2021 Stress Test exercise

Stakeholders and Participants meeting,
Teleconference, 18 March 2021

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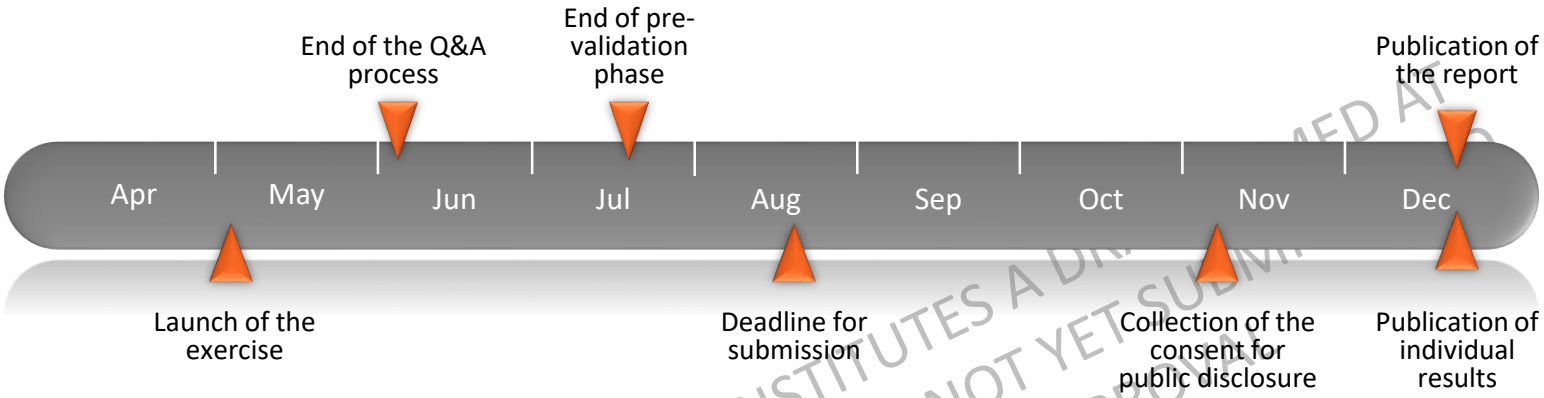
Agenda

	10:15 – 10:30	Connection check
1.	10:30 -10:45	Welcome & introductory remarks
2.	10:45 – 10:55	Stress Test exercise - Overview on the process and timeline
3.	10:55 – 11:10	Methodological approach for 2021 exercise • Overview • Focus on liquidity scoping
4	11:10 – 11:40	Scenario • Summary of market shocks • Focus on transition matrices for corporate bonds • Focus on insurance specific shocks
5	11:40 – 12:00	Templates • Capital templates • Liquidity templates
	12:00 – 12:15	Break
6.	12:15– 13:25	Discussion on the open points
7.	13:25 - 13:30	Concluding remarks
	13:30	End of workshop

Overview of the process and timeline

Introduction
Timeline



- Milestones:
  - Launch of the exercise: **beginning May 2021**
  - Deadline for submission from ST participants to NCAs: **mid-August 2021**
  - Collection of the consent for public disclosure: **mid-November 2021**
  - Publication of the results: **mid/end-December 2021**
- Time-frames:
  - Q&A: **4 weeks**
  - Pre-validation: **10 weeks**
  - Calculation: **14 weeks**

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Methodological approach

overview and focus on scope liquidity component

Introduction
Key elements

- **No pass-fail exercise**
- One scenario: **low-for-long** in an adverse **COVID** aftermath
- Two components
  - **capital** component
  - **liquidity** component
- **Objective**: **microprudential** with a **macroprudential** element
  - **Fixed balance sheet** (without reactive management actions)
  - **Constrained balance sheet** (with (controlled)reactive management actions)
- Data collection
  - Capital → consistent with regular **QRT reporting**
  - Liquidity → **ad-hoc**
- Disclosure
  - **Aggregated** → Stress Test report
  - **Individual** → capital component, subset of balance sheet indicators, **upon consent**

Scope liquidity component

Liquidity component targets the same **entities as the capital component**, however, entities shall approach the liquidity component based on the in-force liquidity management practices

