Bank of England

Prudential Regulation Authority

Life Insurance Stress Test 2022

Scenario Specification, Guidelines and Instructions

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Contents

Introduction

This document provides instructions for completing the PRA's Life Insurance Stress Test (LIST) 2022.

The deadline for submission for this exercise is: 5pm, Wednesday 28 September 2022

The previous exercise was conducted in 2019, with the industry feedback published in June 2020[1].

For the 2022 exercise, we have made some notable changes as set out below.

We have changed the specification:

- The use of a staged approach for the scenario, and setting out the permitted management actions at each stage, is designed to achieve greater consistency and will more readily enable the PRA to identify differing approaches across firms.

We have redesigned the data reporting requirements:

- The amount and granularity of data captured in the quantitative templates has been reduced.

We have added a request for additional quantitative and qualitative details that will inform our view of a firm's stress test governance and risk management:

- In addition to the quantitative templates, firms are asked to provide a "Results and basis of preparation" (RBP) report. Each firm is required to set out in the RBP report its governance process and quality assurance in completing this exercise, as well as to provide a narrative around the results, including the conclusions, limitations, data or modelling issues and its approach to validation of the results.

- Firms are also asked to provide information on management actions, liquidity resources and Equity Release Mortgages (ERMs) through the scenario stages.

For completeness, the overall structure of the documents provided is as follows:

- this document provides the instructions for completing the quantitative templates;

[1] https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/letter/2020/insurance-stress-test-2019-feedback.pdf.

- the quantitative templates specify the nature and structure of the numerical information that needs to be provided for each stage of the scenario; and
- the requirements for the RBP report document sets out the qualitative information that firms will need to submit.

Objectives

The PRA has three objectives in conducting this exercise:

1. ***Assess sector resilience to severe but plausible adverse scenarios***: For life insurers, we are focussing on the consequences of severe disruption in financial markets, affecting both rates and market liquidity, followed by an additional longevity shock.

2. ***Guide supervisory activity***: The process of stress testing yields valuable information about a firm's vulnerability as well as modelling and risk management capabilities. For example, it might highlight shortcomings in proxy modelling capability, or excessive reliance on liquidity in particular financial markets. We will follow up any such findings, if material, in our assessment of key risks of firms and in setting supervisory priorities and work plans.

3. ***Enhance the PRA's and firms' ability to respond to future shocks (support capacity building)***: The information we gather enhances the PRA's ability to run desk-based analysis of new shocks and be better prepared to assess sector resilience and respond in the event of similar scenarios occurring. Aggregating responses to questions about management actions will allow the PRA to plan better to mitigate the collective, systemic impacts of such actions, and will support firms in understanding the potential market implications of their decisions.

The LIST 2022 results will guide supervisory activity and focus; it is not a pass/fail exercise.

Entities in scope

UK life insurers with significant annuity exposures will be requested to provide a separate submission for each of their solo UK legal entities with a significant annuity exposure. See **Annex 2** for entities in scope for this exercise.

Where firms have not received a request to participate, they do not need to submit a response. Should firms wish to be included in the exercise, they should contact their supervisor at the PRA, copying in **IST.2022@bankofengland.co.uk**.

LIST scenario executive summary

In the current heightened geopolitical and economic environment, and given the continued impact of Covid-19, the resilience of the financial sector remains paramount in order to ensure that the financial system can continue to support businesses and households. Firms need to assess and address the challenges of potential changes to the economic and claims environment.

The financial resilience of the life insurance sector will be assessed by the Life Insurance Stress Test (LIST) 2022. The PRA will publish the sector's financial resilience assessment including aggregate numerical results following Stages 3 and 4 of the scenario, which allow firms to take credit for management actions.

LIST 2022 is independent of the PRA's Solvency II Review Project.

The scenario is set out with four stages capturing the evolution of the stresses and management actions within 1 year, and is summarised in **Figure 1** below. Across all stages it is envisaged that there will be no loss of Matching Adjustment (MA).

Figure 1: Life Insurance Stress Test (LIST) scenario

Stage 1: Initial Market Shock	Stage 2: Developing Market Shock	Stage 3: Protracted Market Shock	Stage 4: Protracted Market & Longevity Shock
No trading post stress	No trading post stress except swaps (MA tests can be met)	Trading post stress: Swaps and current liquid secondary markets	Trading post stress: Swaps and current liquid secondary markets
Stress: *Interest rates: -50bps* *Equities: -33%* *Option volatilities: +700bps* *Credit rating downgrades incl. reinsurance: None* *Credit spreads: e.g. BBB +325bps*	Stress: *Interest rates: -50bps* *Residential Property: -28%* *Equities, commercial property: -33%* *ERM securitisations re-rated* *Option volatilities: +700bps* *Credit rating downgrades incl. reinsurance: 30% 1CQS* *Credit spreads: e.g. BBB +240bps* *BBB downgrading to BB +520bps*	Stress: *As per Stage 2* *plus* *ERM securitisations can be restructured*	Stress: *As per Stage 2* *plus* *ERM securitisations can be restructured* *plus* *Longevity stress: 7.5% base table stress*
Post TMTP recalculation impact	Post TMTP recalculation impact	Post TMTP recalculation impact	Post TMTP recalculation impact

Stage 1, the initial market shock, is a rapid financial market shock with Stage 2 developing this to allow for time lags for credit rating downgrades and a property value shock. The management actions restrictions have been set so that there is consistency between firms. They also reflect the fact that events can evolve rapidly and market illiquidity increases in stress.

Stages 3 and 4, being alternative end states with the latter including a longevity shock, both allow for the recognition of management actions that could be predictably and gradually implemented within 12 months, for example as trading conditions in financial markets permit.

The PRA considers that the four stage LIST 2022 scenario represents a plausible severe shock that (allowing for changes in longevity experience) could commence within 3 to 5 years. It is not intended to represent an event with a particular degree of severity as that will vary between firms according to their risk profiles. The scenario does not have a specific starting trigger event (since what could cause any particular stress scenario is not necessarily foreseeable). The scenario design and calibration has considered the speed of development of market shocks such as COVID-19 in March 2020, experience over the last 20 years and recent annual concurrent stress tests for banks and building societies.

The calibration of the commercial and residential property value stresses within the scenario, similar to the credit rating downgrade stress, take into account time lag before the full extent of the stress originating from an event is recognised. This considers a period beyond one year.

The risks stressed within the scenario take into account the most material risk exposures of most annuity insurers after allowing for risk mitigation. For this reason the level of inflation is (for simplicity) not stressed despite the developments since the start of 2022, including an increase in the short-term inflation outlook.

The scenario does not incorporate any specific Government or Bank of England policy or supervisory actions. This is because there is inherent uncertainty about actions that could be taken, timing and how financial markets would respond. The aggregate results of the scenario may therefore inform such policy or actions in the future (linked to the third IST objective).

The scenario has been designed to maximise consistency of timing of the recognition of management actions in order to achieve suitable comparability of firms' results and journeys through the scenario. It also seeks to balance the intentions that the scenario captures information on both capital and liquidity. To avoid the liquidity stress unduly affecting capital impacts for the first two scenario stages, firms may assume an unlimited liquidity line. This should avoid the loss of MA, the need to remove liabilities from a MA portfolio or an inability to meet margin and collateral calls.

Structure of the life insurance stress test

This exercise consists of one scenario with four stages, designed to capture adverse economic, liquidity, counterparty and longevity shocks. All four stages are designed to represent a set of events that could develop over a year: as such Stage 2 is assumed to occur after Stage 1; Stage 3 is assumed to occur after Stage 2; and Stage 4 is an alternative end state that is also assumed to occur after Stage 2. The purpose of Stage 2 is to provide an interim step between Stage 1 and Stage 3 or 4 with requirements to comply with MA tests, recognise collateralisation call requirements and re-rate ERM securitisations, while only having available a very limited range of management actions. The constraints are strictly to achieve consistency of firms' results by stage.

