General Comments:		
General Comments:		
Comments	REF	CBB Response
<u>A Bank:</u> <u>On the frequency of Stress Testing and April 30<sup>th</sup> date:</u> We strongly recommend that the frequency of Stress Testing should be once per annum aligned with the ICAAP, rather than Bi-annual. We also suggest that the deadline to shift to end of June of each year, to coincide with the ICAAP submission, given that our audited financials come out February end / early March and then requires to be presented to the Board for its review and approval. As such, we would need sufficient time to complete the ICAAP exercise together with stress testing.	GR-1	<ul> <li>a. Stress-testing is a forward looking exercise which must be conducted on semi-annual basis at least in order for the exercise to be of value from a risk management perspective in the dynamic marketplace.</li> <li>b. Stress-testing reporting should coincide with the ICAAP reporting (in case ICAAP reporting is changed)</li> </ul>
A Bank: Use of Economic Capital models: We suggest that the use of Economic Capital models should be a later stage requirement given the complexity of the models and scarcity of data related to volatility, correlation etc. or alternatively this should be left to a bank's discretion to either use regulatory capital or both.	GR-2	The intention was not to implicitly go outside the standardized approach. Banks have a variety of economic capital model approaches to choose from. Banks should apply an approach that fits its size, complexity and risk profile.
A Bank: Other Material Risk: Our understanding is that "Other Material Risks" comprises Risks not captured under Pillar I (i.e. Pillar II Risks), such as Concentration Risk, Reputational Risk, Strategic Risk, Legal Risk etc. Kindly confirm the same.	GR-3	Yes
<u>A Bank:</u> The timeline of reporting to the CBB is tight when taking into consideration other reporting requirements falling in the same period. Suggest that this be shifted to May/Nov. Deadline of May/Nov will provide sufficient time for completing scenario analysis and getting feedback from respective departments keeping in view other quarterly deadlines (like PIR & audit) in April and October.	GR-4	Refer to GR-1
An Audit Firm: In regard to stress testing, we note that regulation internationally is moving towards more prescriptive approaches for ease of comparison across banks and to promote a level playing field. This approach also allows to narrow the interpretation of the requirements and avoid potential incoherence of results	GR-5	The Stress Testing Module describes the CBB's approach to assessing the adequacy of banks' stress testing framework and practices. Specific stress-testing scenarios are

across the spectrum of banks.		covered under each module respectively (including IRRBB standardized approach).
To that effect, providing more prescriptive instructions (e.g. macro-economic variables, financial and non-financial assets haircuts floors and caps, B/S contraction, etc.), could also be a good way to limit the range of such interpretations. We are including in appendix an example of constraints currently used in the 2018 European Banking Authority (EBA) stress test exercise that the CBB may wish to consider.		(more and a summarial approxim).
We also believe that the prescribed scenarios will allow for a common analytical framework to consistently compare and assess the resilience of the banks to a common shock(s). Scenarios could comprise a baseline while the adverse scenario could assume the materialization of the most material threats to the stability of the Bahrain economy, banking sector and other regional and global parameters.		
For instance, the BCBS IRRBB paper mentioned above, also includes a standardized scenario and more extensive guidance on the expectations for a bank's IRRBB management process in areas such as the development of interest rate shock scenarios. Prescribing interest rate shocks will provide consistency across the sector.		
In addition, the module calls for the underlying methodology for scenario development and stress testing to be consistent regardless of whether they are used for firm-wide stress testing, ICAAP or recovery planning. CBB may wish to add IFRS9 to ensure consistency of use of scenarios.		
Finally, banks are commonly using internal models (Rating/Scoring/PD, LGD, etc) as baseline models and subject those to the stress testing. CBB may consider requesting an independent (internal or external) review and validation of these models as a critical input in the stress testing process.		
<u>A Bank:</u> The Stress Testing module does not seem to work for a branch like ours. ST-1.8.4 prescribes a specific submission calendar for stress test results. In the case of our Bank, all our stress testing is done at the HQ level (via CCAR, etc), so we will have nothing to submit to CBB on those dates. We should try to carve out branches of foreign banks from this regulation, or at least branches like ours (e.g. branches booking neither deposits nor loans in Bahrain).	GR-6	Requirements of the module shall be applicable to risks that are materially relevant to the branch. However, stress testing for the purpose of deriving a capital charge is not applicable for branches.

