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Sent by email

**RE: Framework for supervisory stress testing of central counterparties (CCPs) – Consultative report**

Dear Committee Members:

The Global Association of Central Counterparties (CCP12) is a global association of 36 major central counterparty (CCP) organizations in Europe, Asia and the Americas. CCP12 was formed to share information, develop analyses and policy standards for common areas of concern. CCP12 members work toward the common purpose of creating conditions in which a global CCP solution can emerge to meet the needs of the marketplace.

The European Association of CCP Clearing Houses (EACH) represents the interests of Central Counterparty Clearing Houses in Europe since 1992. EACH currently has 20 members from 15 different European countries and is registered in the European Union Transparency Register with number 36897011311-96.

This letter represents our shared response to the questions set out in the cover note to the CPMI-IOSCO Consultative report *Framework for supervisory stress testing of central counterparties (CCPs)* published in June 2017.<sup>1</sup> CCP12 and EACH appreciate the opportunity to comment on the proposed supervisory stress test (SST) framework and looks forward to continued engagement on the formation of the framework and any initial testing exercises.

CCP12 and EACH are supportive of the stated objectives for the SST initiative including the multi-CCP SST. As CPMI-IOSCO further develop the framework, we would like to draw attention to the following key recommendations.

1. **The objective of a SST (and multi-CCP SST) must be clearly defined ex-ante** to ensure that all stakeholders understand its purpose and to mitigate the risk of misinterpretation of any subsequent analysis or summary results. The consultative report states that “... the framework is designed to support SSTs conducted for the purpose of evaluating broad, macro-level impacts rather than assessing the adequacy of resources at specific CCPs”. We agree with this objective and suggest it be further reinforced and expanded to state that SSTs are not intended to supersede a CCP’s internal stress-testing framework in terms of assessing individual resilience.<sup>2</sup>
2. **The design of a SST (and multi-CCP SST) is inherently complex and should be carefully considered.** SST design should be subject to stakeholder engagement and rigorous assessment by practitioners with the necessary knowledge and expertise in cleared markets. There is no “one-size-fits-all” approach to CCP stress-testing, not least on account of acknowledged differences among jurisdictions, cleared markets and CCP structures that are, collectively or individually, likely to

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<sup>1</sup> <http://www.bis.org/cpmi/publ/d161.htm>

<sup>2</sup> The PFMI (<http://www.bis.org/cpmi/publ/d101.htm>) and *Resilience of central counterparties (CCPs): Further guidance on the PFMI* (<http://www.bis.org/cpmi/publ/d163.htm>) set out detailed guidance on CCPs’ internal stress-testing frameworks.

impact comparability.

3. **The SST framework must be subject to coordinated initial testing exercises (or market simulation) over a phase-in period to ensure intended objectives are reached without “second-round effects”.** Because of the complexity of a CCP SST, it is advised that the initial SST design be based on macro scenario(s) and/or event(s) initially, or during a testing phase prior to formal adoption, to assess the appropriateness of SST framework assumptions.

SST framework assumptions should be subject to initial assessment and routine re-assessment including consultation with stakeholders.

CCP12 and EACH encourage CPMI-IOSCO to consider jurisdictional SSTs that have been set out by the CFTC and ESMA to leverage SST framework considerations (as and where appropriate) and data collection templates that have already been set out. The frequency of a CPMI-IOSCO SST should not be more frequent than annually and it should incorporate consideration to existing jurisdictional SSTs.

