure they are aware of all issues raised during the review process and recognise that following Lloyd's review of the SCR, loadings might be applied.

2.2 Lloyd's Capital Guidance

In previous years, Lloyd's published updated capital guidance around June/July for the upcoming LCR submissions. In 2021, Lloyd's has decided to give agents more advance notice of any changes to the guidance and sufficient time to plan for any necessary changes to their internal model. Hence the capital guidance will only be issued in Q4 2021 and will then be applicable for the 2023 YOA LCR submissions.

Consequently, the current Lloyd's Capital Guidance for 2021 YOA (issued in June 2020), alongside these 2022 LCR Instructions, are the requirements in force for the 2022 LCR submissions.

The capital guidance included some requirements on concentration risk and the Lloyd's outwards reinsurance team had more detailed guidance available on request over the last year. The detailed guidance can be found in Section 6 and will be added into the next Lloyd's Capital Guidance. Agents can request further details from their Outwards Reinsurance point of contact if syndicates assess that they may have concentration risk as defined by the metrics in Section 6.

2.3 Focus Areas

Lloyd's will continue to use the Focus Areas return to provide advance notice to managing agents of specific areas of review focus. In 2021, Lloyd's will provide each syndicate with an individual Focus Areas file that has been pre-populated with syndicate specific data from previous returns.

Syndicates will also need to download an Excel version of their submitted LCR and link this to their Focus Areas return, as several of the questions in the Focus Areas return rely on latest figures in the LCR. Agents will be able to do this using the “Data – Edit Links” functionality in Excel to ensure that the correct reporting figures in the LCR are pulled through into the Focus Areas return.

The 2022 YOA Focus Areas return requests responses across several areas, including:

- General Queries. Further details on these are covered in Section 0
- COVID-19. Lloyd’s is collecting follow-up information on agents’ ongoing experience and model response to COVID-19, including 2 new questions about possible emerging risks on COVID-19 loss experience. Lloyd’s minimum expectations on the experience on COVID-19 are outlined in Section 5.1.
- Reserving questions. Further details on these are covered in sections 4.2.3 and 4.2.6
- Minimum Tests. The tests are unchanged from the 2021 YOA LCR submissions and are covered in Section 4.1. This year, agents will be required to provide justification for any failed tests within the Focus Areas return that accompanies the LCR submission. These may result in capital loadings if sufficient justification is not provided and the test failures accumulate to material loadings.
- Non-natural catastrophe accumulation risk. Lloyd's has highlighted to agents that there will be enhanced oversight on modelling of non-natural catastrophes, with a thematic review planned by MRC Syndicate Capital in 2022. Ahead of this review, Lloyd's is collecting some high-level information. Further detail on these questions are covered in Section 5.2.

2.4 Foreign Exchange

The LCR must be reported in converted sterling. Submissions made prior to year-end must use the published prior 30 June rates, set out in Market Bulletin Y5342. Submissions made post year-end must use the 31 December rates. As part of the new capital setting process the final agreed SCRs will then be converted to the latest quarter rates for the quarterly corridor tests and June 2022 CIL. This means that the SCR that agents submit in September and their approved SCR in the CPG letter might be different due to the FX conversion. Further details of the corridor test process will be contained in further market bulletins.

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 in the LCR submission must be reported in converted sterling. The syndicate should make clear what currency and units are used in its reporting at any point.

2.5 Analysis of Change

The analysis of change (LCR Form 600 in MDC) remains unchanged this year from the version in the 2021 YOA LCR. Syndicates should ensure that their documentation explains the movement in these figures. Lloyd’s expects syndicates to provide commentary on how the model represents the risk profile, with reference to recent experience and any emerging features of the risk profile. Movements will not be accepted by virtue of being the consequence of input updates and must be analysed in full to ensure they are clearly understood for both one-year and ultimate capital. Further detail can be found in Section 14 of the Lloyd’s Capital Guidance.

2.6 Resubmissions

If an SBF resubmission is required during the review process, the managing agent must assess the capital impact of this change. A resubmission of the LCR return may be required depending on impact, as set out in Section 4.3 of the Lloyd’s Capital Guidance:

- Downwards capital movement:
    - Less than 10%: not required, the managing agent has the option to resubmit an LCR return. Lloyd’s will not adjust capital downwards without a full resubmission.
    - Greater than 10%: Resubmission required.
- Upwards capital movement:
    - Less than 5%: No update required.
    - 5-10%: Managing agents can resubmit, or a high-level adjustment can be applied by Lloyd’s instead.
    - Greater than 10%: Resubmission required.

Please note that Lloyd’s may have to restrict capital resubmissions if the timing of an SBF resubmission does not allow for review of the capital resubmission within the regulatory timeframes. Constraints on resources might mean that agents will have to delay their resubmissions until March 2022. This will be considered on a case by case basis.

3 Lloyd's Review Process

After the LCR return is submitted, the data will be processed and Lloyd's review will commence.

3.1 Syndicate Capital

As a first step, the syndicate capital team will triage syndicates into review categories. Syndicates will either enter the "fast track" route with a light review or be subject to a more detailed review. All review levels will consider:

- Minimum tests mentioned in Section 4.1;
- Responses to the Focus Areas return; and
- Responses to previous loadings and feedback.

Fast Track reviews focus mainly on high-level movements in risk type and risk vs exposure metrics. In general, requests for further information from the syndicate will be limited.

The more detailed reviews focus on understanding the full scale of movements in capital, as well as risk-to-exposure metrics across all risk types and classes. There will usually be requests for further information for these reviews.

Syndicates will qualify for a Fast Track review under either of the following two routes (see Fast Track for 2021 Capital Review Process for details, including definitions of metrics):

3.1.1 Fast Track Route 1: Review undertaken prior to 2022 YOA LCR submission

The syndicate has either undergone a major model change (MMC), a capital deep dive or an Internal Model Approval Process (IMAP) review (from coming off the syndicate benchmark model) in 2021. In addition:

a. Key SCR-to-exposure metrics have not changed materially in the 2022 YOA LCR submission since the MMC application or deep dive; and
b. No significant concerns have been identified during the MMC, deep dive or IMAP review; and
c. The model has been subject to limited further change after the prior MMC, deep dive or IMAP review, i.e. no further MMC application accompanies the LCR submission and any changes that lead to reductions in SCR-to-exposure metrics are clearly related to risk profile changes (and not model methodology or parameterisation changes).