	<b>an -</b>	
<ul> <li>A Bank: As CBB is aware, the Bank has recently got the Stress Testing framework / model validated by an external consultant, which is broadly in line with the CBB consultation paper. We have also forwarded the Stress testing policy document to the CBB for information earlier (as mandated by CBB). However, a few points highlighted below require confirmation from CBB to ensure that our policy is in line with CBB guidelines (the details are provided in Annexure).</li> <li>a) The guidelines seem to indicate quantitative assessment of risks like operational risk, strategic risk and reputation risk (as mentioned in reputation risk module). Even advanced financial markets are finding it difficult to cope with quantitate assessment for such risks. Hence, we feel that the assessment of these, as detailed in the bank's Stress testing / ICAAP policies, is adequate.</li> <li>b) While no timeline has been specified for implementation, we feel that the guidelines relating to LRM Stress Testing in specific must be extended by at least one year from the date of LRM implementation, as the data structure required to carry out the Stress Testing (with scenarios and analytics) primarily relies on normal LRM reporting. In this connection, we would also like to state that even the current deadline of 1/1/2019 stipulated for regular LRM reporting is extremely tight, given the enormity of the tasks involved. Hence we are of the view that even the timeframe for implementing the regular LRM reporting has to be extended by at least 6 months i.e. implementation of LRM reporting to start by 1/7/2019, and to roll out the implementation over phases, to enable banks enough time to properly implement the requirements.</li> <li>c) We feel that the existing practice being adopted in RRP monitoring should suffice as an implicit Reverse Stress Testing (as detailed in the RRP document which has been forwarded to CBB for information earlier).</li> <li>d) The remedial actions detailed in the ICAAP / Stress testing Policies we feel are adequa</li></ul>	GR-7	<ul> <li>a. Banks to develop most appropriate tools for measurements as may be relevant to its risk profile</li> <li>b. The time-line for LRM should be in-line with the implementation time-line specified in Module LM).</li> <li>c. Banks must demonstrate adherence to this Module.</li> <li>d. Banks must demonstrate adherence to this Module.</li> <li>e. A separate IRRBB module will be circulated for consultation.</li> </ul>
the bank with different terminologies. Similarly, these scenarios will not be applicable to IRRBB, if Standardized Approach is used (since the scenarios are already prescribed therein).		
A Bank:	GR-8	a. The module provides guidance on stress
a. It is recommended to enlist and describe some standard stress tests, which all banks are required to conduct on quarterly basis and submit their results to CBB on a prescribed format (should be Annexed) within defined timeline after the close of each quarter.		scenarios under ST-2.3.1. The stress testing programme must be commensurate with the nature, size and
<ul><li>b. Practical working examples of the shocks mentioned in the Stress Test ("ST") module may please be made part of the module as an annexure, for better understanding and implementation.</li><li>c. A training session may be held by the central bank on the stress testing module where knowledge</li></ul>		complexity of each bank's business operations, markets it operates within and its risk profile, therefore introducing standard one-size fits all stress tests may
is imparted regarding how to carry out the shocks and their practical implementation.		not be practical.

<ul> <li>d. The mandatory tests cover credit, market, and liquidity risk and contain three levels of shocks under each scenario. The three levels of shocks are defined as (i) Minor, (ii) Moderate, and (iii) Major shocks. This classification reflects the intensity of the shocks and magnitude of their impact.</li> </ul>		<ul><li>b. This is specific to each bank.</li><li>c. Each bank must arrange competency enhancements based on their training needs.</li><li>d. Please refer to the rules in the Module that has been finalised.</li></ul>
A Bank: Risk Factors - Credit Risk: We recommend CBB specify whether the default probabilities are based on individual bank's experience or are in accordance with Basel Committee on Banking Supervision. Also, the CBB should explain whether these probabilities are cumulative or non-cumulative.	GR-9	For the purpose of stressed expected loss, the default probabilities should be point in time estimates. The stress testing time horizon is 3-Years, with a projection time window of 12-Months. i.e. the bank should estimate the stressed metrics for 12 <sup>th</sup> , 24 <sup>th</sup> and the 36 <sup>th</sup> month from the reporting period. Hence PD should be a cumulative for these respective time points.
<u>A Bank:</u> The consultation document is very detailed and we would require substantial enhancement in the infrastructure to implement. Hence we require more time from the CBB for the implementation.	GR-10	Please see circular accompanying the final Module.
<u>A Bank:</u> We suggest that the requirements of stress testing be applicable based on assets of the bank above certain threshold.	GR-11	The module and requirements are applicable to all banks regardless of size.
A Bank: The Bank, being a wholesale investment bank, has a business model that is different from a normal commercial/retail bank business model. The bank operates an investment and fee based business model. Hence overall requirements related of the proposed module should not be fully applied to our Bank and similar wholesale investment banks. Such measures may not align with an investment banking model. The rules should be reconsidered / modified to suit the business line of investment banks. We would like to also request CBB to allow some time before the changed rules are applied. Given only 6 months is left before 2018 ends, we request CBB to allow us more time to implement all the policies and procedures and system changes. We also request CBB to implement the same in Phases so that Banks get sufficient time to comply with these changed rules.	GR-12	Refer to GR-10

A Bank:	GR-13	Bank to discuss with CBB specific
From the bank perspective our stress testing program is established over a period of time working various regulators across the globe and included many learnings and best practices along the way. The regional program is largely aligned to the guidance provided here, however establishing the same at branch level may not be prudent.	GK-13	implementation queries
A Bank: Other Comments:Submission Data templates: are there any/will there be any prescribed data templates to complete?Reverse stress test submission- can this be done as part of ICAAP (notwithstanding above comments on branches)?Can rules be applied on a proportional basis to branches? Are there any specific qualitative data requirements? Can one of the stress tests be done as a sensitivity (October submission) and the April be part of the ICAAP as a scenario based submission?	GR-14	<ul> <li>a. No templates provided</li> <li>b. It is alright to combine it with the ICAAP process.</li> <li>c. Application of the rulebook is addressed under ST-A.1.4 &amp; ST-A.1.5</li> <li>d. Yes as defined in the ICAAP and Stresstesting modules.</li> <li>e. Bank to discuss with CBB specific implementation queries</li> </ul>
<u>A Bank:</u> To maintain uniformity and ease the process of assessing industry averages and comparison amongst banks (benchmarks), CBB should consider standardizing the Stress testing and ICAAP parameters. In other words, what factors the banks should consider as part of their stress testing. This complies with international best practices.	GR-15	Refer to GR-8
A Bank: a. The module applies to all conventional bank licensees and does not distinguish between locally incorporated banks and branches of overseas banks. However, due to the wide scope of the module it would be advisable if the module could stipulate appropriately divergent requirements for the different types of the licensees (i.e. locally incorporated banks and branches of overseas banks) b.ST-1.8.4 requires biannual stress tests reports, – would this be applicable to branches? If so, does a stress testing conducted by our head office on bank wide level be sufficient for the branch in Bahrain. If not, further guidelines on how to conduct the stress testing at a branch level is required.	GR-16	<ul><li>a. Amendment made to ST-A to address the query</li><li>b. Relevant stress tests must be performed.</li></ul>