4. **CCP12 has formed a subgroup on SST and would be interested to engage with CPMI-IOSCO** on an ongoing basis during the initial design of the SST framework and periodically for any SST framework re-assessment provisions.
5. **Data required to perform stress-testing is subject to confidentiality provisions and will require legal and regulatory assessment.** Consistent with the concerns raised in the consultative report, any data sharing is subject to agreements between the CCP and its clearing participants and the regulatory framework for each jurisdiction. Where the requisite confidentiality and regulatory arrangements have been made (or amended, where required), any results or summary analysis must not disclose (directly or indirectly) the identification of any particular clearing participant. Where public disclosure is anticipated, CCP12 and EACH would recommend that any results or summary analysis be subject to review and comment by stakeholders (notably, the CCP and its direct regulator). When publicly disclosing results from a SST, CCP12 and EACH suggest that authorities give clear explanations regarding the specific purpose, methodologies, and the reasoning behind any design choices which differ from the expectations set forth in the Principles for financial market infrastructure (PFMIs).<sup>3</sup>

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<sup>3</sup> Question 5.c of “Key areas for stakeholders feedback” in the cover note of the consultative report

CCP12 and EACH support the efforts to establish a high-level framework for a SST (and multi-CCP SST) and agree that such effort can complement parallel efforts to assess interdependencies in clearing as set out in the CCP Workplan<sup>4</sup>. We believe that CCPs must play an integral role in the design, implementation and ongoing re-assessment of the SST framework. Therefore, we encourage and look forward to further engagement with the committees to ensure that an appropriate framework is adopted.

The following pages include our response to the specific questions that have been outlined in the cover note.

If there are any questions or areas in which we can further elaborate, please contact the undersigned.

Sincerely,



Lee Betsill  
Chairman, CCP12



Simon Turek  
Chairman, EACH

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<sup>4</sup> <http://www.bis.org/cpmi/publ/d165.htm>

## CCP12 and EACH Response to the Key areas for stakeholder feedback

### 1. Objective and purposes of multi-CCP tests (see Introduction and Element 1.i)

- a. Is the framework clear with regard to the objective that a multi-CCP SST is intended to achieve, specifically to analyse the broad, macro-level impact of a common stress event on a set of CCPs?

CCP12 and EACH support the macro-prudential focus of a SST as described in the proposed framework (paragraph 5). The multiple-CCP SST should focus on assessing broad, macro-level impacts such as potential systemic effects associated with multiple CCPs responding to a common stress event(s). However, we believe it would be inappropriate to infer adequacy of resources at specific CCPs which is measured by internal stress-testing governed by the CPMI-IOSCO PFMI. Therefore, we agree with the reference in the proposed framework (paragraph 10), that the SST with a macro-level focus would not be a sound basis for direct comparisons of resilience across CCPs. However, this language is inconsistent with other paragraphs that discuss the purpose of a SST. For example paragraph 7 states that the “assessment of the resilience of a particular CCP under a specific stress scenario(s)” could be a SST objective. The guidance should provide a clear distinction between the purpose and objective of a SST and a CCP’s internal stress testing framework that is tailored specifically to the profile of the CCP consistent with the detailed regulatory guidance of the CPMI-IOSCO PFMI. The CPMI-IOSCO PFMI state that CCP internal stress testing is explicitly designed to measure exposures to ensure the sufficiency of financial resources of an individual CCP. We suggest that any reference to using the SST as assessment of the resilience of a particular CCP be removed to mitigate the risk of misinterpretation (not least in order to align with the macro-prudential objective stated in paragraph 7).

We agree with the framework that the purpose of a SST must be clearly defined and understood ex-ante by all stakeholders. The purpose of a SST should be made clear to stakeholders including: participating and non-participating authorities, CCPs, clearing members and clearing member clients, as well as any other members of the private and public sector (as recognised in paragraph 23). The purpose will influence each component in the framework, the way in which it is utilized in jurisdictions, as well as the results and conclusions that can be drawn from a SST.

- b. Do potential users of the framework consider that its structure and content, including the design tool in Annex A, are adequate to facilitate and support them in designing and running a multi-CCP SST to meet the stated objective?

CCP12 and EACH appreciate the proposed framework and the design tools which have set out the right considerations of a SST. More importantly, feasibility should be taken into consideration to ensure the aimed purposes of the SST are realistic and achievable.