3.1.2 Fast Track Route 2: Metrics for no material change met in 2022 YOA LCR submission

The syndicate qualifies for a light review if it meets ALL of the following criteria:

a. uSCR is below £250m (as per LCR form 309, Table 2, Cell I9); and
b. No significant concerns have been identified by Lloyd's in respect of the internal model; and
c. The model has been subject to limited change, i.e. no MMC application accompanies the LCR submission; and
d. Key SCR-to-exposure metrics have not changed materially since the previous SCR review (September submission or any resubmission if applicable).

For both Fast Track routes, the key SCR-to-exposure metrics will be reviewed with the initial LCR submission and with any subsequent LCR submission such as one triggered by an SBF resubmission. If a syndicate qualified for Fast Track with the initial LCR submission, but the subsequent LCR resubmission led to the key metrics changing materially, the syndicate may be removed from Fast Track review. The exact circumstances of the SBF/LCR resubmission will be considered by Lloyd's when determining whether a syndicate remains on Fast Track, but the starting position in this case is that the syndicate no longer qualifies for Fast Track.

3.2 Initial Completeness Checks

After the triaging process, Lloyd's will carry out initial completeness checks to highlight to the managing agent early on if the submission does not meet Lloyd's requirements. The result of the initial completeness checks will be communicated within 10 working days of the LCR submission. It will cover:

- Any missing documents from the submission against the list above in Section 2.1.

- Data inconsistencies between returns, for example the consistency of risk margin and RICB between LCR and QSR, as well as the consistency of premium, claims and profit between LCR and SBF.
- Request of the negative market risk template if applicable.
- Agents will also be informed if their submission will be fast tracked or otherwise.

3.3 Co-ordination with other teams

The capital review process involves a number of different teams in Lloyd's. The overall review is conducted by the Syndicate Capital team with input from other teams such as Treasury, Exposure Management and Outwards Reinsurance. However:

- Loadings regarding the prospective loss ratios, the technical provisions roll forward process and mean best estimate reserve loadings are proposed by the Syndicate Reserving team.
- Loadings regarding the Catastrophe Risk Appetite, model completeness and other catastrophe risk related loadings are proposed by the Exposure Management team.

Questions regarding these loadings should be directed to your Syndicate Reserving / Exposure Management point of contact respectively. Account Managers can provide additional information on the process.

The Exposure Management review process involves reviewing the LCR/ECA along with the Syndicate Business Forecast and natural catastrophe risk (LCM) forecast returns. The LCM forecast returns include simulations for the following year's catastrophe losses, a sensitivity test to calculate the impact on SCR of an increase in catastrophe risk and a bridging analysis of the catastrophe losses provided to Exposure Management and those recorded in LCR Form 313. Further details on these returns will be released in July. The Exposure Management process will also take into account the outcome of their review of syndicates' Model Completeness Questionnaires.

3.3.1 Syndicate Reserving

The Syndicate Reserving team review the following, with further detail provided in Section 4.2:

- Earned margin
- Profit from unearned premium
- Model loss ratio assumptions
- Model opening reserves (balance sheet projection)
- Best estimate reserves

Lloyd's has elected to use a risk-based oversight approach to the Model Loss Ratio test for the 2022 process. This will introduce an initial and final triage process, with syndicates' review levels categorised as either light, detailed or detailed plus.

For the initial triage, prior to the 2022 SBF and LCR submission, Lloyd's will provide summary files showing the Model Loss Ratio Test being undertaken by Lloyd's. These are based on the 2021 plan and LCR submission but include the actual information from the TPD as at year-end 2020, as such any loadings shown are indicative.

Between June and August, Lloyd's will engage agents based on their initial triage to assign review levels (light, detailed, or detailed plus). Each review level has its own requirements. The expectation is that, prior to commencement of CPG, all light and detailed plus reviews will be concluded based on the initial triage. Detailed review syndicates may require additional time and will be prioritised based on their CPG phase. The final triage will determine the actual outcome for a Syndicate for the Model Loss Ratio test and will be based on the 2022 plan and LCR submission from September during the CPG process.

Lloyd's has provided an updated template for the Model Opening Reserves test, to be submitted to Lloyd's prior to the 2022 SBF and LCR submission. Lloyd's asks managing agents with specific feedback or loadings in the previous CPG season to fill out the template and submit to Lloyd's for review.

During CPG reviews, Lloyd's will update the Model Loss Ratio test with the submitted 2022 LCR and SBF to show the indicative loading with current data and provide this to managing agents. Again, managing agents will have the opportunity to provide evidence to support a reduction in loading. Lloyd's expects minimal additional loadings to be required at this point, given the engagement and review anticipated from June to August on this test. Lloyd's will prioritise syndicates during the pre-CPG season based on their CPG phase.

In order to make tests as transparent as possible, Lloyd's provides details of how the tests work, including a simplified summary file demonstrating calculations using dummy data for the Model Loss Ratio test, and a file showing the loading calculation for the Model Opening Reserves test.

The best estimate reserve reviews are specific to the deficiency that has been highlighted and that needs resolution. Lloyd's will engage with the reserving team at the syndicate for queries / meetings and provide timely feedback and raise any additional queries. Where there appears to be deficiencies in the process or the reserves underpinning the model opening reserves, a loading may be proposed.

Additionally, there is a greater focus this year on the performance of the current underwriting year. Where there is a material deviation in the actual experience compared to the modelled loss ratio, this will receive greater oversight from Lloyd's and may result in a retrospective adjustment to capital (either an increase or a decrease). Further details of this process will be provided in due course.

3.4 Communication of loadings

All loading proposals applied by Syndicate Capital / Syndicate Reserving follow the process outlined below, except where loads are below a minimum materiality threshold, as outlined in section 3.5.

The reviewer might ask clarifying questions throughout the review, although these will be kept to a minimum due to the short turnaround time. Results of the review will be presented to and discussed at the Capital Technical Review Group (CTRG) and at the Reserving Technical Review Group (RTRG). Any proposed loadings will be sent to the Capital/Reserving team at the syndicate. Account Managers will also communicate potential loadings to the executive of the syndicate. When communicating loads to syndicates, Lloyd's will advise:

- The amount of the loading to the ultimate and one-year SCRs
- The area of the model to which the loadings are applied
- A description of the loading and how it has been derived; and
- What is needed from syndicates in order to address the potential loadings.

Loadings are of an indicative nature and are designed to address the uncertainty surrounding the capital numbers if certain questions cannot be resolved satisfactorily. Lloyd's will communicate the proposed measures to address the loadings and there are areas where Lloyd's expects that syndicates could address the uncertainty in the timescales provided.

Responses by syndicates will be reviewed and a recommendation regarding the syndicate's capital will then be presented to the Capital Planning Group (CPG). CPG's decision will be communicated by Account Managers verbally and followed up with a letter shortly after the CPG meeting. CPG decisions can be appealed; syndicates should contact their Account Managers regarding procedures.