Specific Comments:			
specific Comments.			
Reference to the draft Directive:	Comments	REF	CBB Response
General Requirements ST-1.2.1 Banks must establish a rigorous and forward-looking stress testing programme that is commensurate with the nature, size and complexity of its business operations, markets it operates within and its risk profile.	<ul> <li><u>A Bank:</u></li> <li>a) Sections ST-1.2.1 and ST-1.2.2 require all banks to establish a rigorous and forward-looking stress testing programme that is commensurate with the nature, size and complexity of its business operations, markets it operates within and its risk profile. The coverage of the stress testing programme must be comprehensive.</li> <li>b) We recommend CBB provide additional guidance on the granularity required in the context of the business plan, to ensure that a minimum set of requirements are met by all licensees.</li> </ul>	SP-1	<ul><li>a) The rulebook is amended to reflect a period of 3 years.</li><li>b) Banks are required to develop their stress testing frameworks based on the specificities of this risks, business models, products and markets in which they operate.</li></ul>
ST-1.2.2 The coverage of the stress testing programme must be comprehensive and include on- and off-balance sheet exposures, commitments, guarantees and contingent liabilities. Banks must factor in existing material risks and emerging risks relevant to its business and operating environment.	No comments	SP-2	Nil.
ST-1.2.3 Stress testing must form an integral part of a bank's internal capital adequacy assessment and risk management process. Banks must be able to demonstrate the robustness of the stress testing methodologies used, the quality and comprehensiveness of the data underpinning the stress testing, involvement of relevant stakeholders	A Bank: Since Stress testing is considered to be an integral part of ICAAP and ICAAP is only applicable to locally incorporated banks, we would request clarification if stress testing would be applicable to Branch of a foreign Bank in Bahrain. Request clarity on this when the consultation is circulated as a regulation.	SP-3	See GR-6.

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
across Board, senior management, business line, risk and finance control and oversight functions in the design and implementation of the stress test programme, and the use of stress test results by risk management.			
<ul> <li>ST-1.2.6 Responsibilities of the Board must include:</li> <li>(a) Approving the policies and procedures governing the stress testing programme, and ensuring sufficient resources and</li> </ul>	<u>A Bank:</u> <u>ST-1.2.6 (g):</u> The Board Level Committee referred to needs to be specified. Ideally it should be the subcommittee of the Board responsible for risk management in the Bank.	SP-4	Board is responsible for matters highlighted in the rule.
<ul><li>expertise to effectively implement the programme;</li><li>(b) Ensuring that the design of the stress testing programme is consistent with the</li></ul>	A Bank: ST 1.2.6. Responsibilities for the board For branches – can the parent entity board be sufficient as part of the entity's overall ST responsibilities?	SP-5	Rulebook amended to address the query in ST-1.2.8.
<ul> <li>bank's risk appetite and is appropriate to the nature, scale, complexity of its risk- taking activities and overall business strategy;</li> <li>(c) Ensuring that views and inputs from relevant functions and departments are considered in the stress testing programme;</li> <li>(d) Providing constructive challenge on the results of stress tests, scenarios, key assumptions and methodologies used in the stress tests;</li> </ul>	A Bank: The Bank has a comprehensive Enterprise wide stress testing framework at overall group level. This includes annual comprehensive stress test for ICAAP which meets all their requirements and also covers all principal risk types. There is a well-established governance framework around ICAAP stress testing at group level. In addition, liquidity and Reverse testing is also done at group level. Stress testing on credit risk portfolios are also done based on portfolio materiality. In the above enterprise wide stress testing Bahrain is also	SP-6	Noted
(e) Reviewing the appropriateness of management actions proposed by senior	covered.		

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
management to mitigate potential vulnerabilities, taking into consideration the factors set out in Section ST-1.6; (f) Approve management actions; and (g) Commissioning regular independent reviews on the stress testing programme in accordance with Section ST-1.7.			
General Requirements ST-1.5.1 Banks must adopt an integrated approach to stress testing and conduct stress tests on a firm-wide basis and on a consolidated basis where applicable, providing a spectrum of perspectives at product-, business- and entity-specific levels. Where the bank is part of a larger banking group, its stress tests must also take into account the potential spillover effects and inter-dependence among members of the group.	A Bank: <u>ST-1.5.1</u> : The guideline states that Banks must adopt stress testing on a consolidated basis. In cases where subsidiaries are banks located in a different country and is governed by the local regulatory guidelines on stress testing and is exposed to different risks, in such cases it would be ideal if the stress testing results are considered on a standalone basis for the specific bank. In such cases the results of stress testing of this specific bank can be consolidated/aggregated into the stress testing results of the reporting entity.	SP-7	This is accepted.
ST-1.5.2 Stress tests must be regularly conducted, at least on a biannual basis. Tests must consider the nature of the risks involved and the purpose of the stress tests. Stress scenarios must be coherently developed so that risks that are inherently linked (e.g. market risk and credit risk) can be assessed together across portfolios	A Bank: <b>1.5.2 biannual basis by end April and October</b> Can these be aligned to ICAAP submission dates (for April submission)? Furthermore, the stress tasting should be an integral part of entity ICAAP and an annual exercise could be sufficient, rather than 2 suggested here.	SP-8	No changes required. Refer to GR-1
and across time. The bank may refer to Section ST-2.2 for any available guidance	<u>A Bank:</u> We believe that annual stress testing is sufficient under normal	SP-9	Refer to SP-8