Firms' responses in the RBP report will also support the PRA's supervisory objectives in areas including management actions, liquidity risk management, ERMs and annuity counterparty risk.

***Stage 1* (initial market shock)**: This is designed to represent an initial market shock where the impact is assessed prior to any management actions in relation to new reinsurance agreements or external trading in financial investments (including derivatives). This stage covers adverse movements in interest rates, credit spreads, equities and option volatilities.

***Stage 2* (developing market shock)**: This follows on from the initial market shock to capture a lagging shock to credit ratings, commercial property and residential property. ERM securitisations will need to be re-rated. The impact is assessed prior to any management actions in relation to new reinsurance agreements or external trading in financial investments (including derivatives except interest rate and inflation swaps).

***Stage 3* (protracted market shock)**: This is 12 months after the initial market shock. The impact is assessed after a limited range of management actions such as orderly implementation of external trading of liquid financial investments including derivatives, and ERM securitisations can be restructured.

***Stage 4* (protracted market and longevity shock)**: This is an alternative end state to Stage 3 and incorporates an increase to longevity expectations. The impact is assessed after a limited range of management actions such as orderly implementation of external trading of liquid financial investments including derivatives, and ERM securitisations can be restructured.

This set-up requires firms to consider the financial impact and their possible management responses at each stage as the scenario evolves without anticipating the subsequent evolution, which in an actual event would be uncertain (in other words firms must not assume perfect foresight).

For the PRA, this approach provides a basis for assessing whether firms have been consistent in their approach and methodology, as well as the ability to assess the plausibility and impact of firms' management actions in light of the sector response. The management actions recognisable in the scenario, in particular in Stages 1 and 2, are restricted where the decision time, cost, time to implement or impact (including on financial markets) are most uncertain. The intention from restricting most trading management actions until Stages 3 and 4 is so that the changes from Stage 2 to Stage 3, and from Stage 2 to Stage 4, are used to capture the key management actions impact consistently for all firms.

Although the four stages are loosely assumed to cover a one year period, for simplicity firms should assess the impact on both the asset and liability side as an instantaneous stress to their Solvency II year-end 2021 balance sheet.

The PRA has produced a Q&A (see **Annex 1**) to provide firms with technical clarifications.

***The PRA has designed these scenarios, including all parameters and calibrations, for the purpose of this stress testing exercise only. Firms should not interpret them as indicators of a PRA position on risk calibrations*.**

Accounting and reporting

Accounting basis

Firms are requested to provide a separate quantitative submission, on a Solvency II basis, for each UK solo legal entity within the scope of the exercise. Where a firm is uncertain as to the scope of its submission, it should consult with, and obtain the agreement of, its PRA supervisor.

General description

The stress testing data templates have been developed in Microsoft Excel. Data requested in the templates will need to be submitted to the PRA via the BEEDS portal (see Section B "Data submissions process").

In the template provided with these instructions, the following data requests are included:

- basic information about the firm;
- summary (key metrics for each scenario);
- pre-stress information including balance sheet, Solvency Capital Requirement (SCR), Minimum Capital Requirement (MCR), own funds, reconciliation reserve and MA calculation information;
- post-stress information for each stage of the scenario including post-stress balance sheet, SCR, MCR, own funds, reconciliation reserve and MA calculation information; and
- reinsurer information for the opening balance sheet and after Stage 4.

The required input cells are clearly labelled within the workbook. Do not add any rows, columns or new worksheets to the Workbook.

Opening balance sheet, capital requirements, own funds and reinsurance

Firms are required to provide, as at year-end 2021, their balance sheet, SCR, MCR, available own funds to meet the SCR and MCR, and reinsurance exposure information. The LIST template provides the necessary Solvency II Quantitative Reporting Template (QRT) references, where relevant.

Production of the balance sheet, capital requirements and own funds following each scenario stage

Firms are asked to stress their year-end 2021 balance sheet by applying the scenario stage instantaneous shocks specified. Firms may then apply management actions as permitted for each scenario stage before recalculating their balance sheet, own funds (basic, ancillary and eligible), SCR and MCR. The balance sheet following each stage of the scenario should reflect the recalculated TMTP using an approach already agreed with the PRA. Reinsurance exposure is only required after the longevity shock in Stage 4.

The opening balance sheet including TMTP, own funds (basic, ancillary and eligible), SCR and MCR should be consistent with the year-end 2021 annual QRTs. The scenario stage stressed balance sheet, own funds (basic, ancillary and eligible), SCR and MCR should be of a standard equivalent to that which is sufficient for external unaudited public disclosure, for example capital market forward-looking financial statements or presentations on the business model.

Management actions

Firms should disclose in the RBP report what management actions they have assumed at each stage of the scenario and how this would impact their own funds and SCR.

Any assumed management actions must be consistent with those that can be taken given the scenario narrative and that are realistic in the context of the firm's normal risk management governance. For the purposes of deciding which management actions to recognise, the following time horizons provide a guide. In determining what is realistic, sufficient time should be allowed for development, governance and orderly implementation allowing for market illiquidity:

- Stage 1 – One day
- Stage 2 – Within 1 month
- Stage 3 – Within 12 months
- Stage 4 – Within 12 months

Firms should set out in the RBP report the management actions that they have assumed, including lead time to deliver the implementation. Separately, each firm is requested to outline in the RBP report information on further management actions not included within the results that the firm could consider following the scenario.

Some firms may find that they have insufficient management actions to restore compliance with MA requirements post-stress notwithstanding Stage 1 permits MA matching tests not to be met without loss of MA. In any stage where this occurs, firms should seek to remove liabilities from the MA portfolio so that an MA compliant position can be achieved prior to determining the post-stress SCR. The balance sheet position should be shown following this action, but where this action is taken, firms should clearly state this and provide details including quantitative information as to the impact of the action in the RBP report. The post-stress SCR should be based on the MA compliant position.

Where a firm anticipates re-capitalisation plans, the firm should provide this information, but should not assume that new capital will be in place before year-end 2022 unless existing contractual arrangements allow for this. Details of any such contractual arrangements should be included in the RBP report.

Internal models (IMs)

Firms with an approved (full or partial) IM need only provide the IM SCR view based on their approved IM as at year-end 2021. Firms in the IM approval process (IMAP), or undertaking major model changes during 2022, should discuss with the PRA on what additional alternative basis/bases they may be able to provide results and whether this would significantly impact the results, management actions and conclusions. There is no requirement for firms to provide additional alternative basis/bases results. For all other firms on the Standard Formula, including firms intending to make an IM application after 2022, the SCR should be based on the Standard Formula.

Firms with an approved (full or partial) IM may not make changes to their IM, including calibrations for the purposes of the LIST 2022 exercise, except the regular changes required to reflect the stressed initial financial conditions.

Reporting of ring-fenced funds

The LIST quantitative template has been designed to enable the PRA to understand the impact on firm-level solvency coverage (with and without the recalculation of TMTP), SCR, MCR, the amount and quality of own funds and the amount and quality of eligible own funds under each stage of the scenario.

The balance sheet information should be split between; a) the main fund for a mutual or (for proprietary companies) funds other than ring-fenced funds (including any MA portfolio(s) that are part of those funds); b) the remaining ring-fenced funds (including any MA portfolio(s) that are part of those funds). This split is requested due to restrictions on the transferability of the own funds within ring-fenced funds. The RBP report is intended to be used by firms to provide more detail where firms have one or more ring-fenced funds so that the PRA can understand how these have impacted the firm-level view and the anticipated strength of the ring-fenced funds in stress.

Reporting of reinsurance

The LIST quantitative template is designed to enable the PRA to understand the impact on reinsurance counterparty exposure with information requested (in the 'Reinsurance' tab) only for the opening balance sheet and post scenario Stage 4 (protracted market and longevity shock).