In this regard, the involvement of CCPs, as key stakeholders and experts in the cleared markets, is critical throughout the entire process including for example, design of the framework and review –from defining the objectives and designing the SST as well as reviewing and disclosing results. Considering the complexity and differences among CCPs globally on account of, for example, business structures, cleared product sets and legal and regulatory regimes, it is recommended that the SST starts with a straight-forward design and an intuitive high-level purpose. In this context CCPs’ expertise of internal stress testing could be valuable for analysing the feasibility of a SST.

CCPs’ internal stress test procedures, in compliance with the existing regulation, have reached a level of efficiency and automation that ensures the daily monitoring of risk exposures to which a central counterpart is exposed to. Acknowledging that authorities need to assess potential macro level risk exposures may not completely overlap with the needs of CCPs when performing internal stress tests, we would like to point out that any significant departure, with respect to the existing

methodologies, can have a significant resource cost to the CCPs involved in the simulation. We would like to express our opinion that the simulation methodologies of past stress tests should be considered as a useful starting point and should be re-employed as much as possible. In particular, the inputs used and the outputs calculated should remain stationary and flexibility would be concentrated on scenario definition. This would leverage on the implementations, data manipulation, risk exposures identification and scenario construction done in the past while improving the existing methodologies.

- c. Do potential users of the framework consider that it is sufficiently flexible to accommodate different authorities with varying responsibilities, legal frameworks, expertise and resources?

CCP12 and EACH would like to emphasize the benefits and practicality of a principles-based framework which is set at a global level. The SST developed by authorities based on the framework would need to accommodate all applicable legal and applicable financial market and clearing regulations, participating CCPs' diverse structures, risk profiles and heterogeneous markets/products served. While these differences are acknowledged in the consultative report, we believe that they are likely to impact comparability across markets and jurisdictions. Hence in the context of an across multiple jurisdiction SST, the application of the principles in the framework should be consistent across all authorities involved.

- d. What do stakeholders consider to be the benefits or other implications from a multi-CCP SST?

SSTs can be conducted to analyse potential systemic effects associated with multiple CCPs responding to common stress event(s), to identify the nature and magnitude of interdependencies and concentration of risks.

- e. Remaining cognisant of confidentiality concerns and the potential need for aggregation and anonymisation of test results, how do stakeholders anticipate using the results of SST exercises?

From the CCP's perspective, the result could be helpful to better understand system risks in the clearing ecosystem and the impacts to CCPs globally for macro events.

From the regulator's perspective, we agree that the objectives should be related to the macro-prudential orientation, the identification of the nature and magnitude of interdependencies and concentrations.

## 2. Scope and frequency of SST exercises (see Element 1.ii, iii)

- a. How can the authorities best strike a balance between the usefulness of SST results and the potential resource burdens and costs to themselves, CCPs and other stakeholders associated with conducting a SST exercise?

CCP12 and EACH agree with the concerns raised in the consultative report (paragraphs 29-35) that the framework will need to achieve a balance between the usefulness of a SST and the resource burdens to prepare, carry out and analyse.

As described in consultative report (paragraphs 30, 31, 34), the scope of CCPs to be included and the frequency and timing of the SST depends on the purpose of the SST. We agree that given the purpose of the SST, authorities may choose only a subset of CCPs into an SST, or if the major design parts remain unchanged, allow for increased time interval between tests in order to reduce potential resource burdens. As many of our members are systematically important CCPs in multiple jurisdictions, there is regulatory interaction with both domestic and foreign supervisors (in some cases related to existing jurisdiction stress testing exercises). Therefore, we believe that governance arrangements in terms of the scope and frequency of SST exercises must be discussed and agreed ex-ante, in order to avoid what might be become the

requirement to perform multiple stress testing exercises each year with multiple regulators. It is also important to mention that coordination between authorities would avoid that there are different exercises performed on the same CCPs at the same time.

**In particular:**

i. What would be an appropriate frequency for conducting SSTs?

Given the complexities associated with the design, implementation and performance of a SST, CCP12 and EACH believe that it should not be more frequent than once a year for a single CCP.