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
on stress testing for specific risks.	circumstances, as most bank's profiles would not change materially during the year. However, it can be modified to state the frequency as "at least annually or more frequent as deemed fit or when circumstances demand". However, CBB can consider bi-annual frequency for D-SIBs.		
ST-1.5.7 Banks must ensure that the data used for stress testing is representative of, and bears similar risk characteristics to, the specific products or risk profile of the bank. In cases where there are data limitations, proxy estimates can be used. However, banks must apply a margin of conservatism to proxy estimates.	<u>A Bank:</u> ST-1.5.7 proposes that, "In cases where there are data limitations, proxy estimates can be used", we would like to suggest that in such cases a proper document may be developed to list and highlight the assumptions being taken into account.	SP-10	All assumptions should be part of the stress testing report.
Sensitivity and Scenario Analysis ST-1.5.8 Banks must use a range of stress testing methodologies, such as sensitivity and scenario analysis, to ensure that its stress testing programme is comprehensive. In conducting scenario analysis, banks must assume a dynamic balance sheet rather than a static balance sheet. Banks must project growth (or decline) in balance sheet size under the	<u>A Bank:</u> ST-1.5.8 proposes that, "In conducting scenario analysis, banks must assume a dynamic balance sheet rather than a static balance sheet. Banks must project growth (or decline) in balance sheet size under the chosen stressed conditions." We may suggest that the impact of Scenario Analysis (Stress Shock) will bring about a change in the Balance Sheet so it should be applied on Static Balance Sheet rather than on dynamic Balance Sheet.	SP-11	The purpose of stress testing is also to evaluate the feedback effect of stress scenarios on the bank's balance sheet growth (or deceleration or deleveraging as the case may be). This will also provide the supervisor with a view of management's response to different stress conditions. Hence, we require banks to conduct stress testing assuming a dynamic balance sheet.
chosen stressed conditions.	<u>A Bank:</u> Suggest the CBB to allow banks to choose between setting a static or dynamic balance sheet assumption during stress testing.	SP-12	Refer to SP-11

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
	<u>A Bank:</u> Recommend that this be made a guidance which bank's can consider based on its size and scale of operations, rather than as a rule.	SP-13	Refer to SP-11
ST-1.5.9 A sensitivity analysis estimates the impact of a single risk factor or a small number of closely-related risk factors (e.g. interest rates, FX rates, real estate price, equity price etc.) on asset value, asset quality, earnings, capital or liquidity ratios. In most cases, sensitivity tests involve changing inputs or parameters without relating those changes to an underlying event or real-world outcome. While it is helpful to draw on extreme values from historical periods of stress, sensitivity tests should also include hypothetical extreme values to ensure that a wide range of possibilities are included. 1.5.10 in Volume 2	A Bank: <u>ST-1.5.9</u> : In cases where a scenario analysis is to be applied where in multiple risk factors are to be stressed simultaneously correlation between risk factors will be required to be established with reference to historical trends. In absence of which the correlation will be required to be based on assumptions. Alternatively, CBB may provide the correlation to be applied between multiple risk factors.	SP-14	Paragraph ST -1.5.9 provides guidance for sensitivity analysis of Single risk factor or correlated multiple risk factors.
ST 1.5.12 Apart from assessing and being prepared to respond to stressed conditions, banks must also be aware of the scenarios that can render its business non-viable, due to severe financial or reputational damage. Banks must, therefore, implement a reverse stress	<u>A Bank:</u> Reverse stress testing may not be mandatory for offshore banking units As an offshore banking unit whose capital is maintained at Head office level, reverse stress testing may not be pertinent as situations that may threaten the viability or insolvency may not be applicable.	SP-15	Applicable to locally incorporated banks only.
testing program to identify the scenarios or events that can threaten the viability or	<u>A Bank:</u> 1.5.12 Reverse stress test	SP-16	Agree that reverse stress testing should be conducted at legal entity level.

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
solvency of the bank. ST-1.5.13 in Volume 2	Can branches be excluded? (Branches cannot become unviable on a stand-alone basis).		
	<u>A Bank:</u> As a Branch of a Foreign Bank with small presence, we request that Reverse stress testing may not be made mandatory for Branches of Foreign banks.	SP-17	See SP16.
	<u>A Bank:</u> ST-1.5.12 and ST-1.5.14 Suggest the CBB to have reverse stress testing as an optional approach for banks to consider as a principle and not as a mandatory rule, given the complexity in its formulation.	SP-18	The regulation is mandatory for locally incorporated banks
	A Bank: Section ST-1.5.12 requires all banks to implement a reverse stress testing program to identify the scenarios or events that can threaten the viability or solvency of the bank. A few paragraphs have been detailed in this section, providing a brief overview on the reverse stress testing program. We recommend CBB provide further details in this section to include working examples and provide guidance on linking triggers with stress scenarios and ultimately recovery plans.	SP-19	There is no need to provide a working paper as the regulations clearly define the requirements from banks.
	<u>A Bank:</u> Recommend that instead of having a separate reverse stress testing program to be conducted by the licensee, it would be better if the following line is added as a part of stress testing rules "the stress testing must be able to identify the scenarios or events that can threaten the viability or solvency of the bank.	SP-20	Refer to GR-8