More detailed feedback will be sent to capital contacts by the Syndicate Capital team and the reserving contacts by the Syndicate Reserving team. This will include detailed information about loadings, how these can be addressed, and timeframes. Feedback will be sent out by 19th November 2021 at the latest. Feedback will also include any changes to the status of the minimum standard ratings.

Please note that the above process largely follows the review process established over the last two years. However one notable change this year is that the Focus Areas return has been updated to highlight any failed minimum tests at the time of LCR submission; this is the opportunity for agents to provide justification for failed minimum tests. Syndicates will not receive a further opportunity to address any loadings associated with failed minimum tests.

3.5 Minimum loading materiality

In line with Lloyd's move towards a principles-based approach, a minimum threshold will be applied to the aggregate capital loading for a syndicate. Total loadings below the minimum threshold will be waived. The minimum threshold is set at 5% of the syndicate's submitted ultimate SCR as default – it is subject to review on a case by case basis.

Some loadings are exempt from this minimum threshold – i.e. they will be applied at any level. These loads are:

- Catastrophe Risk Appetite (CRA) loadings applied by Exposure Management. These are covered in section 4.3.1.
- Thematic loads. Presently, this includes:

a. Non-modelled natural catastrophe / Model Completeness loadings. These are covered in section 4.3.2.
b. Q1 2022 reserving model loss ratio loadings that may be applied for performance below plan over 2021.
c. Any other thematic loads will be communicated to syndicates; at time of these Instructions' publication the only thematic loads are listed above.

Waived loadings will be communicated to the syndicate as part of the capital feedback at the end of the CPG process and feedback provided on the areas where loads were waived. Waived loadings will be taken into account in March when the SCR reassessments are due. Large syndicates (with a uSCR over £250m) will be contacted if their waived loadings and SCR movement in aggregate exceeds +10%. The syndicate will then be asked to either provide information that addresses the loading or to resubmit their LCR in March. This is restricted to large syndicates and enables Lloyd's to manage the risk of significant market movements in capital. Waived TP roll forward loads will not be taken into account in March, as these will become irrelevant for year-end reassessments. Agents are also required to continually monitor their capital requirements throughout the year and notify Lloyd's when SCR moves by more than 10%; the calculation of movement in capital should include waived loadings for syndicates with a uSCR over £250m.

Where further information has not been requested for waived loadings, Lloyd's expects that agents will address Lloyd's feedback on waived loadings with the next LCR submission, either through appropriate model adjustments or by providing information that addresses the loading.

Here are three examples of how the minimum threshold will work in practice:

Example 1: For a syndicate with a uSCR over £250m a potential 3% load to uSCR is identified. No other loads identified. Lloyd's chooses to waive the load and no loads are communicated to the syndicate during the review. The syndicate is notified of the waived load after CPG approval. Syndicates may provide further information to MRC Syndicate Capital ahead of March resubmission to address the area of concern identified, if their adjusted uSCR movement exceeds 7%. If information is considered sufficient to address the area of concern, feedback will be reissued. If that is not the case and the March reassessment template shows a uSCR movement of over +7% the syndicate will have to resubmit their LCR in March.

Example 2: Syndicate Capital identify a potential load to uSCR, and Syndicate Reserving identify an additional potential load to uSCR. The total of the two loads is greater than the minimum threshold, and therefore the loadings are both pursued and are communicated to the syndicate in accordance with Section 3.4.

Example 3: Syndicate Reserving identify a potential Model Loss ratio assumptions load to uSCR which is below the minimum threshold. The syndicate is also subject to a CRA load. As the syndicate reserving load is below the minimum threshold, Syndicate reserving will waive the load but the CRA load is still applied regardless of its size, as CRA loads are not additive with other loadings. The same process as per Example 1 holds.

4 Lloyd's Model Tests

Lloyd's will run a number of minimum tests which flag areas to question with the syndicate. If any of the tests are failed, Lloyd's expects to see robust justification to support the model output. Loadings will be applied if the justification is deemed insufficient. Please note that passing the minimum test does not necessarily mean that Lloyd's has no further questions on the area in question, as these only constitute a baseline. Some tests are relatively simple automated tests that will be run as a matter of course – other tests like the Model Loss Ratio tests have been agreed on with the market in advance of the submissions.

4.1 Syndicate Capital Model Tests

As noted in Section 2.3, these tests will be flagged in the 2022 Focus Areas return. Justification for failed minimum tests must be provided together with the Focus Areas return. Syndicates will not receive a further opportunity to address any loadings associated with failed minimum tests.

4.1.1 Insurance Risk – Modelled Class Volatility

Net loss ratios should be greater than 100% for the standalone premium risk for each modelled class of business at the 99.5th percentile, i.e. each class should make a loss at a 1 in 200 return period.

This test checks that the 99.5th Net Claim percentile for Premium Risk including Catastrophes is greater than the Net Premium, for each modelled class. These correspond to LCR form 502 Q1 Col I and LCR form 502 Q1 Col A. The ratio is also automatically calculated in LCR form 503 Q1 99.5th ULR including Catastrophes, and it must be greater than 100%.

4.1.2 Diversification – within Premium Risk

Contributions from premium risk by modelled class of business to the 99.5th percentile of premium risk should be greater than the mean for the class. This test is designed to ensure that a minimum level of correlation is applied between all classes for premium risk.

This test checks that the 99.5th Post Diversified claims for Premium Risk including Catastrophes is greater than the Mean Net claims for each modelled class. These correspond to LCR form 502 Q1 Col I(i) and LCR form 502 Q1 Col B. The ratio is also automatically calculated in LCR form 503 Q2 Post diversified claims, and it must be greater than 100%.

Managing agents should note that while the minimum test is applied to Premium risk including Catastrophes (LCR forms 502 and 503), the same minimum criteria apply for the Premium risk excluding Catastrophes (LCR forms 500 and 501).

Of course, this test does not directly check the level of correlations applied. Lloyd's might use other information (e.g. the output correlations between classes supplied in the IMO returns) to check correlation levels. Syndicates should be prepared to provide the minimum modelled level of correlation between classes and years (output and input) to Lloyd's on request.

4.1.3 Diversification – within Reserve Risk

Contributions from reserve risk by modelled class of business to the 99.5th percentile of reserve risk should be greater than the mean for the class. This test is designed to ensure that a minimum level of correlation is applied between all classes for reserve risk.