Public disclosure

The PRA will not publish any firm specific information as part of this exercise. Where there is a need to take firm-specific supervisory action, the PRA will do so as part of its normal supervisory engagement with the firm.

The PRA intends to publish a Dear CEO letter containing its findings at an aggregate level, drawing attention to sectoral findings or learnings of interest at a market level.

Queries

All queries should be submitted to **IST.2022@bankofengland.co.uk**, copying in the firm's PRA supervisor. Please ensure that the firm name and FRN is included in the subject of the email.

Enclosures

a)	**Life Insurance Stress Test 2022 - Template**	Structured data template to record results
b)	**Risk-free curves as of 31 December 2021 - LIST Stage 1** **Risk-free Volatility Adjustment portfolios as of 31 December 2021 - LIST Stage 1** **Smith-Wilson extrapolation parameters as of 31 December 2021 - LIST Stage 1** **Risk-free Fundamental Spreads, Probability of Default and Cost of Downgrade as of 31 December 2021 - LIST Stage 1** **Risk-free curves as of 31 December 2021 - LIST Stages 2 to 4**	Files containing Solvency II technical information for use in the scenario stages

	Risk-free Volatility Adjustment portfolios as of 31 December 2021 - LIST Stages 2 to 4	
	Smith-Wilson extrapolation parameters as of 31 December 2021 - LIST Stages 2 to 4	
	Risk-free Fundamental Spreads, Probability of Default and Cost of Downgrade as of 31 December 2021 - LIST Stages 2 to 4	
c)	**RBP report requirements**	Document setting out the requirements for the RBP report

Section A – Life insurers scenario specification

1.1 Event definition and assumptions

The scenario (**Figure 2**) will examine the impact of a severe financial market shock in three stages, with an additional longevity improvement shock in the fourth stage. The scenario as a whole is designed to represent a 1 year long scenario starting within the next 3 to 5 years, although stresses for all stages will be applied at time 0. The four stage design aims to improve comparability across firms by restricting the management actions that can be recognised post-stress for each stage.

The choice of financial and non-financial risks to stress within the scenario has taken into account a range of factors including balance sheet and solvency risk sensitivities after allowing for risk mitigation. For example, this led to a choice not to stress the implied inflation curve. Similarly, how those risks are stressed incorporates simplifications. For example, this led to the choice to apply parallel shifts to interest rates, credit spreads and volatility surfaces.

The split of the scenario into stages is designed to reflect lags in financial shocks and to separate out the impact of management actions and the longevity shock. The scenario is primarily a capital stress, but also requires firms to consider uncertainty and range estimates when assessing their liquidity risk. The uncertainty and ranges should be explained and reported in the RBP report.

Figure 2: Life Insurance Stress Test (LIST) scenario

Stage 1: Initial Market Shock	Stage 2: Developing Market Shock	Stage 3: Protracted Market Shock	Stage 4: Protracted Market & Longevity Shock
No trading post stress	No trading post stress except swaps (MA tests can be met)	Trading post stress: Swaps and current liquid secondary markets	Trading post stress: Swaps and current liquid secondary markets
Stress: *Interest rates* *Credit spreads (<u>no downgrades</u>)* *Equities* *Option volatilities*	Stress: *As per Stage 1* *plus* *Credit spreads <u>incl. downgrades</u>* *Commercial property* *Residential property* *ERM securitisations re-rated* *Reinsurance downgrades*	Stress: *As per Stage 2* *plus* *ERM securitisations can be restructured*	Stress: *As per Stage 2* *plus* *ERM securitisations can be restructured* *plus* *Longevity stress*
Post TMTP recalculation impact	Post TMTP recalculation impact	Post TMTP recalculation impact	Post TMTP recalculation impact

Table 1 below provides a summary of the calibration for the scenario stages with all shocks applied at time 0, with the same shocks applying to all currencies.

The direction of the interest rate stress has been set as being the most onerous for insurers in terms of impact on the SCR coverage ratio. Typically at the onset of a severe stress increased demand for risk-free assets results in a fall in the risk-free interest rate yield curve.

The credit rating downgrade stress should be applied pro-rata to each individual exposure and counterparty except for ERMs and sovereign governments.

The 30% 1CQS downgrade shock is a simplification that has been calibrated taking into account downgrades greater than 1CQS including defaults.

The longevity stress reflects 3 to 5 years of future adverse longevity experience (people living longer), resulting in a step change to expected future longevity improvements. The longevity shock applies to all longevity exposure liabilities including defined benefit pension schemes. The longevity shock is represented as a shock to longevity base tables for ease and consistency of application of the stress by firms.

The subsequent sections provide further details on the assumptions and credit for management actions that firms can take at each stage of the scenario.

Table 1: LIST scenario calibration summary

Risk factor	LIST 2022	
	Initial market shock (Stage 1)	**Developing market shock onwards (Stages 2 – 4)**
Interest rates (real and nominal)	-50bps	-50bps
Interest rates - Ultimate Forward Rate	No change	No change
Interest and inflation rate option implied volatilities	+700bps[2]	+700bps[2]
Equities	-33%	-33%
Equities option implied volatilities	+700bps[2]	+700bps[2]
Property commercial	No change	-33%
Property residential	No change	-28%
Property option implied volatilities	No change	No change
Corporate and other non-sovereign downgrades and credit spread stress		
Downgrades (excluding internal ERM securitisations)	No downgrades	30% 1CQS
AAA	+115bps	Non-downgraded assets: +100bps Downgraded to AA assets: +145bps
AA	+160bps	Non-downgraded assets: +130bps Downgraded to A assets: +230bps
A	+225bps	Non-downgraded assets: +200bps Downgraded to BBB assets: +295bps
BBB	+325bps	Non-downgraded assets: +240bps Downgraded to BB assets: +520bps
BB and lower	+400bps	Non-downgraded assets: +360bps Downgraded by 1CQS assets: +520bps
Sovereign credit ratings and credit spread stress	No downgrades and no change to spreads	
Reinsurance and other counterparties credit ratings	No downgrades	30% 1CQS[3]
ERM mortgages	Revalued based on shock and firm's own SII valuation approach agreed with auditors. Credit ratings of internal ERM securitisations should be reassessed in Stages 2 to 4.	

[2] Increase in log-normal implied volatilities; firms can convert this to an equivalent increase in implied volatilities for derivatives priced relative to another volatility distribution.
[3] For firms not using a credit rating when assessing the counterparty risk exposure another approach agreed with the PRA can be applied.

Risk factor	LIST 2022	
	Initial market shock (Stage 1)	**Developing market shock onwards (Stages 2 – 4)**
Fundamental spread	No change to standard calculations[4]	
Volatility Adjustment	Increased – no change to standard calculations	Reduced from Stage 1 – no change to standard calculations
Symmetric adjustment to the equity capital charge	-10%	
Minimum deferment rate for EVT	No change	Reduced to 0.1% per annum
Longevity assumptions	No change	Stages 2 and 3: No change Stage 4: 7.5% base table stress (reduction to q_x values)

1.2 Stage 1 – initial market shock

This is an initial severe economic and financial market shock where the impact is assessed prior to any management actions in relation to new reinsurance agreements or external trading in financial investments including derivatives. The limitation on trading management actions has been set to achieve greater consistency of results between firms and so to support the analysis of the full impact journey of the scenario.

Assumptions

Firms have been provided with the following assumptions:

1. a parallel shift in real and nominal risk-free interest yield curves;
2. a parallel increase in corporate bond spreads according to credit rating (with no credit rating downgrades for this stage);
3. a fall in equities asset values;
4. an increase in option implied volatilities for equities, interest rates and inflation (specified as an increase in log-normal implied volatilities); and
5. Solvency II technical information and symmetric adjustment to the equity capital charge (SAECC) for the nine relevant currencies.