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
ST-1.5.14 Reverse stress testing must serve as a starting point for determining the scenarios for recovery planning. Given that stress testing helps in understanding the quantum and the direction of impact of various scenarios on the bank's critical risk metrics, the process of defining the recovery triggers should also be informed by stress testing	<u>A Bank:</u> Recommend that this be made a guidance rather than as a rule.	SP-22	Reverse stress testing requirements are mandatory for locally incorporated bank.
Alignment with Recovery Planning Program ST-1. 5.17 Banks must test their recovery plan against three types of scenario at a minimum:	<u>A Bank:</u> ST- 1. 5.17. Application of test on recovery plan "Idiosyncratic scenario", factors unique to the banks like Credit / Liability Products, Structure, Operational centers should be highlighted.	SP-23	SP16.
<ul> <li>(a) Idiosyncratic scenario;</li> <li>(b) Market-wide scenario; and</li> <li>(c) Scenario with a combination of both components.</li> </ul>	<u>A Bank:</u> Suggest the CBB to allow the banks to choose the number of scenarios to be presented under each recovery plan type, as in some cases one scenario might be sufficient given that there are three categories of recovery plan presented in this rule.	SP-24	Refer to GR-8
	A Bank: <b>1.5.17 Recovery Planning</b> Can branches exempt from this if already undertaken at parent entity level?	SP-25	This applies to Bahraini Banks only.
ST-1.5.18 Banks must adopt more than one scenario within each of the three scenario types.	A Bank: ST-1.5.17 and ST-1.5.18 Bank is governed by stipulations of the Home regulator. At Bank level there is no specific recovery plan since the Home regulator doesn't stipulate any such requirement under stress testing framework. The Bahrain Branch is part of the Bank	SP-26	Applicable to locally incorporated banks only.

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
	and as such has the same legal entity. In case of any stress, support is always available from HO. Hence it is recommended that these particular clauses should not be made mandatory for branches of foreign Banks.		
	A Bank: ST-1.5.17 and ST-1.5.18 Recommend that this be made a guidance rather than as a rule. Also, if this is made a rule, we believe that CBB should provide more guidance on the same, as the requirement is not very clear.	SP-27	Regulation is clear.
ST-1.6 Stress Testing Results and Management Actions ST-1.6.1 Banks must evaluate the impact of stress tests against accounting profit and loss, impairment provisions, risk	<u>A Bank:</u> ST- 1.6 Stress Testing Results and Management Actions, inclusion of Contingency Funding Plans, Crisis Management head and Reliance on few funds providers may also be included.	SP-28	Noted.
weighted assets ('RWA'), regulatory capital, liquidity and funding gaps.	<u>A Bank:</u> Suggest the CBB to have this rule changed to a principle where banks can choose to evaluate all these areas, because building a stress testing model for each risk type that will considered all these factors plus the recovery plans and reverse stress testing is too burdensome on the banks with limited resources. Also, the process of automating stress testing is not easily achievable because of the number of manual inputs required and the qualitative judgement.	SP-29	The requirement is in-line with requirements in other proposed modules (ICAAP)
ST-1.6.2 Banks may also use other measures to gauge the impact of stress tests depending on the purpose of the stress test, as well as the risks and portfolios being analysed including:	<u>A Bank:</u> The Bank is governed by stipulations of the Home regulator and it follows regulatory capital based approach for gauging impact of stress test in line with the Home regulator stipulations.	SP-30	This is already a guidance

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
<ul> <li>(a) Asset values;</li> <li>(b) Economic or risk-adjusted profit and loss; and</li> <li>(c) Economic capital requirements.</li> </ul>	Hence it is recommended that this clause should not be made mandatory for branches of foreign Banks and branches of foreign banks be allowed to use the approach stipulated by their home country regulator.		
ST-1.7 Independent Review ST-1.7.1 Banks must ensure that the stress testing framework is subject to independent review by the internal auditor, on an annual basis, and a third party consultant, other than the external auditor, every 3 years as required under HC-6.6.	A Bank: <u>ST-1.7.1</u> : It is provided that the stress testing framework is subject to independent review by the internal auditors on an annual basis, the provisions to have the same independently reviewed by an external consultant to be provided to address situations where the required skill set is not available with the internal audit department. <u>A Bank:</u> ST-1.7.1 & ST-1.7.2 We wish to request that review by a third Party consultant may not be insisted upon in case of Branch of Foreign Banks. However, the Bank will ensure that the stress testing framework is subject to independent review by the internal auditor on annual basis.	SP-31	Current regulations require banks to submit to the CBB any outsourcing engagements and scope for approval. Accordingly, this is already covered.
	A Bank: We recommend that independent audit of the stress testing framework to be conducted by Internal auditors only. A Bank: ST- 1.7.1 Review frequency of Stress Testing Framework – it is suggested that the result, escalation to management, management discussions and Management Action triggers should be reviewed on an annual basis, whereas, the framework should be reviewed every 3 years by Internal Auditors.	SP-32 SP-33	Refer to SP-31 Refer to SP-31

