

# **SOLVENCY & LIQUIDITY STRESS TEST SELF-ASSESSMENT TOOLS**

*Scorecard approach*

# AGENDA

1. Objectives
2. Process overview
3. Self-assessment
4. Aggregation of results



# SOLVENCY & LIQUIDITY STRESS TESTS SELF-ASSESSMENT TOOLS

Leveraging on its experience and in line with market practices, Avantage Reply has developed Solvency & Liquidity Stress Test self-assessments tools.

Interactive and practical, these self-assessment tools cover the key building blocks of Solvency & Liquidity Stress test frameworks and provide an overview that will help benchmark the internal approaches in relation to supervisory expectations and market best practices.

The integration Solvency & Liquidity Stress Test at the highest level of the organization is key for a proper use of both processes into the decision-making process.



**Harmonized framework for both self-assessment tools**



**Collection of qualitative statements for each question**



**Combined quantitative and qualitative self rating at a granular and aggregated level**



**Graphical presentation of the results of both self-assessment**



# OBJECTIVES AND PRINCIPLES

In order to help financial institutions to identify **key weaknesses and areas of improvements** of their Solvency & Liquidity Stress Test frameworks but also to meet their supervisory requirements, these self-assessments aim to:

1

Ensure that institutions have adequate **Stress Testing Frameworks** with adequate governance, clearly defined objectives, and validated methodologies and data infrastructure that meets the bank's needs

2

Ensure a **proper integration of both Solvency & Liquidity Stress Test frameworks** into strategic planning and decision-making processes