[4] To avoid minor changes, some simplifications have been made to the basis of calculation.

Requirements and restrictions

In assessing the financial consequences of this scenario stage firms should take into account all of the following:

1. Firms are to assume that no external trading of financial investments (including derivatives) or establishment of new reinsurance agreements takes place after the shock (prior to the valuation).

2. Firms are to assume that only exposures with daily collateralisation are re-collateralised following the shock. Firms are to assess on the same basis whether they have adequate eligible collateral to satisfy their collateralisation calls following the shock and management actions.

3. Firms are permitted to assume that they can draw on pre-arranged external liquidity facilities. If a firm has insufficient amount and quality of assets to meet its daily margin or collateral calls then it may also assume that it can make additional drawing of cash to avoid the failure of those arrangements, but should assess this shortfall.

4. Firms are permitted to assume that they can internally move financial investments within a ring-fenced fund but not between ring-fenced funds or between shareholder and ring-fenced funds. For this purpose an MA portfolio is not considered to be a ring-fenced fund in its own right. Firms may assume that they can add cash to an MA portfolio by drawing on pre-arranged external liquidity facilities. If an MA portfolio has insufficient component A and B assets to cover the best estimate liability after drawing on available MA eligible assets then the firm may after that assume that it can make additional drawing of cash, but should assess this shortfall. In this stage, it is accepted that an MA portfolio may be in breach of the MA matching tests without loss of MA provided component A and B assets are greater than or equal to the best estimate liability. The permitted approach to add cash should in most cases allow this last condition to be satisfied without removing liabilities from the MA portfolio.

Solvency II technical information and symmetric adjustment to the equity capital charge information

The PRA has provided Solvency II technical information and the SAECC for the nine relevant currencies assuming that the LIST scenario occurred immediately before the technical information was calculated. The following parts of the LIST scenario affect the technical information:

- The change in nominal interest rates affects the yield on the instruments underlying the basic risk-free rates. The consequential changes in the basic risk-free rates affect the probability of default (bps) and cost of downgrade parts of the fundamental spread and the Volatility Adjustment.

- The combination of the change in nominal interest rates and the corporate and other non-sovereign credit spread stresses affect the yields on corporate bonds used in the Volatility Adjustment. As an approximation, the durations and long term average spreads are not changed.

- The government bond yields are decreased by the same amount as the decrease in the nominal interest rates so that government bond spreads are unaffected.

All other parameters, including the credit transition matrices, the Volatility Adjustment reference portfolios and the Ultimate Forward Rates, are unchanged.

The SAECC is -10%.

1.3 Stage 2 – developing market shock

The developing market shock follows on from the initial market shock to capture a lagging shock to credit ratings and commercial and residential property asset values. Similarly to the initial market shock, the impact is assessed prior to any management actions in relation to new reinsurance agreements or external trading in financial investments including derivatives (except for interest rate and inflation swaps). The limitation on trading management actions is to achieve greater consistency of results between firms and so to support the analysis of the full impact journey of the scenario. The management action to permit trade in interest rate and inflation swaps post-shock is intended to ensure that firms can re-establish full compliance with MA matching tests and a level of matching to the firm's normal risk management tolerance.

Assumptions

Firms have been provided with the following additional (or adjusted) assumptions relative to Stage 1:

1. a parallel increase in corporate bond spreads where the stress is set out based on credit rating prior to any downgrades;

2. a proportionate credit ratings downgrade for each exposure (including reinsurance and other counterparties but excluding ERM securitisations) by 1CQS with an additional parallel increase in corporate bond spreads (set based on the credit rating prior to downgrade) for the downgrading proportion;

3. a fall in commercial and residential property asset values;

4. a reduced minimum deferment rate for the Effective Value Test (EVT) (noting that the minimum deferment rate is required to be a strictly positive rate); and

5. Solvency II technical information: Volatility Adjustment for the nine relevant currencies.

Requirements and restrictions

In assessing the financial consequences of this scenario stage firms should take into account all of the following:

1. Firms are to assume that no external trading of financial investments (including derivatives) or establishment of new reinsurance agreements takes place after the shock (prior to the valuation), except for the use of swaps as outlined below for MA portfolios.

2. Firms will be expected to re-assess the credit ratings of their internal ERM securitisation notes post-shock.

3. Firms are to assume that only exposures where settlement of collateralisation is required within three months are re-collateralised following the shock. Firms are to assess on the same basis whether they have adequate eligible collateral to satisfy their collateralisation calls following the shock and management actions, and whether they have adequate expected liquidity without trading to meet collateral calls due within three months (excluding those within unit-linked funds).

4. Firms are permitted to assume that they can draw on pre-arranged external liquidity facilities. If a firm has insufficient amount and quality of capital to meet its own daily margin calls then it may also assume that it can make additional drawing of cash to avoid the failure of those arrangements, but should assess this shortfall.

5. Firms are permitted to assume that they can internally move financial investments within a ring-fenced fund but not between ring-fenced funds or between shareholder and ring-fenced funds. For this purpose an MA portfolio is not considered to be a ring-fenced fund in its own right. Firms may assume that they can add cash to the MA portfolio by drawing on pre-arranged external liquidity facilities. If an MA portfolio has insufficient component A and B assets to cover the best estimate liability after drawing in available MA compliant assets then it may after that assume that it can make additional drawing of cash, but should assess this shortfall. A firm may additionally use swaps to restore the MA tests to within normal operational tolerances post-stress.

Solvency II technical information and symmetric adjustment to the equity capital charge information

The technical information has been calculated for Stages 2 to 4 in the same way as described in Section 1.2 above, but with the replacement of the “non-downgraded” credit spread widening stresses. For the avoidance of doubt, all other parameters, including the credit transition matrices, the Volatility Adjustment reference portfolios and the Ultimate Forward Rates, are unchanged.

The SAECC is -10%.

1.4 Stage 3 – protracted market shock

The protracted market shock follows on from the developing market shock and is 12 months after the initial market shock. In this stage firms can reflect the orderly implementation of external trading of financial investments including derivatives where currently liquid secondary markets already exist. For the orderly implementation firms can assume that this can be carried out over up to 12 months without incurring high trading costs (eg high bid/offer spreads) or trades distorting prices relative to the underlying market shock. Firms should not assume any additional reinsurance is purchased.

Assumptions

There are no changes to assumptions from Stage 2.

Requirements and restrictions

In assessing the financial consequences of this scenario stage, firms should take into account all of the following:

1. External trading of financial investments is permitted, including derivatives where currently liquid secondary markets already exist. However, no additional reinsurance may be assumed to be established.

2. Firms are permitted to restructure and revise the credit rating of internal ERM securitisation notes between Stages 2 and 3.

3. Firms are to assume that only exposures where settlement of collateralisation is required within twelve months are re-collateralised. Firms are to assess on the same basis whether they have adequate eligible collateral to satisfy their collateralisation calls following the shock and management actions. Firms are permitted to assume that they can continue to draw on pre-arranged external liquidity facilities if required but not beyond this.

4. Firms are expected to reassess the options for management actions available to them to implement between Stage 2 and Stage 3 in light of (a) the additional time elapsed and (b) the ability to carry out the management actions in the time available.

5. Firms are permitted to assume that they can internally move financial investments within a ring-fenced fund but not between ring-fenced funds or between shareholder and ring-fenced funds. For this purpose an MA portfolio is not considered to be a ring-fenced fund in its own right.

Solvency II technical information and symmetric adjustment to the equity capital charge information

The technical information and SAECC is unchanged from Stage 2 (described in Section 1.3 above).

1.5 Stage 4 – protracted market shock and longevity shock

The protracted market and longevity shock is an alternative end state to the developing market shock and is also 12 months after the initial market shock. The scenario assumes that in the 3 to 5 year period preceding the start of the scenario there has been persistent adverse longevity experience that firms have not reflected as a change to longevity improvement trend assumptions. This last stage of this scenario reflects the history of periodic implementation of material step changes to longevity improvement trend assumptions.