Based on principle "**assess the risk where it is managed**" entities should be clustered in the following two buckets:

	Centrally managed liquidity: cash-pooling or a contractual intra-group agreement	Liquidity managed on a solo-level (or non-binding agreement)
Scope	Assessment at group level and the post stress position reported at group consolidated level	Assessment conducted at solo level and limited to those entities in the perimeter that are more relevant by a liquidity risk perspective Undertakings that are outside the scope of European insurance supervision (non-insurance entities and solos outside EEA) are excluded

For those groups using an hybrid approach (blended approach) the principle of substance over form should be applied when considering the bucketing

Bucketing of the entities: Results

Before the launch of the exercise as a joint Participant / NCA / PG effort

1. Participating groups declare to which bucket they belong. Groups provide a rationale/evidence for this choice
2. The homogeneity of the classification of the participants is granted by the interaction between the PG and the NCAs

6 groups manage liquidity centrally

1 group manages liquidity on a solo level except for a sub-group

37 groups manage liquidity on a solo level

Liquidity managed on a solo-level
Solo selection

Criteria	PG defines criteria These criteria should be considered as guidelines, not as a quantitative criteria	Consider **only EAA insurance solos** The selected solos **should respect a total assets coverage criterion**: (total assets of solos selected / total assets of insurance EEA solos belonging to the group) > 80% Additional **quali/quantitative risk-based criteria should be considered** in the selection of the solos (e.g. liquidity of the assets and of the liabilities)
Process	Joint Participant / NCAs / PG effort	Participants submit to the NCAs a list of solos selected according to a set of materiality / relevance criteria and provide rationales for their selection The final lists will be eventually discussed at PG level

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Scenarios

Market shocks
Key highlights

- **Market shocks** are assumed to represent **one-off**, **instantaneous** and **simultaneous shifts** in asset prices relative to their end-2020 levels
- **Second level** or contagion **effects** are **out of scope**
- Market shocks are **common** for both **capital** and **liquidity** component
- **Market shocks closely follow** the market shocks in the context of **2018 ST exercise** and the **stress test methodological paper, but** potentially **with** some **additional elements** (e.g. transition matrices for corporate bonds)
- List of **risk drivers**:
  - Swap rates
  - Sovereign, corporate, covered bonds
  - Equity and real estate (commercial and residential)
  - Residential mortgage-backed securities
  - Other assets: Private equity, Hedge funds, REITs, Commodities

Transition Matrix

- Shocks to corporate bonds provided in the Technical Information are twofold:
  - Depending on the geographical area and rating of the exposures, the portfolios are assumed to be downgraded/upgraded according to the transition matrices provided in the technical information
  - Subsequently, the resulting holding allocations are further stressed to account for yield increase
- Application:
  - Step 1: transition of the bonds (no revaluation of the portfolio)
  - Step 2: yield shock in line with the new rating
- For discussion:
  - Transition granularly applied title by title (e.g. identification of the security to be downgraded) vs transition applied on the value of the whole, portfolio
  - How to select the bonds to be downgraded? → e.g. keep the duration of the portfolio in pre-and post transition constant
  - How to treat the impact on the SCR

Do you have any feedback on the implementation of the rating transitions in the context of this exercise (e.g. approximations needed to build the post-transition portfolio and the subsequent application of shocks to yields)?

Insurance specific shocks
Key highlights

	Life	Health similar to life	Health similar to non-life	Non-life other than health
Mass Lapse	$X_{C,L}$			
Mortality	$X_{C,L}$	$X_{C,L}$		
Pandemic morbidity and increase in cost of claims		$X_{C,L}$	$X_{C,L}$	$X_{C,L}$
Increase in frequency		X_L	X_L	X_L
Increase in severity		$X_{C,L}$	$X_{C,L}$	$X_{C,L}$
Reinsurance in-flows	X_L	X_L	X_L	X_L
Reduction in written premia	X_L	X_L	X_L	X_L