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
	<u>A Bank:</u> <b>1.7 Independent Review every 3 years</b> For branches can we consider a review of the parent ST programme sufficient to meet requirement (as opposed to stand-alone review of the Bahrain branch)?	SP-34	Refer to SP-31
	A Bank: "1.We recommend that the Bank's Internal Audit function should undertake audits over EMRF activities following a Risk Based approach instead of annually 2. We would request clarity on the scope of external consultant's review when the Internal Audit review is already specified.	SP-35	Refer to SP-31
	<b><u>A Bank:</u></b> We are of the opinion that this requirement should only be applicable to D-SIBs and banks with a low CAR (below 20%). However, if CBB believes it should be made mandatory for all banks, then we suggest not mentioning any review frequency for internal audit (frequency of coverage should be ideally decided by internal audit department based on its own annual risk assessments and audit plan drawn in conjunction with Board Audit Committee). Also, mandating an external consultant review, will be an additional cost for small banks and therefore CBB should consider extending the frequency to once in 5 years, which would be in line with similar requirements in other areas.	SP-36	Disagree, stress testing is an important risk management tool.
ST-1.7.2 In addition to the requirements under HC-6.6, such reviews must cover the following: (a) Effectiveness of the stress testing	<u>A Bank:</u> <u>ST-1.7.2 (i)</u> : Validation of stress testing results, through back- testing of historical scenarios would be with limited historical scenarios and that too which would have taken place under	SP-37	The purpose of back testing here is not to validate the statistical accuracy of stress testing results, but they are to evaluate the logical consistency and

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
programme in meeting its intended purposes, and the requirements of this Module;	different economic conditions than what was prevailing in the region.		broad alignment of stress testing results with the trends observed during actual stressed conditions.
<ul> <li>(b) Adequacy of management oversight and approval process;</li> <li>(c) Adequacy of documentation for the programme;</li> <li>(d) Integration of stress testing into risk</li> </ul>	<u>A Bank:</u> 1.We recommend that the Bank's Internal Audit function should undertake audits over EMRF activities following a Risk Based approach instead of annually 2. We would request clarity on the scope of external	SP-38	Refer to SP-31
(d) Integration of stress testing into fisk management and decision-making processes at appropriate management levels, including capital and liquidity planning;	consultant's review when the Internal Audit review is already specified.		
(e) Implementation of the programme, as well as subsequent authorization for, and implementation of, significant changes or development work (e.g. to take account of changes in bank's business strategies, risk characteristics or external environment);			
(f) Comprehensiveness of risk exposures captured by the programme, and the methodologies, scenarios and assumptions used;			
(g) Verification of the quality of data sources used to run the stress tests (e.g. in terms of accuracy, consistency, timeliness, completeness and reliability);			
(h) Integrity of management information			

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
and reporting systems for the stress tests; and (i) Validation of stress testing results, such as through back testing historical scenarios (e.g. the 2008/09 Global Financial Crisis and the 1997 Asian Financial Crisis) and their impact on a bank's portfolio, or benchmarking with			
other stress tests conducted within and outside the bank.			
<ul> <li>ST-1.8.4 Banks must submit the stress test results to the CBB biannually (before 30th April and 31st October). The submission must include:</li> <li>(a) Description of the risks, exposures and</li> </ul>	A Bank: ST-1.8.4: CBB may provide a template to be utilized for reporting the results of stress tests to ensure standardization and uniformity in the reporting requirements. A Bank:	SP-39 SP-40	Given that standard and specific stress tests are not defined, than a standard template cannot be produced. Refer to SP-39
entities covered; (b) Description of the scenarios and the rationale for it; (c) Prevailing and projected macroeconomic conditions, as well as	Section ST-1.8.4 requires all banks to submit the stress test results to the CBB biannually (before 30 <sup>th</sup> April and 31 <sup>st</sup> October). This section also lists the information required in the submission.		
justifications for assumptions used; (d) Description of the methodologies used, including justifications for any material	However, we recommend CBB formulate a standard template for submission of stress testing results to ensure consistency in submission across all financial institutions. Also, in addition to		
<ul><li>changes to the previous methodologies adopted;</li><li>(e) Impact on the profitability, capital adequacy and liquidity, as well as on all</li></ul>	the deadline for submission, the CBB shall also specify the as of date of executing the stress tests (is it 31 <sup>st</sup> December of the prior year for 30 <sup>th</sup> April submission?).		
material risk indicators; both absolute amounts and key financial ratios must be	<u>A Bank:</u> ST-1.8.4	SP-41	Refer to GR 1