In this stage firms can reflect the orderly implementation of external trading of financial investments including derivatives where currently liquid secondary markets already exist. For the orderly implementation firms can assume that this can be carried out over up to 12 months without incurring high trading costs (eg high bid/offer spreads) or trades distorting prices relative to the underlying market shock. Firms should not assume that any additional reinsurance is purchased.

If a reinsurance counterparty has the legal right to challenge the longevity basis for the re-collateralisation, then firms are to assume that the counterparty exercises that right and that the calculation of collateral requirement is not changed for the longevity basis change.

There are no other changes to the requirements and restrictions as set out in Stage 3, except that firms should assume that this stage follows on from Stage 2.

1.6 Other information on the scenario

For ERM securitisations notes, firms are expected to recalculate the EVT in the stress stages of the scenario. The PRA is only setting the instantaneous residential property shock to be applied by firms within their ERM revaluation for the Solvency II balance sheet. Firms should explain their ERM revaluation in the RBP report.

For defined benefit pension funds firms should calculate the impact from the scenario stages consistently with how they would normally do so for Solvency II reporting. Firms should explain in the RBP report how they have applied the scenario stages to defined benefit pension funds.

Section B – Data submissions process

2.1 Introduction

This section sets out the data submissions process.

Participating firms will be required to submit the Insurance Stress Test Excel template (referred to as “structured data”) as well as the RBP report and any supporting documentation (referred to as “unstructured data”) by **5pm on Wednesday 28 September 2022** via the BEEDS portal.

Firms should ensure that IST 2022 quantitative and qualitative information provided is clear and sufficient. Where this is not the case, the PRA will ask for a resubmission to enable it to make an adequate assessment. Firms will need to provide a resubmission within 5-10 business days of a request (per communication from the PRA at the time of the resubmission request).

2.2 Data submission process

Submission procedure, standard and conventions

Please follow the instructions in this section exactly and completely

Participants are expected to submit IST stress testing files via the BEEDS portal. More detailed information – including the required set-up processes and example error handling – is also available via the **BEEDS User Guide** published on the Bank of England website. If participants have any specific technical issues preventing submission, they should contact the PRA as soon as possible to discuss suitable alternatives (see next section for detailed information on the available support structures).

There may be occasions where BEEDS is unavailable due to maintenance, in which case a firm attempting to submit data at weekends may be unable to access the portal until the following Monday. Scheduled maintenance will not take place around key stress test submission dates and participants will also receive relevant communications as to when such maintenance will occur.

To complement this guidance, submission details will also be scheduled within the BEEDS system.

Summary of Stress Testing key support structures

With regards to the BEEDS portal, there are two key support mechanisms for Stress Testing data submissions.

Firstly, for technical questions specifically regarding the BEEDS portal, please contact BEEDSQueries@bankofengland.co.uk or 020 3461 5360. Standard support hours for these questions are 9am-5pm, Mon-Fri with further details in the **BEEDS User Guide**.

Also, as part of the creation of firm profiles within the BEEDS portal, named individuals in each firm are either BEEDS 'principal users' or 'additional users'. The creation of these users forms part of the BEEDS security profile with the differences between these roles related mainly to different available functionality. Once a submission is made by any of these users via BEEDS, all users will then receive relevant progress notifications.

Secondly, all other communication between the PRA and the participants involved in this exercise is via the Question & Answer (Q&A) process via the **IST.2022@bankofengland.co.uk** mailbox.

For example, if any part of a firm's submission is likely to be delayed, the firm should contact the PRA as soon as possible to discuss alternative arrangements. In such a case, the firm may be asked to submit a partially completed template and then resubmit the template including the missing data as relevant (NB: the Submission ID should then be increased).

File conventions and identifiers

For the .zip files submitted, a filename consists of a number of identifiers de-limited by an underscore '_'and should **not** contain any of the following invalid characters: # % & * : < > ? / { \ " |. **If this guidance is not followed, the firm could be asked to correct and re-submit its files.**

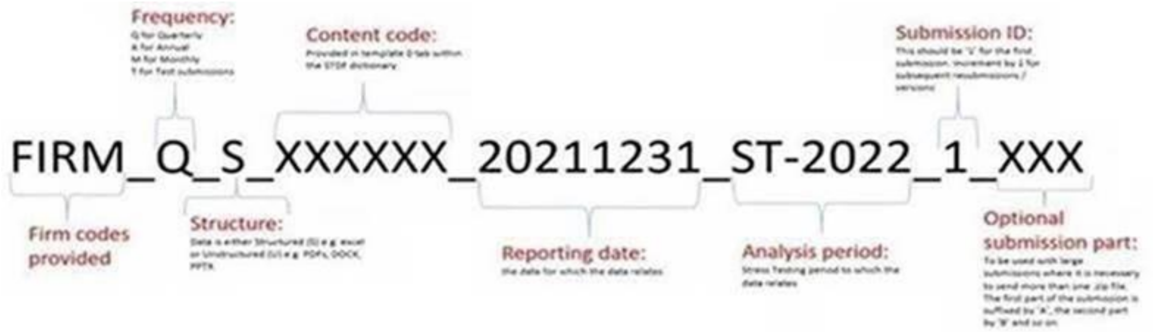
The following outlines how each .zip file name should be structured (in order of appearance in the filename):

- **Firm Codes:** For Insurers, participants should use their FRN codes.
- **Submission Frequency:** This should be "A" in all cases. Participants are reminded to use the BEEDS UAT environment (and will be informed when this is open) for testing purposes.
- **Structure:** Data is either Structured (S) or Unstructured (U).
- **Risk/Category Code:** To be referenced as either "LIFE" or "NONLIFE".
- **Reporting Date:** The date for which the data are applicable, which is the firm's reporting year end (31 December 2021 for most firms). For unstructured data files, this is the reporting date of the associated structured data. This information will also be available to the firms as part of their BEEDS schedule.

- **Analysis Period:** This should be ‘ANNUAL’ in all cases.

- **Submission ID:** This should be ‘1’ for the first submission of a file. For a first re-submission, for example, this should be increased to ‘2’ and so on.

- **Submission Part (<u>optional</u>):** This is for use with large unstructured data submissions where it is necessary to send more than one email each containing one .zip file. The first part of the submission is suffixed by ‘A’, the second part by ‘B’ and so on. Participants are reminded that this part of the filename should **not** be used to identify different versions of submissions.



Number of files in a submission

Participants should send their IST data within .zip files. Participants are reminded that:

a. For unstructured data (responses to RBP report), BEEDS will currently accept zipped submissions up to a maximum zipped file size of 30MB <u>per upload option</u> and BEEDS offers up to 10 of these upload options/buttons per unstructured submission.

b. For structured data (quantitative templates), if participants wish to upload particularly large files, they are encouraged to consider any timing-out risks and / or possible system performance risks within their own IT environments before attempting submissions. Participants are also encouraged to contact the PRA for further guidance ahead of attempting submissions above 60MB in size.

c. Structured and unstructured data must be submitted in separate .zip files.

d. All structured or unstructured data within each individual .zip file must relate to one specific content/category code and must be the same one as noted within the .zip file name.

e. All .zip file names must include a content/category code equating to the one scheduled to each firm via BEEDS or that the firm creates itself (for other unstructured submission purposes).

f. No folder structures should be embedded within .zip files – data submissions should be at the root of the .zip file.

g. Participants are reminded not to put zipped files within other .zip files.

Note that participants may be able to submit earlier than the deadline if they wish – BEEDS will have scheduled a deadline for each submission but will be available to accept early if needed.