This test checks that the 99.5th Post Diversified claims for Reserve Risk is greater than the Mean Net claims for each modelled class. These correspond to LCR form 510 Q1 Col F(i) and LCR form 510 Q1 Col A. The ratio is also automatically calculated in LCR form 511 Q2 Post diversified claims, and it must be greater than 100%.

Of course, this test does not directly check the level of correlations applied. Lloyd's might use other information (e.g. the output correlations between classes supplied in the IMO returns) to check correlation levels. Syndicates should be prepared to provide the minimum modelled level of correlation between classes and years (output and input) to Lloyd's on request.

4.1.4 Impact of Reinsurance

The level of reinsurance credit risk modelled should be considered in the context of the materiality of reinsurance to the SCR. The relatively binary nature of reinsurance default means that this risk can appear low (especially on a one-year basis) and/or well diversified. It is expected that any limitations associated with modelling this risk (e.g. including exhaustion) are clearly understood and quantified and stress/scenario tests are used to validate the level of risk.

The test checks that the movement in the benefit from reinsurance reported in LCR form 530 Q2 Row 3 is consistent with the movement in contribution to capital from credit risk (LCR form 309, Table2, G5).

4.1.5 RI Credit Risk – Loss Given Default

Lloyd's expects managing agents to apply a loss given default probability of at least 50%. This is in line with the standard formula. However, when assigning the loss given default ratios, Lloyd's expects syndicates to also consider:

- Positive and negative risk features of the syndicate's reinsurers (e.g. financial strength rating, current aged debts or regulatory action)
- Positive and negative risk features of the syndicate's reinsurance contracts (e.g. contract clarity, current disagreements or disputes)
- The probability that loss given default ratios would increase under stressed scenarios, including with the scale of the unpaid recovery.

It should be noted that the loss given default probability should be applied to the unpaid recovery at the point of default. Collateral can be taken into account, but only if the collateral has not already been used as a positive risk offset when considering default/impairment probabilities. Syndicates must be able to justify the assumptions in this area, in particular when the 50% loss given default probability is lowered for some simulations, noting the lack of data in this area.

The minimum test applied by Lloyd's checks that the ratio of the 99.5th RI Credit Risk loss on RI Recovery (LCR form 530 Q1 F1) over the 99.5th RI Recovery (Gross) from defaulting counterparties (LCR form 530 Q1 F3) is greater than 50%. The ratio is also automatically calculated in LCR form 531 Q1 99.5th RI credit risk loss vs. RI recovery (Gross) - defaulting counterparties.

For the 2022 YOA LCR submission, the instructions for reporting figures for line 3 in LCR form 530 Q1 will be updated to state "The modelled ultimate reinsurance recovery at the indicated mean/percentile of reinsurance credit risk loss, gross of the reinsurance credit loss (defaulting counterparties only) *including only those gross recoveries expected from defaulting reinsurers on or after the time they are simulated to default*".

4.1.6 Negative Market Risk Contribution to Capital

In general, additional risk should add additional capital to the SCR. However, in the case of market risk, the contribution to capital might be negative (i.e. market risk reduces capital) under limited circumstances. This requires investment returns to outweigh the risk from liquidity, FX and credit risk. Lloyd's does not expect a negative contribution from market risk on an ultimate basis. On a one-year basis, the impact of the unwind of discount credit is accepted as part of the reason for a negative contribution from one-year market risk.

If a syndicate has a negative contribution from market risk to the SCR on an ultimate basis, or on a one-year basis where the contribution is larger (on an absolute basis) than the benefit from discounting, syndicates are asked to fill in the Negative Market Risk Template (available on Lloyds.com) and submit this with their LCR submission as an attachment in MDC. The template contains questions to ensure that the syndicate is modelling market risk appropriately and in line with the guidance. If this template is not filled in, or is not answered satisfactorily, then a loading at least equal to the negative contribution of market risk for ultimate SCR will be applied. For the one-year SCR, market risk will be loaded as a minimum to the level of the negative contribution from all but interest rate risk on liabilities (if this data is provided by the syndicate, if the table is filled in as expected, and if the minimum requirements are met), as the benefit from discounting is allowable on the one-year SCR.

If the questions in the additional template are answered satisfactorily, then the loading will be adjusted to reflect the acceptable items, or no loading will be applied.

The Negative Market Risk Template collects the following:

- A more detailed split of interest rate risk into assets and liabilities in order to split out the impact of discounting to the contribution of market risk to capital.
- Mean investment return as a proportion of available assets: Investment returns have been identified as the main driver of the negative contribution – hence justification will be required of the mean investment return, ensuring that this is appropriate by asset class and for the time horizon modelled.
- Mean FX risk: Lloyd's will not allow any material FX profits at the mean (i.e. larger than £1m).
- Justification of the approach taken to modelling the insurance vs market risk dependency: Profitable scenarios from market risk in the tail will depend on the strength of the dependency modelled. The minimum requirement here is for the internal model to include an inflation risk driver to capture the relationship between insurance risk and market risk for financial classes in particular. If insurance losses are linked to the simulated inflation series from an ESG, then an inflation risk driver is considered to be modelled. In this case, the managing agent should assess whether this link sufficiently captures the actual strength of the relationship, especially in the tail, and if not, consider including an additional risk driver. If no inflation risk driver is currently modelled, then the managing agent should assess the materiality of this relationship and either implement an inflation risk driver in the internal model, or submit sufficient justification and evidence to Lloyd's to explain why an inflation risk driver has not been modelled. If syndicates only have an inflation driver in the model and no explicit dependency between market and insurance risk, they are required to show that the backtesting of premium and market risk in conjunction as carried out in the Focus Areas return as described below does not indicate additional correlation between insurance and market risk losses. Syndicates should include any evidence of their insurance vs market risk dependency being sufficient in their validation report.
- Affirmation of the consistency of discount rates for technical provisions: Inconsistency between discount rates used in the model could lead to a "risk-free lunch" which will be disallowed.
- Affirmation that the investment return and market risk on FAL/FIS are outside the scope of syndicate level SCR as excess assets in the model could lower the contribution of market risk.
- Affirmation that liquidity risk is modelled in line with the guidance or evidence that this is immaterial.

Negative market risk contribution to capital on an ultimate basis (and larger than the profit from discounting on the one-year basis) was very rare in submissions last year and given current economic conditions, Lloyd's expects that this remains a low likelihood for most submissions.

4.1.7 Foreign Exchange Risk Mean Profit

Lloyd's will only allow a maximum profit of £1m on Mean FX risk regardless of the contribution from Market risk. This rule will apply to all syndicates, including those with positive Market risk contributions to Ultimate and One-Year SCR.

This test will simply check that the FX Risk mean (LCR form 314 Table 2 D5) is greater than -£1m. If the syndicate capital level is such that £1m is material to the result, agents should take appropriate action to minimise this profit.