Specific Comments:			
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<b>Reference to the draft Directive:</b>	Comments	REF	CBB Response
reported;	An annual independent review and submission to the CBB,		
(f) Description of management actions that have been considered and an	rather than the proposed biannual frequency, is more proportionate to the Bank business model, its exposure to		
assessment of their reasonableness;	illiquid products, and may be more in line with the Basel		
(g) Assessment on areas of vulnerability	committee findings ("Supervisory and bank stress testing:		
and the associated risk factors. The	range of practices, December 2017").		
assessment must be at a sufficient level of	A Bank:	SP-42	Management actions should form part
granularity to provide a meaningful	<b><u>ST-1.8.4 (f)</u></b> : Details of the management actions that has been	3P-42	of the Stress Testing Report.
understanding of the vulnerable areas (for	considered and an assessment of its reasonableness can be		of the Stress Testing Report.
instance, business line, geographical	provided only on the next reporting date, this needs to be		
sectors, economic sectors or sub-sectors,	addressed.		
market segments, borrower groups) and	A Bank:	SP-43	Applicability is in-line with respective
the causes of stressed losses;	<b><u>ST-1.8.4</u></b> (e): Impact on profitability and capital adequacy may	51 45	modules (i.e. if the liquidity risk module
(h) Extract of minutes of the Board and/or	only be reported. This may not be applicable for an		is applicable, then the respective stress
any other related sub-committee meetings	offshore banking unit, as plausible but extremely rare events		testing should be applicable)
on the deliberation on the stress tests and	envisaged in stress testing, mainly impact profitability and		······································
reverse stress test results; and	erode capital base thereby threatening the insolvency or		
(i) Assessment and results of independent	viability of the institution which has more to do with the firm		
reviews, where such a review has been	rather than one of its branches.		
conducted.	A Bank:	SP-44	The level of granularity is dependent on
	<b><u>ST-1.8.4</u></b> (g): Assessment on areas of vulnerability and the		the nature of foreign branch's business
	associated risk factors may be reported.		(i.e. types of loans/ investments /
	Further granularity may not be much relevant for an offshore		treasury products in its balance sheet,
	banking unit/branch.		types of Industries it has exposures to,
			types of counterparties etc.
	<u>A Bank:</u>	SP-45	Noted.
	<b><u>ST-1.8.4 (h)</u></b> : May be dispensed with. Applicable only in		
	the case of full-fledged Banks where deliberations are made at		
	the Enterprise level.		

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
	A Bank: <u>ST-1.8.4 (i)</u> : May be dispensed with. May be applicable at enterprise level.	SP-46	Independent reviews should be conducted.
	A Bank: ST-1.8.4 (a) to (i) We wish to request that the same may be dispensed with in case of Branch of Foreign Banks.	SP-47	See SP46.
	<u>A Bank:</u> ST 1.8.4: point (C&G): "Prevailing and projected macroeconomic conditions and its justification". We suggest that this should not be made part of the stress testing. It's an economic review exercise carried out by economic wings of Govt, Central Banks and Research Houses, especially overseas branches will not have the adequate and right skill set to perform it professionally.	SP-48	Banks may obtain the services of 3 <sup>rd</sup> party consultants.
	<u>A Bank:</u> Suggest the CBB to consider dropping the mandatory biannual reporting of the stress testing, as it is preferred that stress testing be reported internally, to minimize regulatory reporting requirements.	SP-49	Refer to GR-8
	A Bank: Suggesting the underlined: Banks must submit the stress test results to the CBB <u>annually</u> (before 30th June of each year). As stress testing is an integral part of ICAAP, request CBB to allow us to perform stress testing with the same frequency as that of ICAAP, i.e., annually and to submit the result on 30 June each year along with the ICAAP submission.	SP-50	Refer to GR-1

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
	A Bank: ST-1.8.4 and ST-1.8.5 We are of the opinion that this requirement should only be applicable to D-SIBs. For other banks, we believe that CBB should consider broad level guidance on the stress testing parameters and the reporting. Also, there is already a control from CBB under rule ST 1.8.8 wherein banks could be asked by CBB to revise stress testing in case of material shortcomings in the program, which should be a sufficient control in our opinion. Also, as suggested above, we recommend that this be made annual instead of bi-annual, with reporting deadline of 30 <sup>th</sup> June (as first few months of the year tend to be quite busy for most banks due to Financial reporting deadlines)	SP-51	Independent review should be conduct in-line with HC-6.6, Recovery Plans are applicable in-line with the ICAAP module.
Reference to Module DS for X Bank's comment: Recovery Plan DS-2.1.8 The Recovery Plan must identify possible recovery measures, recovery options and the necessary steps and time needed to implement such measures, as well as assess the associated risks. An effective Recovery Plan must at least consider the following: (a) Governance arrangements and escalation process following a trigger event; (b) Recovery triggers must be well-defined and tailored to the full range of risks faced	<ul> <li><u>A Bank:</u> ST 1.8.4 Number of stress scenarios: we seek further clarity on proposed number of stress scenarios expected based on the differential guidelines within the various modules</li> <li>DS - 2.1.8 (h) – mentions three scenarios 1) Marketwide 2) Bank-specific 3) Combination of both.</li> <li>DS - 2.1.11 – this point seems to add on to the previous paragraph to include more than one scenario in each of the above three scenarios. Therefore, expecting a total of minimum six different scenario modelling.</li> <li>ST - 1.5.17 – this point is in line with DS-2.1.8(h) and ST-2.1.11</li> </ul>	SP-52	Rulebook amended for consistency

#### **Consultation for Proposed Stress Testing Module (ST)**

Industry Comments and Feedback June 2018

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
by banks. The threshold level for triggers must be calibrated with impact on the bank's economic capital and set out clearly in the bank's recovery plan; (c) Actions or responses that should occur when triggers are breached; there should be an expectation that breach of a trigger causes a predetermined escalation and information process up to Board and Senior Management level; (d) A detailed explanation and analysis, illustrating how the triggers were calibrated, as well as highlighting the effectiveness of the triggers; (e) Incorporating qualitative triggers in their consideration of whether a recovery response is necessary and, if so, what kind of response would be appropriate; (f) Incorporating the triggers for recovery planning into the banks' overall risk management frameworks. Recovery triggers must be aligned with (but not limited to) existing triggers for liquidity or capital contingency plans, early warning indicators and the bank's risk appetite; (g) Triggers for recovery planning must be complemented by early warning indicators that alert the bank to emerging	<ul> <li>ST - 1.8.5 – this point mentions a different dimension to the ones previously mentioned for stress scenarios 1) Base 2) Plausible and 3) Worst case</li> <li>In this context, we would like to highlight that other regulators have not been prescriptive on the number of scenarios for stress tests<sup>1</sup>.</li> </ul>		