C=capital component; L=liquidity component

- The exercise encompasses a set of **insurance shocks** to be applied to specific lines
- Market shocks are **common** for both **capital** and **liquidity** component, but the **application** of the shocks on the capital and liquidity **differs**
- Shocks should be applied following a specific sequence when calculating their post-stress balance sheet and solvency position in the capital component:
  - Step 1. Market shocks;
  - Step 2. Application of insurance specific shocks

*Reduction in written premium and the shock in the reinsurance in-flows is applied only for liquidity

Insurance specific shocks
Details 1/6 – Mass lapse

Type of product	Instantaneous discontinuance
Term insurance	XX%
Endowments	XX%
Annuities in deferral phase	-
Annuities in pay-out phase	-
Pure unit-linked contracts (without financial guarantees)	XX%
Unit-linked contracts with financial guarantees	XX%
Disability	XX%
Health	-

- The shock reflects the **adverse macroeconomic environment impact on aggregate demand**
- **Sudden non-permanent discontinuance** of the in force insurance policies, **no mitigation effects** e.g. temporary suspension of redemptions rights, "lapse" refers to **any kind of policyholder lapse options**

Capital component

- The **impact of the instantaneous lapse shock** shall be **reflected only in the technical provisions with no impact on the assets side**
- The shock is inspired by article 142 of the delegated acts
- (Partial)internal model, USP, standard formula users shall apply this approach for the aim of comparability of the results in the stress test exercise

Liquidity component

- **All payments** resulting from the discontinuance of the policies are **paid within the 90 days**
- $Surrender_{post-stress} = max(Surrender_{Actual}, Surender_{post-stress,projected})$
- **No changes** to actual claims, actual premia, and actual reinsurance flows should be applied.
- Shock to lapse should be applied only to the in-force portfolio.

Insurance specific shocks
Details 2/6 – Mortality

- In the absence of a generic lockdown, **more policyholders than anticipated** are facing the risk of **mortality**, in particular, **peaking** during the first **three months following the reference date**
- It is **applied** to all **Life** and **Health SLT** lines of business
- The **annual mortality rates** shall be increased by $X\%$ using the formula $q_x * (1 + X\%) = q'_x$, where q_x is the annual baseline mortality rate for age x
- The **increase** of $q'_x - q_x$ shall be applied **instantaneously** to the mortality rates (expressed as percentages) which are used in the calculation of technical provisions to reflect the mortality experience in the following 12 months
- **No mitigation effects** stemming from uncertainty regarding exclusion clauses

Capital component

- The **impact of the instantaneous mortality shock** shall be **reflected only in the technical provisions with no impact on the assets side**
- The shock is inspired by article 143 of the delegated acts
- (Partial)internal model, USP, standard formula users shall apply this approach for the aim of comparability of the results in the stress test exercise

Liquidity component

- The **projection of the outflows** shall take into **account** the **annual increase/decrease** in **claims** emerging **from the application of the mortality shocks** to the in-force portfolio
- $Claims^{k}_{post-stress} = max(Claims^{k}_{Actual}, Claims^{k}_{post-stress,projected})$
- The annual increase/decrease is **assumed to be concentrated in the 90 days** of the time horizon
- **No changes** to surrenders, actual premia, and actual reinsurance flows should be applied

*k = life excluding UL/IL and MA, UL/IL and MA

Insurance specific shocks
Details 3/6 – Non Life cost of claims

- The **distressed economic situation** is translated into an **increase of the frequency** and of the **severity** of the claims
- **The non-life business lines more impacted by the assumptions contained in the narrative** are supposed to experience an increase in the severity (claims inflation) due, for example, to **increased litigation costs**, and an increase in frequency

Line of Business[38]	Shock to frequency	Shock to severity (claims inflation)
Direct Business, including accepted proportional reinsurance		
- Medical expense insurance	XX%	Y%
- Income protection insurance	XX%	Y%
- General liability insurance	XX%	Y%
- Credit and suretyship insurance	XX%	Y%
- Legal expenses insurance	XX%	Y%
- Miscellaneous financial loss	XX%	Y%
Accepted non-proportional reinsurance		
- Non-proportional health reinsurance (insurance obligations included only in LoB 1 and 2)[39]	XX%	Y%
- Non-proportional casualty reinsurance (insurance obligations included only in LoB 8)	XX%	Y%
- Non-proportional property reinsurance (insurance obligations included only in LoBs 9, 10 and 12)	XX%	Y%