4.1.8 Contributions to Capital

Contributions to capital from all risk types should be positive (except for market risk under certain circumstances as discussed above).

This test simply checks that post-diversified capital contributions from all risk types (LCR form 309 Table 2 Col E & I) are positive.

4.1.9 Diversification: The Sum of Squares Test (SST)

It is well understood that the level of dependencies included in syndicates' internal models is a material driver of capital, both on an ultimate and one-year basis.

There are many methods of introducing dependencies between classes of business and risk categories, e.g. copulas, common drivers, tail drivers. Lloyd's does not prescribe the use of any particular dependency structure and considers the individual dependency structure used in an internal model in the SCR review. However, Lloyd's does require consideration to be made of the potential for dependency effects to be greater within the tail of distributions than in the body. The impact of any tail drivers on capital should be considered as part of representing their appropriateness, rather than relying solely on their presence in the modelling.

The unique and complex nature of many dependency structures means that it is often difficult to consistently assess from a bottom-up analysis whether any particular approach is appropriate. As a result, Lloyd's also examines the output of internal models to ensure that sufficient dependency has been introduced.

A working group of Lloyd's and market representatives concluded in 2019 that the Sum of Squares Test is a useful high-level indicator, but further information can be considered if it indicates an issue with diversification.

There are 5 areas where the SST is applied by Lloyd's:

i) Overall ultimate SCR: The modelled SCR adjusted 99.5th percentile must be greater than the SST SCR adjusted 99.5th percentile (both in LCR form 521 Q6).

ii) Insurance Risk including Catastrophes: The modelled Insurance risk adjusted 99.5th percentile must be greater than the SST Insurance risk adjusted 99.5th percentile (both in LCR form 521 Q5).

iii) Insurance Risk excluding Catastrophes: The modelled Insurance risk excluding catastrophes adjusted 99.5^{th} percentile must be greater than the SST Insurance risk excluding catastrophes adjusted 99.5^{th} percentile (both in LCR form 521 Q7).

iv) Premium Risk excluding Catastrophes: The modelled Total Net claims 99.5th percentile (LCR form 500 Q1 Col I Total) must be greater than the SST Total Net claims 99.5th percentile (LCR form 501 Q3 99.5th Net Claim percentile Total Claims SST).

v) Reserve Risk: The modelled Total Net claims 99.5th percentile (LCR form 510 Q1 Col F Total) must be greater than the SST Total Net claims 99.5th percentile (LCR form 511 Q2 99.5th Net Claim percentile Total Claims SST).

The Sum of Squares Test Template focuses on the first three of these tests (on a one-year basis and an ultimate basis). It requests high-level model output to determine a pass/fail at a total level, and requests additional information that is required to assess the appropriateness of the dependency structure if the test was failed. Where tests i), ii), or iii) fail, agents are asked to fill in the Sum of Squares Test Template (available on Lloyds.com) and submit this with their LCR submission as an attachment in MDC. For failures in test iv) and v) the focus area return requests more information on the dependencies within premium risk and/or reserve risk in order to show that a minimum dependency exists between classes and years.

The additional evidence consists of:

- The use of randomised simulations for premium, reserving and insurance risk in order to assess model output against "true" independence ("scrambled sims")
- Spearman's rank correlation of model output
- Using an alternative measure, the APC (Average Percentile Contribution), on both randomised and modelled sims to assess contributions to the tail

Average Percentile Contribution examines Premium/Reserve risk contributions in the 99.5th percentile tail of insurance risk and expresses these as a percentile of the standalone Premium/Reserve risk distribution. Randomised simulations are required to provide a baseline to measure dependency.

The additional evidence will be collected on a one-year basis and an ultimate basis. For the aggregation of Premium Risk and Reserve Risk to Insurance Risk, it will also be collected net and gross of reinsurance, including and excluding catastrophes.

The above will allow Lloyd's to assess dependency within internal models using different metrics against truly independent distributions. However, Lloyd's considers this level of dependency to be an absolute minimum rather than a test of adequacy.

4.2 Syndicate Reserving Model Tests

4.2.1 Earned Margin

If the earned margin being claimed in the QSR submission is greater than that calculated by the Signing Actuary as part of the year-end SAO, the Reserve Risk within the LCR submission may be understated. If this cannot be adequately explained, the QSR is expected to be re-submitted to correct for any shortfall. Where a loading is required within the QSR / ASR for the earned margin or unearned profit consideration of additional loadings in the SCR should be made, for example additional reserve risk on any earned margin loading. Further guidance on this is available as part of the QSR submission and review process.

4.2.2 Profit from Unearned Premium

If the associated profit from unearned premium (as derived from the loss ratio on unearned premium) being claimed within the QSR submission is greater than that calculated by the Signing Actuary as part of the year-end SAO, the Premium Risk within the LCR submission may be understated If this cannot be adequately explained, the QSR is expected to be re-submitted to correct for any shortfall. Further guidance on this is available as part of the QSR submission and review process.

4.2.3 Model Loss Ratios

In line with previous SCR guidance, assumptions used for the model should be on a Solvency II best estimate basis. The basis of loss ratio assumptions for the LCR is required to be a best estimate, based on realistic and appropriate assumptions. As highlighted in the PRA's Supervisory Statement (SS5/14), this is not expected to incorporate improvements in performance unless the measures taken have been shown to be effective. Lloyd's considers that only agents with a consistent track record of performing to plan can justify the use of SBF assumptions for capital setting purposes, as Lloyd's has observed adverse performance compared to plan in the market's actual experience. This adverse performance against plan is most evident in recent years and is still apparent when large, isolated events that are difficult to plan for are excluded. Where there is a difference in view at a class of business level between the SBF and for capital setting, Lloyd's would expect the managing agent to support the view taken.

Individual syndicates are required to assess the appropriateness of the internal model assumptions, including the realism and appropriateness of prospective year loss ratios. Lloyd's Syndicate Reserving team issues syndicate specific data to the market comparing the syndicate's planned vs actual loss ratios over a recent 6-year period (defined for 2022 SCR to be 2014 to 2019 YOA). Event-driven classes and any years of account whose deviance to plan is greater than a set threshold, based on the average deviance to plan for that class over the 6-year period, are excluded from the calculation. Applying these exclusions acknowledges the impact of catastrophes and other outliers that are difficult to plan for. Based on the historical difference between loss ratios and after applying these exclusions, an "adjusted ULR" will be calculated for each Lloyd's Generic Class. The proposed mix of Lloyd's Generic Classes within the 2022 SBF is then used to aggregate these adjusted ULRs to obtain a whole account adjusted ULR. As part of the calculation, the difference between the plan and modelled ULR in the LCR submission is considered to act as a self-load and is used to offset any difference between the whole account adjusted ULR and the 2022 SBF whole account ULR. If the whole account is found to be adverse against plan and outside of the tolerances set for this test after allowing for the self-load, a secondary loading calculation will be triggered to determine the actual loading, which is outlined below.