Structured data

Structured data files relating to the IST Excel template **must not be split (the PRA expects the total file size to be less than 30MB)**. The relevant template(s) should be submitted as a separate file within its own zip file – i.e. participants should submit one file per zip file for structured data. The structured file within a zip file **must follow the same naming convention as the zip file** and should enable the file to be distinguished from any other submission or re-submission.

All data should be provided in base units (unless otherwise stated). Data in any particular unit currency should be rounded to the nearest unit, without the need to include any decimal points. Ratios and all percentages should be expressed in decimals (maximum of 4 decimal places).

The sign convention to follow is Solvency II reporting convention.

Each sheet includes validation tests within the green shaded area. The "Validation Summary" sheet consolidates all these validations. The validation tests have been set up to ensure that data is internally consistent with the aim that this will reduce the risk of re-submission being required.

The PRA has set a simplified balance sheet for LIST with a defined level of granularity. The PRA recognises that some firms' models or approaches may be unable to provide this level of granularity. To improve clarity a number of lines ending "not split" have been included for use where a firm has less granularity. Each firm is requested to use the comments column on the "LIST BS" sheet to set out its differences between the simplified balance sheet derived from the QRT balance sheet and the balance sheet used for LIST.

Unstructured data

Unstructured data refers to either the information that participants are requested to provide in response to the questions in the RBP report, or any other unstructured documents (ie participants can choose the format, structure and number of these documents themselves) that participants proactively choose to submit to aid understanding of their structured submissions.

For the RBP report submissions, participants will receive schedules for the relevant returns within BEEDS.

For other unstructured IST documents that participants may choose to submit, participants should follow relevant steps in the **BEEDS User Guide** on how to create their own 'unscheduled' unstructured returns within BEEDS. For these 'unscheduled' unstructured returns created by participants, participants must add an 'effective date' of 31 December 2021 in BEEDS when creating them.

Firms are reminded that, if they wish to submit more than one unstructured submission with the same category code and the same effective date, then there are ten upload options within each unstructured submission. Additionally, if they then wish to submit additional files at a later point for the same code and same effective date as before, they should do this via requesting a resubmission in BEEDS (see Section **Resubmissions** below for more details).

If a firm wishes to submit more than one unstructured return, with different category codes but with the same effective date, it may receive an error message stating there is already a return with the same effective date. If this occurs, please see "Section 8 Manager Users" in the **BEEDS User Guide** on how this can be resolved.

Acceptable formats **specifically for unstructured data files** are .XLSX, .DOCX, .PDF, .PPTX, .CSV and .TXT. If a firm needs to report in other formats, it should contact the PRA to discuss next steps.

The files within the .zip should **all relate to the same content code** and - whilst they do not need to follow specific naming conventions - they should have an understandable, distinguishable and descriptive name.

Until then, BEEDS will reject these submissions if they are submitted as structured returns.

Data encryption

The BEEDS portal is a secure interface through which participants will submit templates in a number of other exercises. Participants should refer to the information available via the

BEEDS User Guide (and associated links) for further guidance on this connection and associated processes (for example, usage of security questions).

Resubmissions

Participants must log on to BEEDS to request a resubmission of any information via the relevant functionality. As per the Submission ID noted above, the revision number in BEEDS should increase for every resubmission completed. Please see the **BEEDS User Guide** for further details on resubmissions.

When sending these resubmissions via BEEDS, the following guidance for participants remains:

- ensure that all templates still reconcile as expected after any changes made;
- submit only one final version of the template incorporating **all** changes; and
- ensure re-submitted data templates are accompanied by a supporting [unstructured] document to provide details of the changes made since the previous document; specify the reason for resubmission and data quality issues addressed (eg in response to IST Q&A log process).

The PRA will only process changes to data that it has requested – participants should therefore limit changes to those that have been requested by the PRA and clearly highlight them.

Firms are also reminded that, if they wish to submit more than one unstructured submission with the same category code and the same effective date, then there are ten upload options within each unstructured submission. Additionally, if they then wish to submit additional files at a later point for the same code and same effective date as before, they should do this by requesting a resubmission in BEEDS.

Key Submission Header and other template guidance

All firms must include both the legal **Firm name** and relevant **Firm Registered Number (FRN)** in the appropriately labelled cells in all submission headers. The **Firm name** should be exactly the same as the entry in the Firm Profile on BEEDS for the corresponding FRN.

Firms are asked:

- To **complete all tabs, as appropriate**, in the IST structured template(s). Systems tabs shall be hidden and will not require any actions from firms.

- **It is <u>vital</u> that participants fill in this name** and **FRN information correctly for <u>every</u> submission.** Also, if participants amend their FRNs for any reason, they should inform their PRA Supervision contacts through the standard Q&A process.

- For the **Submission ID**, for the first submission please report 1, each subsequent resubmission should increase the Submission ID by 1 so that the Submission ID for the second submission would be 2 and so on.

- The **Reporting date** in the template will be the firm's reporting year end (31/12/2021 for most firms). This information will also be provided to the firms as part of their BEEDS schedule.

- The PRA **analysis period** in each template will be "Annual".

- Please ensure that the **Risk Type** in the submission header remains as per the template when it was published. Participants should not change this information.

- The **Submission content type, Submission period type, Version** or any of the **tab headers** should **<u>not</u>** be amended from what was provided in the templates when they were published.

- In relation to **Worksheet names, Column names** and **Enumerations**, please do not replace or delete any of the Worksheet names from what was published. For example, please do not replace underscores "_" in worksheet names with dashes "-" and do not amend the case of any letters in the Worksheet names (e.g. Submission_header not Submission_Header). Also, please do not change the spelling or order of any column names from the templates provided and do not add any columns or change the order of columns in the templates provided.

Annex 1 Q&A for life insurance participants including responses to firm feedback from the first and second request for technical input (life insurance)

	Questions / issue raised	PRA response
Scenario narrative		
1.	Can you provide a scenario narrative for use with senior management?	The LIST scenario executive summary is provided in the updated 'LIST 2022 Scenario Specification, Guidelines and Instructions' document.
2.	Why are potential HM Government and/or Bank of England policy actions not recognised?	HM Government and Bank of England policy actions are discretionary. Part of the third objective for IST 2022 is to enhance the PRA's ability to respond to future shocks; we consider that it would be helpful for the scenario to exclude policy actions in order to identify the scale of intervention that might be necessary and keep open all options.
3.	Will the results of this exercise be used to inform the outcomes of the Solvency II Review?	No, the results of the IST 2022 are not intended to inform the Solvency II Review Project. The two are separate and independent. IST 2022 will be carried out on the basis of Solvency II as it applied at year end 2021.
4.	What is the reason for using a four-stage structure of the scenario?	The four stages of the life scenario are modelled as time zero stresses. The periods indicated for the evolution of each stage are not roll-forward periods for modelling but periods designed to guide the assessment of appropriateness of management actions. The structure makes it possible to separate out the impact of each stage's stress on a firm and the impact of taking management actions in mitigation. The restrictions on management actions at certain stages will also help to ensure consistency in the outputs from firms.
5.	Can you comment on how the strength of property stress has been set.	The calibration of the commercial and residential property stresses within the scenario, similar to the credit rating downgrade stress, take into account time lag before the full extent of the stress originating from an event is recognised. This considers a period beyond one year.
6.	Why has the minimum EVT deferment rate been updated from Stage 2?	The minimum EVT deferment rate is normally reviewed and potentially updated in March and September. The PRA has discretion to update it more frequently, for example in response to market movements. Changing the minimum EVT deferment rate reflects application of this discretion.