Capital component

- The **impact of the shocks to severity** should be fully **reflected into the technical provisions by revaluating the BE** (both Claims provisions and Premium provisions) on the **basis of an increase in claims inflation**
- Claim inflation at time t is $i_t^S = (1+s)i_t^B$
- **Shock to frequency** should **not** be **applied** in the **capital component**

Liquidity component

- The same **shock in severity and an additional shock to frequency** shall be applied
- **Claims incurred up to 2020 year-end ->** only **severity shock** shall be applied
- **Claims incurred afterwards -> both** frequency and severity **shocks** shall be **applied**
- **No changes** in the reinsurance flows should be applied

Insurance specific shocks
Details 4/6 – Pandemic morbidity

- The scenario assumes an **instantaneous increase** in **medical expenses** and **income protection** claims due to Covid-19 and the narrative of the scenario for lack of generalised lockdown
- It is **applied** to all in force **life** and **non-life** insurances **offering such health coverages**
- It is supposed to impact the **frequency and the severity of the related claims,** hence the shocks will be embedded in the shocks prescribed in the increase of cost of claims
- Therefore, **life business offering health coverages** should be shocked following the **same approach proposed to the non-life** applying the shocks provided to medical expenses and income protection insurance line of business

Health Non-SLT

Line of Business[38]	Shock to frequency	Shock to severity (claims inflation)
Direct Business, including accepted proportional reinsurance		
- Medical expense insurance	XX%	Y%
- Income protection insurance	XX%	Y%
- General liability insurance	XX%	Y%
- Credit and suretyship insurance	XX%	Y%
- Legal expenses insurance	XX%	Y%
- Miscellaneous financial loss	XX%	Y%
Accepted non-proportional reinsurance		
- Non-proportional health reinsurance (insurance obligations included only in LoB 1 and 2)[39]	XX%	Y%
- Non-proportional casualty reinsurance (insurance obligations included only in LoB 8)	XX%	Y%
- Non-proportional property reinsurance (insurance obligations included only in LoBs 9, 10 and 12)	XX%	Y%

Health SLT: same application of the shock adjusted to life techniques

Q1: Do you envisage issues in the calculation of the post-stress TP of the health similar to life based on the same treatment prescribed for the health similar to non-life products?

Q2: Are additional specifications needed for the Health similar to life products?

Insurance specific shocks
Details 5/6 – Reinsurance in-flows

- The **general economic environment** and its **impact on corporate sector** is also reflected to **deterioration** of the **credit worthiness of reinsurers**
- In order to **reflect this effect on the flows of insurers**, the amount of actual reinsurance in-flows shall be shocked based on a **flat haircut** of XX%

Capital component	Liquidity component
• The **shock to reinsurance recoverable should not be applied** in the calculation of the post-stress balance sheet and solvency position, given its non-material impact	• The **prescribed haircut** shall be applied to the **actual in-flows** (e.g. reinsurers' share in sum of claims paid, reinsurers' share in sum of expenses paid)… • …**notwithstanding whether these** in-flows **stem from treaties in place at the reference date or purchased afterwards** • For example, assuming a relevant actual inflow of 100 the post stress inflow should be calculated as 100*(1-XX%)

Insurance specific shocks
Details 6/6 – Written premia

- The **scenario assumes a decrease** by the YY% of the **total cash-in premiums** with respect to the **actual baseline figures**
- This **reduction affects all non-mandatory** in-force and new business (both life and non-life)

Capital component

- The reduction of premia due to the lapse and mortality shocks is already captured in the recalculation of the life technical provisions
- The shock related to the new business is marginally captured by the Solvency II framework
- Therefore, for the sake of simplicity and to reduce the burden of the exercise, **the impact of the shock on the capital component is neglected**

Liquidity component

- The **actual cash-in flows related to premiums** observed in the 90 days should be **recalculated reflecting the decrease of the written premia** to be received in the 90-day time horizon
- For example, assuming a relevant actual inflow of 100 the post stress inflow should be calculated as 100*(1-YY%) where YY% represent the reduction in written premia