The actual loading is calculated slightly differently and repeats the adjusted ULR calculation, but in this instance using only the historically adverse classes. Any historically favourable classes will use their SBF plan loss ratio when aggregating up to a whole account level. This revised adjusted ULR to SBF difference will allow similarly for the self-load between plan and modelled ULR. The potential loading is made up of two parts:

1) The mean claims element, which is calculated as the residual difference multiplied by the prospective year's net premium from the 2022 SBF.
2) The stress loading, which is calculated as 4 times the CoV of the additional mean claims amount. The whole account CoV figure is taken from the corresponding LCR submission.

The stress loading factor of 4 reflects the fact that the claims distribution is positively skewed. It has been calibrated considering market level data and through the testing of alternative assumptions (e.g. using assumed distributions and compared to diversified premium risk). The mean claims amount and the implied stress loading are calculated on both a gross basis (netted down for reinsurance) and directly on a net basis with the larger of two loadings selected for the final loading.

For the 2022 YOA LCR reviews, there is clarification from Lloyd's that there is an expectation that the gross prospective loss ratio for capital setting should not be below the gross SBF loss ratio by class of business. This is tested in the Focus Areas return, and agents are required to provide robust justification on any class where this test is failed, or a loading will be applied.

For the 2022 process, review categories have been introduced to reflect the level of risk to Lloyd's based on set criteria in relation to failure of the test and materiality of formulaic loading. The review categories are: light, detailed and detailed plus.

Light reviews will consist of a qualitative process review by standardised pro-forma return to Lloyd's.

Detailed reviews will consist of quantitative evidence-based review, this is largely the same as the 2021 process. However, this year Lloyd’s has classed these adjustments into standard and non-standard, the requirements of each differ with further details supplied in the link below.

Detailed plus reviews will consist of both a qualitative and quantitative review focused on parametrisation of prospective year modelled loss ratios for classes with historical adverse performance to plan.

Further details on the 2022 process are provided in the following document on Lloyds.com.

Finally, there is a greater focus this year of the performance of the current underwriting year and the appropriateness of the capital as submitted. Where there is a material deviation of the actual experience compared to the modelled loss ratio this will receive greater oversight from Lloyd's and may result in a retrospective adjustment to capital (an increase or a decrease). Further details of this process will be provided in due course.

4.2.4 Model Opening Reserves

As part of the 2022 SCR, Lloyd’s will be asking a subsection of the market to fill in the roll-forward template for their syndicate for the last 3 roll-forward exercises (similar to the 2021 process). Lloyd’s will determine the syndicates to be included within the sample set using selection criteria that reflects the risk a syndicate poses to Lloyd’s.

Lloyd’s expects that managing agents will have robust processes in place for performing the roll-forward of their latest audited technical provisions data when obtaining the T0 balance sheet. In particular, managing agents are expected to consider the Actual vs Expected balance sheet positions and to correct their methodology where systematic under-/over-statement is identified, particularly where this is found to be material. If methodology changes are being made to the roll-forward process, the managing agent is expected to clearly highlight the changes made within their modelling documentation submitted to Lloyd’s. The managing agent is also expected to back-test (reforecast) any changes in methodology against the last 3 years of historical QSR returns to evidence the process improvements being made. The “impact” column within the roll-forward template gives managing agents the opportunity to explain any gaps in historical Actual vs Expected that they believe should be credited as part of the test. These will be reviewed on a case-by-case basis by the Syndicate Reserving team.

Any remaining under-statement that falls outside of the thresholds set for this test will be loaded to avoid understating the LCR. The percentage load is calculated using the average residual for the last 3 roll-forward exercises.

Syndicates are expected to provide the validation conducted on the opening balance sheet at an overall level as well as on the following component parts: reserves, future premiums and expenses. The objective in this case is to provide a summary of the analysis undertaken/testing performed to ensure appropriateness of opening balance sheet e.g. back testing - actual versus expected opening balance sheet of historical years overall balance sheet (or by component part). The validator should consider whether the approach used to roll forward the balance sheet to the year end is reasonable and where a change in approach has been taken consider the appropriateness of that change.

Additionally, this year syndicates materially impacted by COVID-19 will be asked to respond on how they made appropriate allowances for COVID-19 as part of their roll forward technical provisions. This will be a qualitative review and is outside of scope of the technical provisions loading calculation as stated above. Any deemed deficiency upon qualitative review could be subject to either further follow up work with the Syndicate or an operational load.

4.2.5 Best Estimate Reserve Reviews

The best estimate reserving process of syndicates is reviewed by the Lloyd’s Syndicate Reserving team throughout the year based on various metrics/KPIs used by Lloyd’s to monitor the market. The broad structure of these reviews will follow MRC’s “Reserving Framework” to ascertain the view of the perceived risk level for each Syndicate.

Any potential loads will be driven by data but place some reliance on the expertise and judgement within MRC. Where judged to be necessary, loadings will be recommended to the Lloyd’s Capital Planning Group (CPG).

4.2.6 Differences in reserves between Signing Actuary and Syndicate view

For the 2022 YOA LCR submission, Lloyd's Syndicate Reserving team has introduced a new focus area to consider, where there is a material difference between Signing Actuary and syndicate reserves on longer-tailed lines of business as at the Q4 2020 SAO. The Lloyd's Syndicate Reserving team will contact any syndicates that have been identified under this area and request a sensitivity test to be run for the 2022 LCR submission, the results of which are reported in the Focus Areas return. With the information provided we will look to understand the impact to ultimate SCR using the Signing Actuary's view of longer-tailed lines of business instead of the syndicate's view. Syndicates that are requested to run this sensitivity should comment on their approach for the sensitivity test in their response to the Lloyd's Syndicate Reserving team.

4.3 Exposure Management Model Tests

There are four principle types of Exposure Management-related capital loadings:

- Catastrophe Risk Appetite (CRA)
- Model Completeness
- Internal Model sensitivity
- Franchise Guidelines

4.3.1 Catastrophe Risk Appetite (CRA)

The CRA is defined as the ratio of the LCM5 1:200 Aggregate Exceedance Probability (AEP) Final Net Loss (FNL) to ECA plus profit. Any increase in the LCM5 1:200 AEP FNL will need to be at a maximum ratio agreed by Lloyd's, where this is not met, Lloyd's Exposure Management will recommend a loading in order to achieve the required ratio.