		The minimum EVT deferment rate is required to be strictly positive.
7.	How will the PRA take into account that firms have different management action capabilities?	The PRA aims to ensure consistency of outputs from firms by restricting certain management actions that can be taken at each stage. Differences in management action capabilities will be picked up through the RBP report, which will give firms the opportunity to set out management actions that they have not recognised in their outputs or other actions that they would take beyond those permitted within the scenario, as well as commentary on the impact that they expect these would have.
8.	Could consideration be given to whether any countercyclical adjustments may be appropriate in the scenario?	Part of the third objective for IST 2022 is to enhance the PRA's ability to respond to future shocks. Introducing new countercyclical adjustments is an example of a potential future policy action that might be considered subsequently.
9.	Are the major markets assumed to be shut for a prolonged period in the LIST scenario?	No. The reason for the LIST scenario stage restrictions is to achieve consistency between firms in the potential management actions recognised in the results at each stage.
10	Why is external trading not permitted in Stages 1 and 2?	The costs and losses from trading in disorderly markets (Stages 1 and 2) is higher than orderly trading (Stages 3 and 4). The trading restriction ensures consistency in the stages where external trading management actions are recognised and also results in lower costs and losses from trading during the scenario. This is consistent with the PRA's anticipation that firms would seek to manage the volume and timing of their external trades in order to avoid excessive costs and losses, thereby improving their end of scenario position (Stages 3 and 4).
11	Why in Stages 1 and 2 is no trading in money market funds and other cash-like assets permitted?	The intention in the liquidity stress is for firms to identify whether they have sufficient amount and quality of assets to satisfy collateral calls before trading management actions. A money market fund is not necessarily as liquid as cash. Firms should explain in the RBP report their liquidity resource management including, where relevant, details of assets they hold and would plan to sell to satisfy collateral calls.

		In Stages 1 and 2 firms may draw cash beyond any pre-arranged liquidity facilities in order to allow collateral calls to be satisfied.
12	Why cannot a firm assume that it sells illiquid assets or puts in place additional reinsurance?	The prices at which illiquid assets could be traded in stress has greater uncertainty than more liquid assets. There may be restricted availability of reinsurance and uncertain cost in the stress. The scenario is testing the resilience of firms without assuming these management actions; this will also achieve greater consistency of results between firms.
13	What is the definition of orderly and disorderly trading?	An orderly market is any market in which supply and demand are reasonably equal so that normal trading can be undertaken without moving market prices. A disorderly market is a characterisation of market conditions whereby there is excessive volatility at a time when there is no news materially driving prices in a particular direction. The volatility is often caused by supply and demand imbalances.
14	Are all internal movements of assets disallowed during the scenario?	Firms can move assets into and out of their MA portfolios following each of the stages of the scenario. Restrictions will only apply on asset movements into and out of a ring-fenced fund (where an MA portfolio is not treated as a ring-fenced fund in its own right).
15	Why are MA matching tests required to be met from Stage 2?	The PRA's expectation is that firms would seek to restore compliance with the MA matching tests as soon as practical. The management actions permitted from Stage 2 are sufficient for firms to meet the MA matching tests. Requiring all firms to meet MA matching tests from Stage 2 ensures there is consistency. This approach avoids firms having to allow in their SCR for the additional capital that would be required as a result of the MA matching tests not being met in the starting position for the SCR calculation.
16	Is PRA Test 2 required on the MA as well as PRA Test 1 and 3?	Yes, for scenario Stages 2 to 4, PRA tests 1, 2 and 3 are required to be satisfied. Firms may apply this test proportionately reflecting how they manage meeting this test in practice. Firms are not required to report the MA PRA tests 1, 2 and 3 statistics.
17	Why are different credit spread stresses applied for the	This is required for the correct calculation of the cost of rebalancing the credit quality of a portfolio

	proportion of an asset downgrading?	and so that the BBB cliff impact is reflected in the MA.
18	What is the rationale for not stressing property volatilities?	Typically individual firms have discretion on setting property volatilities and when to make changes. As some firms might not make a change, and for consistency between firms and simplicity, no stress is applied.
19	Why is inflation not being stressed?	Implied inflation volatilities are subject to the volatility stress. The PRA has taken into account the fact that inflation-linked annuities held within an MA portfolio have cash flow matching requirements. This results in firms typically having a lower risk sensitivity than for other risks stressed within LIST. If a severe short-term inflation shock were to be applied then it would not be possible to apply a level stress to nominal and real yield curves. We have no evidence to suggest that a short-term inflation shock would lead to a level shift in market implied inflation curves. The same nominal and real yield curves shocks have been applied for all currencies in order to avoid introducing too much complexity into the scenario. The nominal and real yield curves have a level stress applied, which we believe should be more practical to apply as a stress.
20	Why does a firm not need to assume for Stage 4 the assets held after trading for Stage 3?	The purpose of scenario Stages 3 and 4 is to allow the longevity impact to be separated. Stages 3 and 4 can be seen as alternative ends after one year as a single step after Stage 2. This approach avoids a firm having to assume additional trading costs by treating the longevity stress impact as sequential to the market stress instead of simultaneous with it.
21	An instantaneous longevity shock would not be plausible. The PRA could consider a scenario such as a cure for cancer for Stage 4.	The longevity shock in Stage 4 represents a stepped change to longevity improvement trend rates, the type of which has occurred in the past in response to a period of adverse experience. The Stage 4 assumption is based on 3-5 years of adverse longevity experience prior to the scenario.
22	In reality, firms would adjust their longevity trend assumptions rather than making a percentage adjustment to mortality tables as the PRA proposes to do in its specification for Stage 4.	We agree. The PRA is taking a practical approach for consistency since firms specify their trend assumptions in different ways. The adjustment to mortality tables is intended to produce a similar impact to a change to trend assumptions.

23	Why cannot firms change their internal model longevity risk calibrations in Stage 4?	The longevity risk calibration remains unchanged because: - there would otherwise be loss of consistency between firms; - the standard formula longevity stress would remain unchanged; and - a management action of a change to the internal model longevity risk calibration is likely to be a major model change so not implementable within 12 months.
Scenario application		
24	Is it reasonable to assume no stress to any assumptions not specifically covered in the technical specification?	Broadly yes. However, firms may need to make additional assumptions related to the management actions taken. For example, there may be costs and losses associated with trading management actions in Stages 3 and 4 of the scenario.
25	What is the definition of a sovereign government exposure?	Sovereign government exposures include central bank assets, government-guaranteed assets, and relevant supranational exposures.
26	Can you confirm treatment of sovereigns in the stress?	The instructions have been updated and make clear that no stress is applied to sovereign credit ratings or credit spreads.
27	Do the interest rate and credit spread stresses apply to all currencies?	Yes. The PRA has provided SII technical information for the nine relevant currencies.
28	Can you confirm the treatment of subsidiaries?	Firms should consider the nature of the subsidiary and proportionality within the context of achieving the overall quality standard. Firms can apply the equity stress. However, equally a look-through approach may be more appropriate, for example in the case of a company only holding cash assets and carrying out no other business.
29	Does the PRA intend to specify normal volatility stresses in addition to log-normal volatility stresses?	The PRA has only specified a log-normal volatility stress. Firms may use approximations to convert this into an equivalent normal volatility stress. Given the range of financial derivatives and financial models used by firms it is not possible for PRA to provide equivalent normal volatility stresses covering all of these.
30	Where relevant, do both assets and liabilities need to be revalued in response to the inflation volatility stress?	Yes, within the context of meeting the overall quality standard.