<sup>&</sup>lt;sup>1</sup> http://www.prarulebook.co.uk/rulebook/Content/Chapter/211211/30-05-2018

Specific Comments:			
specific connicuts.			
Reference to the draft Directive:	Comments	REF	CBB Response
signs of stress, but that do not yet give rise			
to a triggering event;			
(h) Use at least one market-wide			
(systemic) stress scenarios and one bank- specific (idiosyncratic) stress scenarios, as			
well as a combination of systemic and			
idiosyncratic stress scenarios, to assess the			
robustness of their Recovery Plans and to			
assess which recovery options would be			
effective in a range of stress situations;			
and			
(i) Allocation of losses to shareholders,			
and unsecured and uninsured creditors in a manner that respects the hierarchy of			
claims.			
DS-2.1.11 Banks must use two to four			
stress scenarios, both systemic and			
idiosyncratic, for the purpose of recovery			
planning.			
Later Reference to Module ST related to			
X Bank's comment:			
Alignment with Recovery Planning			
Program			
ST-1. 5.17 Banks must test their recovery			
plan against three types of scenario at a			
minimum:			
(a) Idiosyncratic scenario;			

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
<ul><li>(b) Market-wide scenario; and</li><li>(c) Scenario with a combination of both components.</li></ul>			
<ul> <li>ST-1.8.5 The reporting of stress test results by banks must, at minimum, cover a 3-year horizon based on the following scenarios:</li> <li>(a) Base scenario;</li> <li>(b) Plausible scenario; and</li> <li>(c) Worst case scenario.</li> </ul>			
<ul> <li>ST-1.8.5 The reporting of stress test results by banks must, at minimum, cover a 3-year horizon based on the following scenarios:</li> <li>(a) Base scenario;</li> <li>(b) Plausible scenario; and</li> <li>(c) Worst case scenario.</li> </ul>	<u>A Bank:</u> <u>ST-1.8.5:</u> The guideline mentions 3 scenarios namely Base, Plausible Scenario and Worst-Case Scenario: however, ST 1.5.18 mentions 3 scenarios which include Idiosyncratic, Market wide and Scenario with combination of both components. Further clarity required on the total number of scenarios for which stress tests are to be conducted.	SP-53	Refer to SP-52
	<u>A Bank:</u> Suggest the CBB to have this rule changed to a principle where banks can choose the time horizon and number of scenario events.	SP-54	Refer to SP-1
	<u>A Bank:</u> Worse case could imply a reverse stress test scenario which is covered by 1.5.12, the suggestion is to rather use 'extreme' to describe the scenario.	SP-55	Consistent with Basel and IMF.
<b>Liquidity Risks</b> ST-2.3.3 The following are examples of stress scenarios relating to liquidity risk:	<u>A Bank:</u> ST- 2.3.3 In Liquidity Risk impact of unutilized commitment limits can also be introduced.	SP-56	The referred regulation is a guidance, banks have the discretion to apply more scenarios based on their size,

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
<ul> <li>(a) Tightening of credit lines - the potential impact of liquidity stress on the solvency position arising from a higher cost of funding due to tightening of wholesale and deposit/funding markets, and loss in the value of marketable securities due to market illiquidity;</li> <li>(b) Funding concentration – this assesses the liquidity risk of significant business activities and concentration to a particular source of funding, such as large depositors/funding providers, investment account holders, wholesale market funding or holdings of a particular asset class; and</li> <li>(c) Withdrawal risk of investment account holders ('IAH')/deposit outflows – this assesses the liquidity risk arising from honouring redemptions by investment account account holders of unrestricted investment accounts at the level of individual funds in case of Islamic windows.</li> </ul>			complexity and risk profile.
Market Risks ST-2.3.4 The following are examples of stress scenarios relating to market risk: (b) Effect of key monetary decisions by the CBB, which might impact stock prices, FX rates and interest rates;	<u>A Bank:</u> ST- 2.3.4 (b) Shock should not be restricted to impacting Exchange, Interest Rate and Equity prices but also include considering market factors.	SP-57	The referred paragraph is a guidance to examples of stress scenarios and is not limited to those mentioned.
<b>Other Risks</b> ST-2.3.5 The following are examples of	<u>A Bank:</u> ST- 2.3.5 (b) Concentration Risk – examples may please be	SP-58	Sector, counterparty, etc.

Specific Comments:			
Reference to the draft Directive:	Comments	REF	CBB Response
stress scenarios relating to other risks:	provided for conducting stress shocks to assess concentration		
(b) Risk concentrations – this estimates the	risk.		
impact from changes in market conditions			
which could give rise to risk concentrations.			
Banks may identify and assess the impact of			
heightened correlations or hidden inter-			
dependencies within and across risk			
types/risk factors, and possible second-round			
effects under severe market shocks that may			
lead to an increase in bank's exposures; and			