4.3.2 Model Completeness

For 2022, Lloyd's Exposure Management issued an updated Model Completeness Questionnaire, covering all potentially non-modelled sources of loss related to the LCM5 perils. This return will be evaluated by Exposure Management over the summer, working with syndicates to explore any areas of uncertainty, and any material deficiencies may result in a capital loading in line with the guidance issued on 19th April.

Please note that syndicates are required to ensure that the addition of previously non-modelled risks is additive to capital, in line with the general principle that additional risk adds to capital.

4.3.3 Internal Model sensitivity

Syndicates submit a Sensitivity Test to Lloyd's Exposure Management that assesses the impact of parameter error on the SCR. Any unusually high result will be reviewed in depth and the syndicate may attract a capital loading in extreme or unexplained cases.

4.3.4 Franchise Guidelines

Within SBF Form 452, syndicates provide projections for future Realistic Disaster Scenarios (RDSs) and AEP 1-in-30s. These are compared against ECA plus profit, and the result must fall within Franchise Guidelines (these are outlined in the guidance found here). A request to exceed Franchise Guidelines, i.e. a request for dispensation, may result in a capital loading if that request is not agreed by CPG.

5 Focus Areas

5.1 COVID-19 Impact

The COVID-19 pandemic has caused major losses, as well as uncertainty about future outcomes. Lloyd's requires syndicates to ensure that their models reflect this experience and uncertainty appropriately – as for any other event.

The 2021 Focus Areas return and 2021 SCR Instructions set out certain topics that Lloyd's focused on in the review of capital with regard to COVID-19. These topics are still relevant for agents to consider, although as much of the COVID-19 experience has now been earned, losses are paid (and will be projected to be further paid for the model starting position), underwriting changes have been made in response to experience, and there is an additional year of experience and understanding of the impacts from COVID-19, many of the topics will be less material to syndicates. One possible exception is the potential for the scale of reinsurance recoveries to vary against current estimates. Agents are expected to consider and explain the material areas of uncertainty resulting from the COVID-19 pandemic that are applicable for their 2022 YOA LCR submission, including any emerging risks.

As a starting point, agents are required to update their backtesting of the COVID-19 experience against the model, to establish and demonstrate if experience is adequately captured.

The Focus Areas return prescribes several market-wide backtests with the intention of achieving consistency across the market – however, capital modelling teams and validators should not necessarily restrict their work to the backtests requested. Other scenarios/bases might be considered more appropriate for the specific risk profile and setup of the business. It is the responsibility of the syndicate to ensure that the experience is reflected appropriately – hence it is important to carefully assess which type/basis of backtest is the most suitable test to establish this.

As well as the direct loss experience, and the uncertainty of further COVID-19 related losses occurring in 2021 and 2022, syndicates must ensure that their capital reflects the uncertainty of secondary impacts. For example, further adverse claims experience may be caused by the pandemic, and lockdown-related losses are more likely next year compared to previous years. Capital adjustments must be made for the stressed state of the syndicate and the industry – whether those adjustments take place within or outside of the model. Syndicates might also find that the uncertainty of 2022 premium volumes remains higher than in past years, or that the likelihood of a recession has increased in comparison to other years, potentially resulting in higher expected loss ratios for certain classes and greater uncertainty regarding these and potentially higher credit and liquidity risks. Moreover, syndicates might be at risk of higher than usual severity for catastrophe losses or at risk of higher than usual operational losses due to potential future lockdowns. This list of potential risks is not exhaustive, and each syndicate is required to consider the factors in the external environment impacting its own specific risk profile, as well as the likelihood of these impacts occurring.

Some changes made to syndicates' 2021 models were expected to be temporary adjustments that would be reversed in the longer term. Lloyd's is collecting an update on the changes previously made to syndicates' 2021 models, including whether temporary adjustments have been reverted. Where changes are made, the syndicate should clearly justify why it considers the reversal of previous changes appropriate. The changes are being collected based on the impact on the 2021 model to track the movement of COVID-19 impacts on syndicates' models consistently across the market and enable comparison with figures reported to Lloyd's from last year's Focus Areas return.

The following sets out the minimum requirements with regards to the questions in the Focus Areas return. In all areas syndicates are expected to take an approach that is proportionate in the context of their risk profile and be able to justify their approach. If the justification is not clear and robust, a loading may be applied to allow for the area of uncertainty.

5.1.1 Probable Maximum Loss

Lloyd's requires agents to carry out stress and scenario testing regarding the key uncertainties of the current circumstances, tailored to their own risk profile. The template collects best estimate values and a probable maximum loss value – which refers to a plausible worst-case scenario. The syndicate should define appropriate circumstances for this scenario which may include uncertainty in legal outcomes, changes to political positions, the possibility of further lockdowns, and variants/mutations of the virus. The return period of such a scenario should be tested against the relevant risk categories of the model. In general, the plausible worst-case scenarios defined by agents last year did not go far enough – for example, only a limited number of agents assumed a second wave of lockdowns or mutations of the virus. We expect agents to analyse what could go wrong at this point in time in terms of their ultimate COVID-19 related losses, e.g. in relation to further lockdowns. This scenario is to be compared against the syndicates' 2021 and 2022 models, and agents should explain differences in the assessments given that events have moved on and be able to justify why the return period is considered appropriate, particularly for the 2022 model.

5.1.2 Aggregation and multiple limits

The legal environment surrounding COVID-19 related claims continues to evolve across jurisdictions, and agents should factor this into their modelling considerations and allow sufficiently for any uncertainty. For example, the possibility of COVID-19 being interpreted as a single event or multiple events and the effect this will have on aggregation of claims, limits applied and reinsurance recoveries. The FCA test case on business interruption claims in the UK is another example of legal decisions resulting in unexpected losses in the industry, however this scenario should have been allowed for in agents' prior capital submissions.

Where relevant, agents should consider various scenarios including the likelihood and severity of each scenario, and demonstrate that their model adequately allows for losses under these scenarios.

5.1.3 Reinsurance disagreement & dispute

Due to the material nature of COVID-19 losses, there will be increased focus on contractual terms of coverage, including syndicates' own reinsurance coverage, and there may be increased potential for reinsurance to not respond as syndicates may expect. There may be disagreements and disputes about coverage and/or delays in recoveries that could arise due to multiple reasons. Agents are expected to have considered the increased potential for reinsurance disputes, delays and reductions in estimated recoveries when assessing their 2022 capital requirements and to have made appropriate adjustments in the model. Where agents have assessed that changes are required, the impact on capital should be noted in the Focus Areas return, and the rationale for the change and justification for the capital impact should be described.