31	For commercial mortgages would the rating downgrade follow the bonds approach or be driven by the property stress?	Commercial mortgages should apply the corporate and other non-sovereign downgrades stress. The commercial property stress may also be relevant in some firms' capital calculations.
32	Does the longevity stress apply to all lines of business (i.e. protection as well) or only to annuity products?	The longevity stress specifically applies to annuities where the payments are dependent on longevity. Some protection products provide whole of life annuity benefits, for example to dependants, where the longevity stress is also applicable. Firms may apply proportionality, subject to satisfying themselves that the overall results standard is met.
33	Can a firm use proxy models or other simplifications in carrying out its calculations in order to reduce the overall burden of the exercise?	The PRA expects that firms will submit results that will go through the level of governance and quality assurance that would be employed in reporting other unaudited public or private external disclosures, for example capital market forward-looking financial statements or presentations on the business model. For instance, proxy models could be used for the exercise, but firms would need to satisfy themselves and the SMF holder signing off the results that the results are credible and appropriate for the tail of the distribution being considered. Use of simplifications may not be appropriate if this would hamper the ability of the firm to provide adequate insights in the RBP report.
34	What approaches to the recalculation of TMTP are permitted?	The PRA has set an overall quality standard for the results including the TMTP. Firms should set out their approach to TMTP recalculation in the RBP report.
35	Do firms need to separately identify and report each and every collateralised counterparty exposure? This would be highly resource intensive.	Firms are requested to provide individual annuity counterparty exposures as at year end 2021 for the opening balance sheet and for scenario Stage 4. For the liquidity resource assessment firms may use simplifications including range estimates. A firm should explain its approach in the RBP report.
36	What management actions can be assumed for with-profits business?	The restrictions on management actions set out apply between the stress and the re-calculation of the balance sheet. For example in Stages 1 and 2 firms cannot assume that they buy or sell assets before recalculating the liability. The LIST management action restrictions do not apply to future management actions within a firm's liability calculations.
37	Can a firm assume management actions that are part of its approved internal	Yes, a firm can take into account those management actions that have been agreed as part of its approved internal model.

	model for the calculation of SCR?	
38	Can a firm use the additional liquidity facilities specified to put cash into the MA portfolio for Stages 1 and 2 rather remove liabilities?	Yes it can. However, it should explain why this was necessary and consistent with its risk management of the MA portfolio. If a firm assumes drawing on additional liquidity facilities beyond the firm's own current facility then it should explain why it was necessary.
39	What actions is a firm allowed to take in order to continue to meet MA tests during the stress scenario? Allowing the MA to vary and absorb the entire stress impact without balance sheet implications does not seem plausible.	The detailed instructions set out a range of management actions permitted that limit the likelihood that liabilities would need to be removed from an MA portfolio. An aim of the scenario is to identify the resilience of firms' solvency and MA portfolios with the permitted management actions, and also the extent that firms would need to use those actions. Firms should outline the permitted management actions that they have assumed would be taken in the RBP report. They should also outline additional management actions beyond those permitted that they would consider taking.
40	Will the PRA provide guidance on the Solvency II balance sheet valuation of ERMs in stress?	No. The PRA expects a firm to use the valuation approach that it has agreed with its auditors for IFRS purposes and apply this for the scenario stresses. The firm should provide a summary of its valuation approach and key assumptions that it has applied for each scenario stage together with the ERM valuation shock applied.
41	What credit spread stresses apply to ERM securitisations? For example, what credit spread stress applies for a downgrade from AAA to A?	The same credit spread stresses apply for ERM securitisations as for other assets. For Stages 2 to 4 an asset that has been downgraded from AAA to A would apply the AAA downgraded asset stress of +145bps plus the difference between the AA downgraded asset stress of +230bps and the AA non-downgraded asset stress of +130bps giving a total stress of +245bps. For other downgrades a similar approach should be applied.
Quantitative reporting templates		
42	Are firms required to provide the full granularity set out for the LIST balance sheet?	The LIST balance sheet has been updated with additional rows added to accommodate entries where, for example, there is less granularity available in firms' asset data for the stresses.

		Firms are requested to add comments to explain their simplifications.
43	Is an MA portfolio a ring-fenced fund in its own right for the quantitative reporting?	No.
Results and basis of preparation report		
44	What will be the format of the RBP report?	Firms should adopt the structure requested in our document setting out the requirements for the RBP report.
45	Will a firm have the chance to run its RBP report past the PRA towards the end of the submission window in order to check whether it meets the PRA's expectations?	No. The PRA will not review RBP reports before submission. However, dialogue channels will remain open during the period before and during the submission window in order to discuss any queries.
46	What is the reason for the RBP report requirement?	The RBP report is an essential component of LIST 2022, requiring firms to explain their results and the basis of preparation to complement the quantitative results. A firm's RBP report may cross-reference other existing documents where appropriate and include them with the submission. The RBP report instructions include guidance on the expected maximum length of response to each part.
47	What stressed capital risk appetite position (for example RAG rating) should firms provide?	The PRA has updated the wording to no longer refer to risk capital status. A firm is requested to provide the stressed capital risk appetite position (for example RAG rating) based on the metric(s) that the firm uses in its business.
48	Are firms required to quantify the impact of each management action recognised?	The PRA does not require quantitative point estimates for each management action. Firms are requested to set out any material management actions recognised and provide commentary on the extent of the impact. Firms should provide an outline of further management actions beyond these.
49	What information is the PRA wanting to capture in the liquidity assessment? It is unclear what uncertainty and range of estimates is being requested.	The liquidity risk assessment will support the PRA's supervisory work to understand firms' liquidity risk exposure, liquidity facilities and liquidity risk management. The PRA wants an assessment of whether a firm can meet collateral calls in Stages 1 in 2 without trading assets including liquidity funds.

		Firm are to assess whether collateral calls can be met by drawing cash from pre-arranged liquidity facilities; if so a range estimate is requested along with details of those facilities. If further cash would be required beyond pre-arranged liquidity facilities then a range estimate should be provided for this further need. Firms should explain their choice of range estimate width, for example by relating this to the additional effort that would be required to reduce the range.
50	Why are firms required to assess their liquidity position and quality of assets available for collateralisation?	The scenario is looking to identify whether firms would need to trade assets or call on their liquidity facilities in stress in order to satisfy their collateralisation requirements. The scenario is providing an assessment relative to PRA's Fundamental Rule 4, which requires a firm at all times to maintain adequate financial resources.
51	What does a firm do if it does not have adequate assets required to meet a collateralisation call?	A firm should identify this issue and provide an analysis of the shortfall and identify the management actions that it generally aims to take in the RBP report. A firm should assume for the purposes of the stress that the contractual collateralisation requirements can, if necessary, be met for Stages 1 and 2 by calling on additional liquidity facilities beyond the firm's own current facility if its own is insufficient. For Stages 3 and 4 a firm should reflect the management actions that it would plan to take within 12 months of the initial market shock and as a minimum trade assets so that it at most calls only on its own current liquidity facility.

Annex 2 Institutions invited to take part

Large UK life insurers

- Aviva International Insurance Limited
- Aviva Life & Pensions UK Limited
- Canada Life Limited
- Just Retirement Limited
- Legal & General Assurance Society Limited
- Liverpool Victoria Financial Services Limited
- The National Farmers Union Mutual Insurance Society Limited
- Partnership Life Assurance Company Limited
- Pension Insurance Corporation plc
- Phoenix Life Assurance Limited
- Phoenix Life Limited
- The Prudential Assurance Company Limited
- ReAssure Limited
- Rothesay Life plc
- The Royal London Mutual Insurance Society Limited
- Scottish Widows Limited
- Standard Life Assurance Limited

Annex 3 Abbreviations

CQS	Credit Quality Step
ERM(s)	Equity Release Mortgage(s)
EUR	Euro
EVT	Effective Value Test
FRN	Firm Reference Number
GBP	Great Britain Pound
IM	Internal Model
IMAP	Internal Model Approval Process
IST	Insurance Stress Test
LEI	Legal Entity Identifier
LIST	Life Insurance Stress Test
LLP	Last Liquid Point
MA	Matching Adjustment
MCR	Minimum Capital Requirement
OF	Own Funds
PRA	Prudential Regulation Authority
QRT(s)	Quantitative Reporting Template(s)
RBP	Results and Basis of Preparation
SCR	Solvency Capital Requirement
SMF	Senior Management Function
SII	Solvency II
TMTP	Transitional Measures on Technical Provisions
TP	Technical Provisions
VA	Volatility Adjustment
USD	United States Dollar