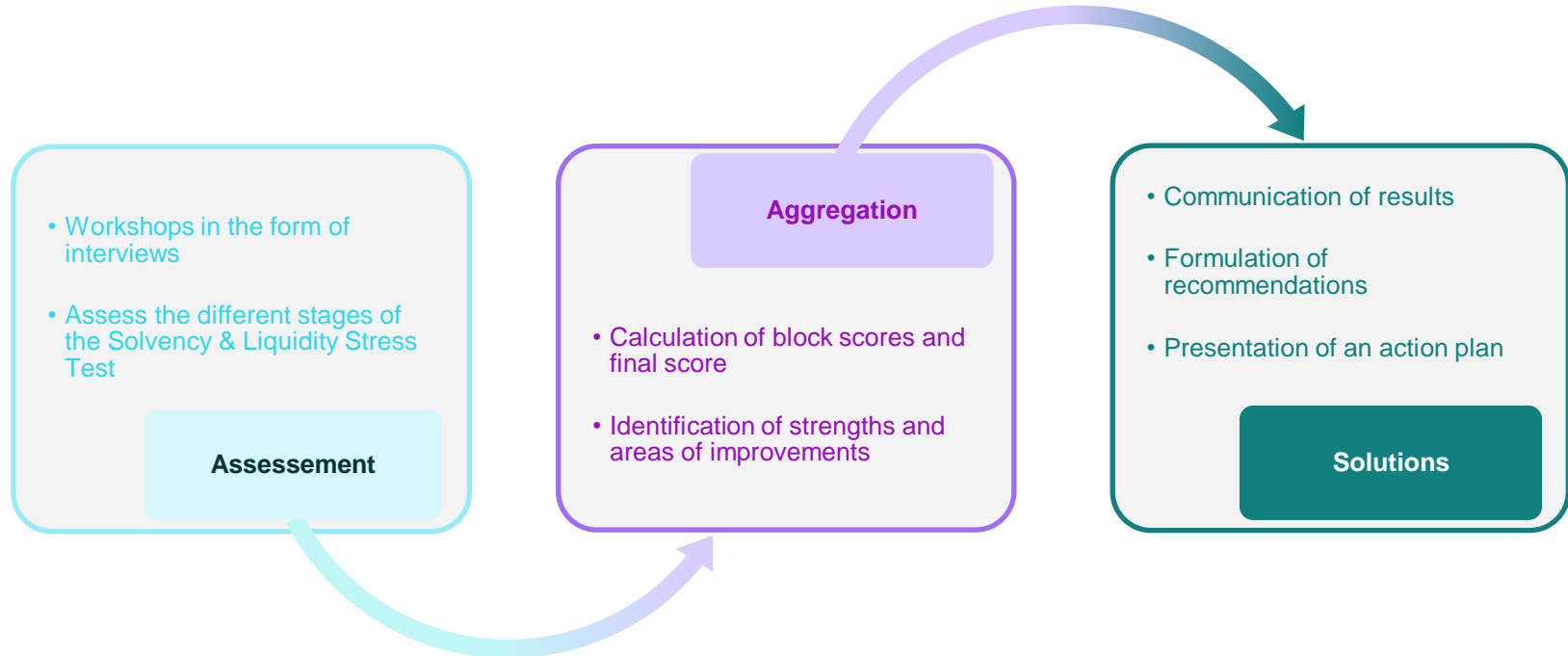
3

Provide financial institutions the ability to **conduct self-assessments through a scorecard approach on their current Solvency & Liquidity Stress Test frameworks** in order to identify areas of improvements and to implement remediation actions for their future exercises



# PROCESS OVERVIEW

- The exercise is articulated in **three consecutive interdependent phases** based in supervisory requirements, benchmarks and best practices.
- **The process is iterative** and allows an assessment at a specific level as well as at a broader level composed of homogeneous areas.
- **Adjusted results and recommendations** are obtained through the end of the outcomes of the process.



# PREPARATION AND APPROACH

Step 1	Workshops - Interviews
Step 2	Score aggregation - adjustment
Step 3	Recommendations – action plan



Informal iterations with the client and the key stakeholders of Solvency & Liquidity Stress Test processes for the collection of relevant informations and the targeted materials to conduct the self assessment.



Estimated workload and number of workshops required



Workshops wave (tool implementation)



# SCORING APPROACH

Step 1	Workshops - Interviews
Step 2	Score aggregation - adjustment
Step 3	Recommendations – action plan

- > Questionnaires address **a number of relevant questions per key building block**
- > Hereafter are described **the macro areas for each self-assessment**
- > In each process, an assessment is conducted through **a score per macro areas to calculate an average score of the questions in that category**

## 1. Strategy

*Integration of solvency and liquidity stress tests into strategic planning*

## 2. Governance

Solvency and Liquidity Stress testing governance frameworks

## 3. Process and Controls

Solvency and Liquidity stress testing processes and controls frameworks

## 4. Methodology and measures

Solvency and Liquidity Stress testing models and measures for internal steering and risk management

## 5. Data & Infrastructure

Solvency and Liquidity stress testing forecasting capabilities and data availability

## 6. Publication and communication

Solvency and Liquidity stress tests outcomes disclosure and communication framework

## 7. Integration and linkage with internal processes

Proper integration of Solvency and Liquidity stress testing into management and iterations with key internal processes



# KEY OUTCOMES AND SCORING PER BLOCK

Step 1	Workshops - Interviews
Step 2	Score aggregation - adjustment
Step 3	Recommendations – action plan



- > Answers verification and certification
- > Adjustment of scores if necessary, based on comments received, expert judgment, or the size/business model of the institution.
- > Formalization of scores and their presentation - Demonstration of weaknesses - Drafting of recommendations

- > Four possible answers
- > Scores ranging from 1 to 4 for each answer.

Possible answers	Score
No/Na - Preliminary state	1
Not really - Should be improved / completed	2
Yes - Could be improved	3
Yes - Fully compliant / satisfactory	4

## > Example of a sample of questions of Solvency Stress Test questionnaire

#	Category	#	Questions
1	Program	1	Is there a stress test programme defining the type of stress test to be performed within the bank and specifying all its characteristics?
		2	Does the stress test programme clearly define the objectives of the stress test?
2	Governance	8	Is the management body directly responsible for the stress tests programme?
		9	Does the management body approve and validate the objectives of the stress test and ensure proper implementation?
3	Process and Controls	16	Are Stress Test Processes and methodologies defined in a dedicated documentation?
		17	Are there any Stress Test control mechanisms defined in the institution's policies?
4	Methodology and measure	21	Are internal models developed in accordance with the bank's specifications?
5	Data infrastructure	22	Are stress scenarios validated by independent economists?
		31	Is there a dedicated Stress Test tool / system?
6	Publication and Communication	32	Is the stress test system adaptable enough to perform ad hoc stress tests taking into account specific situations such as COVID / Brexit etc ?
		39	At which frequency does the bank publicly disclose information on the soundness of its risk management framework with regards to Stress Test?
		40	Can reporting teams reliably produce ad hoc Stress Test reports for specific situations like COVID /Brexit etc?