Reinsurance dispute risk should be reported within credit risk, as specified in the Lloyd's Capital Guidance.

5.2 Non-Natural Catastrophe Accumulation Risk

Exposure to non-natural catastrophes ("non-nat cats") is increasing within the Lloyd's market and the wider insurance industry. Non-natural catastrophe risk is defined as events (i.e. an accumulation of claims with a common cause) which are not the result of the natural processes of the earth. Examples include cyber events, pandemic, terrorism and other man-made cats as well as space weather. Compared to natural catastrophes, these risks are less well understood and can evolve at an increasing pace. The November 2020 PRA Dear CRO letter also highlighted that, across the industry, exposure management frameworks for non-property classes of business are less mature than property classes, with varying degrees of progress for this risk in the market.

Lloyd's has highlighted to agents that there will be enhanced oversight on modelling of non-natural catastrophes, with a thematic review planned by MRC Syndicate Capital in 2022. Ahead of this review, Lloyd's is collecting some high-level information in the Focus Areas return. This will be used to inform areas for review in 2022 and to help provide 'best practice' guidelines. The responses may also be used in the review of the current LCR submission.

Agents should be able to quantify the materiality of non-nat cats to capital, as it is a regulatory requirement that syndicates understand their risk profile and have a capital model that materially reflects this risk profile. The materiality of non-nat cats to overall capital is required to be reported in the Focus Areas return. Agents should explain what approach they have taken in this quantification, as Lloyd's would like to use this information to determine how it ensures consistency in approach across the market.

A specific focus is on the Cyber exposure Lloyd's has – therefore the impact of cyber risk is also being requested.

Lloyd's issues scenarios across natural and non-natural catastrophes in the form of Realistic Disaster Scenarios and less formal data collections. Recently, new Cyber and Liability scenarios have been provided to the market and syndicates are required to assess whether these scenarios are material for their risk profile. Lloyd's requires that the return period of these scenarios is tested against the agents' 2022 model to demonstrate that their model adequately allows for losses in these circumstances. Agents must provide the return period for the losses in these scenarios at the overall level of capital, but also at more granular risk levels, to demonstrate this.

In addition, agents have been asked to provide information on the dependency modelling between cyber events for Lloyd's to better understand the underlying assumptions.

Agents are also requested to provide the same quantitative details of 3 scenarios that are specific to the syndicate. These should be scenarios that are used in either parameterisation and / or validation of the syndicate's capital requirements and may or may not be Realistic Disaster Scenarios as issued by Lloyd's. The key determinant for scenario selection reported in the Focus Areas is that they should be reflective of the material non-nat cat accumulation risks that the syndicate is exposed to, and should as far as possible be materially 'different' to each other. This is to allow Lloyd's to see the range of scenarios considered across the market to inform future market oversight activities. For example, we would not expect to see 3 different financial crisis scenarios.

Other information is also requested from agents to help Lloyd's understand the state of non-nat cat modelling as it pertains to capital modelling across the market. This includes a brief description of methodologies used, what agents consider to be the main limitations of this component of their internal model, and agents' plans to develop their models in future. This information will help Lloyd's to understand market level practice and identify any areas of focus for the 2022 thematic review.

5.3 Other Focus Areas for the 2022 YoA

Finally, there are some general queries to collect information to assist with the modelling in the Lloyd's Internal Model. These are described in questions 3-6 on the "2022 General Queries" tab of the Focus Areas return, covering

- Asset returns on a one-year basis;
- The impact of non-proportional reinsurance on an ex-natural catastrophe basis;
- Closing Unincepted Legal Obligations (ULO) on the time 1 balance sheet; and
- The materiality of the dependency between market risk and insurance risk.

6 Appendix 1: Reinsurance Concentration Risk

This appendix contains some more detailed requirements for Reinsurance Concentration risk to supplement the requirements already contained in the Lloyd's Capital Guidance. Please note that this guidance is not new but was previously available on request – so it has been added here for completeness and will be included in the next version of the Lloyd's Capital Guidance.

It can be difficult to accurately quantify the capital requirements in typical capital models in cases where the reinsurance protection is concentrated, due to the binary nature of defaults arising or not and the remote possibility usually attributed to the likelihood of any single reinsurer defaulting. Lloyd's Outwards Reinsurance team has issued a Reinsurer Concentration Risk – SCR Impact note, and agents should contact this team for any further information if the following considerations indicate that the syndicate has reinsurance concentration risk.

When assessing concentration risk, managing agents should also consider the extent to which reinsurance recoveries with separate legal entities that are part of the same corporate group should be aggregated ("Concentrated Reinsurer").

Where a syndicate has a significant concentration to individual reinsurers and/or to a corporate group of reinsurers (including intra-group related party and intra-Lloyd's arrangements) managing agents should provide an assessment of the impact of the reinsurance counterparty/group failing.

Lloyd's expect that at least the following should be considered significant concentrations:

1. In excess of 50% of the expected reinsurance recoveries at the mean are from the Concentrated Reinsurer, or
2. In excess of 50% of the expected reinsurance recoveries at the 99.5th are from the Concentrated Reinsurer, or
3. In excess of 50% of the expected reinsurance recoveries under stressed / tail scenarios are from the Concentrated Reinsurer, or
4. The reinsurance recoveries from the Concentrated Reinsurer are expected to exceed 20% of the syndicate's total balance sheet assets

At these levels Lloyd's expects the managing agent to be considering deterministic reinsurance concentration risk thresholds alongside modelled results and applying additional risk provisions to capital where these concentration risk thresholds are not met by the modelled outcome alone. This is because probabilistic modelling alone can understate the level of risk.

Lloyd's would expect this to be calculated on the difference between the SCR values with and without the benefit of the reinsurance with the Concentrated Reinsurer that presents the concentration risk.

The scale of the provision should also reflect any positive and negative risk features including the:

1. Financial strength of the reinsurer
2. Scale and nature of any supporting collateral
3. The value of any funds withheld that is available to offset actual or potential recoveries
4. The volume of reinsurance contracts involved.

Accordingly, Lloyd's expects the capital charge to increase in step with the materiality of these features and be significantly higher than perhaps the stand-alone Financial Strength Rating, albeit appropriately stressed, would indicate.

If Lloyd's considers any concentration provision to be insufficient then an additional load may be required to be added to the SCR.

When high levels of concentrated counterparty exposures are present, Lloyd's also expects credit risk to contribute materially to capital, so any material levels of diversification would need to be substantiated by the managing agent.