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Templates

Templates & Questionnaires

- Templates are split according to the **purpose** of the information collected into **reporting and validation**
- The information collected in the reporting templates will be **published in the report** based on aggregated data covering both the capital and the liquidity component according to the disclosure chapter
- For the purpose of having a **sound understanding** of the stress test, results and the allowance for a proper data quality assurance process, participating entities are requested to submit additional information (validation templates)
- The reporting templates refer to the:
  - **Capital** component
  - **Liquidity** component

Capital component
Template

- The set of templates to report the results under baseline and stressed scenarios are **broadly based on the Solvency II QRT** reporting. Guidance on the content of the templates can be retrieved from the Supervisory Reporting Annex II
- The reporting templates are structured in three sections:
  - **Baseline** scenario (0)
  - **Stress** scenario **without reactive management actions** (FBS)
  - **Stress** scenario **with reactive management actions** (CBS)

Description	Baseline (0)	Scenario without reactive management actions - Fixed Balance Sheet (FBS)	Scenario with reactive management actions - Constrained Balance Sheet (CBS)
General information	Participant		
Model and Simplification applied in the calculation under stressed scenarios	Gen		
Indicators	Indicators		
Balance sheet reporting template as per QRT data for Groups	0.BS	FBS.BS	CBS.BS
Impact of long term guarantees measures and transitionals as per QRT data for Groups	0.LTG	FBS.LTG	CBS.LTG
Own funds as per QRT data for Groups	0.OF	FBS.OF	CBS.OF
Calculation of Solvency Capital Requirement as per QRT data for Groups	0.SCR.SF	FBS.SCR.SF	CBS.SCR.SF
Solvency Capital Requirement - for groups using the standard formula and partial internal model as per QRT data for Groups	0.SCR.PIM	FBS.SCR.PIM	CBS.SCR.PIM
Solvency Capital Requirement - for groups on Full Internal Models as per QRT data for Groups	0.SCR.FIM	FBS.SCR.FIM	CBS.SCR.FIM
Asset characteristics	0.Assets	FBS.Assets	CBS.Assets
Liabilities description	0.Liabilities.Char	FBS.Liabilities.Char	CBS.Liabilities.Char
Miscellaneous	0.Misc	FBS.Misc	CBS.Misc

Upon request of local supervisors participants might be requested to submit the same information against a **shocked level of the UFR**
This ancillary information will be **treated at jurisdiction level**, and will not be included in the EIOPA individual and aggregated reporting

Capital component
Questionnaire

- Aim: is to provide **additional insights on the drivers of the impact of the stress test** and should address the 'story behind the figures' that have been submitted by the group.
- It covers qualitative and quantitative information regarding the **process** and post stress impact on **the key metrics** under the **fixed balance sheet approach and the constrained balance sheet approach**:

  I. **Simplifications and approximations**: focuses on information regarding potential simplifications applied in the calculation of the post-stress position e.g. deviations from regular reporting, perimeter of application of the shocks

  II. **Reactive management actions**: collects information on the identification and application of the reactive management actions enforced against the prescribed scenario

  III. **Stress scenario with and without reactive management actions**: collects explanations on the impact of the stress on the assets over liabilities, eligible OF to meet the group SCR and group SCR including an estimation of the marginal impact of the implementation of the enforced reactive management action

  IV. **Other**: collects information on the internal validation process

Liquidity component
Templates & Questionnaires

- The **reporting templates** are structured in three sections:
  - **Flows** template (baseline and stressed scenarios results)
  - **Stocks** template (baseline and stressed scenarios results)
  - **Questionnaire** template for liquidity component

- Templates for reporting and validation purposes
  - The **flows template** collects a set of information on the net cash position of the undertakings over 90-day time horizon starting from QRT S.05.01 focusing on the inflows and outflows stemming from:
    - life business (excluding UL/IL business);
    - UL/IL business;
    - MA and ring fenced portfolios;
    - non-life business;
    - investments;
    - other flows.
  - The **stock templates** are based on the QRT S.06.02 and S.03.01.01.01 and contain:
    - detailed information on the assets allocation for life, non-life, MA / ring fenced portfolios and UL/IL business
    - A breakdown of the life best estimates into traditional life, UL/IL, MA and ring-fenced funds

Are you able to provide the breakdown of assets to support life business and non-life business?