# HEATMAP AND ACTION PLAN

Step 1	Workshops - Interviews
Step 2	Score aggregation – adjustment
<b>Step 3</b>	<b>Recommendations – action plan</b>

## Heatmap

The output of **scores for each main area questions** are aggregated and **presented through a heatmap** to:

- > Help institution have a brief overview on **the maturity of current Solvency & Liquidity Stress Test frameworks**
- > Highlighting **areas of weaknesses**

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## Action plan

- > **Presentation of the outcomes**
  - > Score per building blocks
  - > Entity score presentation
  - > Main conclusions
- > Recommendations summary presentation and analysis
- > **Detailed action plan** articulated through streams to improve Solvency & Liquidity Stress Test frameworks efficiency, integration and compliance

## Example of Solvency Stress Test Score heatmap



# OUR SERVICE OFFERING

Expert and methodological support in ALM, Finance and Risk around strategic risk management and management processes, governance of Finance and Risk functions, risk modeling and scarce resources (capital, liquidity) and stress tests



Finance Risk

- Our teams support CROs and CFOs from the design of target systems to operational implementation at Group or entity level.
- Our missions last from 1 month to 1 year. On average, they last 6 months.

	Strategy & Governance	Steering	Modeling	Regulatory
Finance	<ul style="list-style-type: none"> <li>BMA</li> <li>Capital management framework</li> <li>P&amp;L and Solvency stress testing framework</li> </ul>	<ul style="list-style-type: none"> <li>ICAAP</li> <li>Capital allocation policy</li> <li>Resolution</li> </ul>	<ul style="list-style-type: none"> <li>Capital modeling / planning</li> <li>Accounting valuation / PVA</li> <li>P&amp;L and Solvency stress tests</li> </ul>	<ul style="list-style-type: none"> <li>Regulatory watch</li> <li>Regulatory strategy</li> <li>Remediation</li> <li>Project management</li> <li>Impact analysis on business processes</li> <li>Quantitative study</li> </ul> <ul style="list-style-type: none"> <li>SREP/TRIM</li> <li>BRRD</li> <li>CRR/CRD</li> <li>Guidelines EBA/BCE...</li> <li>Others</li> </ul>
Risk	<ul style="list-style-type: none"> <li>Risk governance</li> <li>Model risk management framework</li> <li>Regulatory strategy</li> </ul>	<ul style="list-style-type: none"> <li>Risk material identification</li> <li>Risk appetite</li> <li>Recovery plan</li> </ul>	<ul style="list-style-type: none"> <li>Valuation or Risk models</li> <li>Tiering and scoring of models</li> <li>Pillar 2 models and stress tests by type of risk</li> </ul>	
ALM	<ul style="list-style-type: none"> <li>ALM governance</li> <li>ALM strategy and FTP</li> <li>ALM stress testing framework</li> </ul>	<ul style="list-style-type: none"> <li>ILAAP</li> <li>IRRBB</li> <li>Contingency funding plan</li> </ul>	<ul style="list-style-type: none"> <li>ALM risk measures</li> <li>ALM Models</li> <li>ALM stress tests</li> </ul>	
Climat	<ul style="list-style-type: none"> <li>Risk and opportunities</li> <li>Portfolio analysis</li> <li>Climate risk management governance</li> </ul>	<ul style="list-style-type: none"> <li>Climate risk cartography</li> <li>Green weighting factor</li> <li>Scorecard</li> </ul>	<ul style="list-style-type: none"> <li>Adjusted credit risk models</li> <li>Climate risk stress tests</li> </ul>	



# Contacts



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