Liquidity component
Questionnaire

- The **aim of the questionnaire** is to collect information on the reactive management actions taken by insurers against the prescribed liquidity shocks with specific reference to:
  - disinvestment strategy
  - Other sources of liquidity
  - Reactive management actions
  - cash management
  - liquidity governance
  - simplifications
- Additionally, information on the existence (plus short description) of a **liquidity risk management plan** and a **contingency funding plan** and the inclusion of liquidity stress test in the ORSA report

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Discussion

Questions

Do you envisage issues in the calculation of the post-stress TP of the health similar to life based on the same treatment prescribed for the health similar to non-life products?

- Health similar to life products are hardly comparable to health similar to non-life products. Stresses affect portfolios of such products differently. This should be considered
- Health similar to life is being calculated using different techniques than Health similar t non-life. The same type of stresses cannot apply.
- Applying same treatment to health SLT as health NSLT is not in line with the group Internal Model as we follow a Replicating Portfolio approach to derive post stress TP to health SLT whereas non-life products have a different approach
- We suggest to allow the use of simplification and approximations to avoid calculation burden.
- NO

Are additional specifications needed for the Health similar to life products?

- Given the specifications concerning health similar to life insurance in figure 6, there might be no need to have additional specifications assuming those are related shocks.
- No further guidance is needed.
- Generally additional specifications would be required as in the Group Internal Model we do not distinguish between health SLT and life for several non-market risk categories (e.g. lapse, longevity, mortality, morbidity). Therefore, for the scope of this exercise a simplified assumption has to be made for the application of the morbidity and mortality shocks.
- We suggest to allow the use of simplification and approximations to avoid calculation burden.
- NO

Questions

Are you able to provide the breakdown of assets to support life business and non-life business?
• In line with good ALM practices, we would not expect the breakdown of the assets into life and non-life business to be an issue. Principle of compartmenting (specialisation) life/non-life/health is prescribed in Germany. This allows such a breakdown. • Companies should be in a position to provide info split between life & non-life. • Yes (2 answers) • No (3 answers) • No, a specific breakdown of assets is not possible (i.e we cannot say Bond A belongs to life, Bond B belongs to non-life) • The requested breakdown is not legally required by Solvency II and ignores the business of reinsurers. Allocating assets to a certain business ignores one of the key transformational services of a reinsurer, namely balancing investment risks with insurance risks. Reinsurers may conduct both non-life reinsurance and life reinsurance in one entity where primary insurers may not and have a separate entity for life and non-life. It would be beneficial if EIOPA removed the requirement for reinsurers since reporting a breakdown would be massively arbitrary.

Remarks

Market shocks	• UFR: Should we recalculate the baseline against the new level of the UFR (3.60%) • UFR: How the request of the additional simulation based on a different UFR fits in the exercise? • Shocks to loans and mortgages: it is proposed to use covered bonds rather than RMBS • CRD entities and other participation: the treatment with the shocks to equity is not deemed appropriate (e.g. CRD are subject to regulatory regimes) • Application of the transition matrices is unclear
Templates	• Will there be a request for additional data for validation purposes? • Some data were requested and not used in 2018. The same request appears in 2021
Management actions	• Should we run a full recalculation of the post stress position with management actions or simplifications are allowed? • Is it compulsory to provide the post-stress scenario with reactive management actions? • How would we treat dividend pay-out and potential restriction imposed/advised by supervisors?

Remarks

Liquidity	• Are the haircuts kept constant in the stressed scenario? • Why are securities issued by financials and affiliates excluded? • The calibration of the haircuts should reflect the time horizon of the assessment • Please specify the concept of "new business" • Why reinsurance flows are kept constant against other insurance shocks? • What is the rational of the concept of "max" between actual and post-stress values?
Insurance specific shocks	• Sequence of application of the insurance specific shocks: does it matter? • Rationale of the selection of the line of business for the application of the shocks against the materialised effects of the pandemic