As stated in paragraph 33, the proposed framework highlights that authorities should “take into account the resource cost associated with running a test and the potential incremental benefits associated with the test’s purpose.” As stated in paragraph 32, the frequency for conducting SSTs depends on factors such as changes in the structure and composition of the participant base, changing market conditions, and resource constraints. The proposed framework acknowledges that the SST process is complex and is anticipated to take several months to prepare and perform requisite analysis.

CCP12 and EACH propose that authorities implement a phased approach to the SST framework. It would be beneficial for the first phase to be based on macro scenarios and events which could be further expanded after all stakeholders have been able to assess the design and results. We believe that the SST framework should allow for continuous feedback from direct stakeholders (CCPs, clearing participants, etc.) and changing market environments that will help ensure the SST framework is remains relevant and flexible.

If authorities intend to establish SSTs on a regular basis, we expect that CCPs would be informed about such intentions ex-ante in order to plan for capacities and resources. Especially, if global regulators plan for SST exercises that span multiple years and involve multiple authorities, we believe such efforts should be consulted with CCPs’ in order to best coordinate the optimal approaches. We support that a pre-determined, multi-year global SST work plan will help stakeholders to prepare adequately and fit together with other activities like the central clearing Interdependencies analysis and the global fire drills. To allow for adequate preparation by CCPs and other participants, authorities should allow an appropriate amount of time for CCPs or other market participants to produce deliverables related to the SST. There should be an avenue for CCPs and other participants to get extension on such requests, taken into account constraints on CCPs’ resources and potentially extensive data processing work.

By designing stress tests with equal features, it would be possible to increase the automation of CCP clearing systems and reduce the resources and the manual work necessary. This would require technical developments that require time to be implemented. Such automation can be achieved in different modules having each stress test contributing marginally with new specific functionalities to be built on top of the existing architecture. Such an approach would considerably improve the ability to perform stress test in the long run and allow a higher frequency of execution. For this approach to be effective a good communication between Authorities and CCPs is necessary in order to identify which specific aspects of the stress test are best suited to be automated (e.g. record data extraction, single positions exposure calculation).

ii. Would the use of multiple reference dates sufficiently increase the information provided by a SST exercise to justify a higher resource cost?

In the determination of the SST reference date, quarter-end is recommended as it would align to existing reporting periods, analysis and disclosures. This approach would ease the comparison among CCPs for authorities and reduce resource burden on CCPs in data collection.

CCP12 and EACH believe that for simple scenario, multiple reference dates maybe appropriate, however for complex scenarios, multiple reference dates would greatly increase the complexity of the exercise and resources burdens on CCPs.

### 3. Involvement of CCPs and other stakeholders (see Element 1.iv; Element 2.i, ii)

- a. What level of engagement would CCPs and other stakeholders expect to have in the design of an SST exercise? Please explain whether the level of engagement is likely to depend on the particular purpose or design of the SST. How might stakeholder feedback best be sought?

CCP12 and EACH believe that the involvement of stakeholders is key in assuring feasibility, effectiveness and credibility of a SST. We would expect the involvement of relevant parties including clearing members, clearing member clients and CCPs. We suggest that small working groups made of regulators, CCPs, clearing members is an effective way to ensure the involvement of key stakeholders, while minimizing the potential for having too many participants involved in the SST exercise. It is reasonable to assume that CCPs would have the most involvement as CCPs have accumulated rich experience in their internal stress testing. We agree with the text in consultative report (paragraph 59) that CCP involvement would enhance the quality of outputs, balance the resource burden of the exercise, and leverage the expertise and operational capabilities of CCPs.

To ensure the feasibility of established objectives, the involvement of CCPs is critical to the design of the SST. CCPs' expertise with the identification of risk exposures, sources of risks, specifying stressed scenarios and related risk factors identified in the internal stress testing would be invaluable to the SST design, as many different assumptions embedded in stress testing have evolved with the experience and market characteristics of the respective cleared market.

- b. Which roles and responsibilities should CCPs assume – or would CCPs expect to assume – in the design and running of an SST?

Identification of risk exposures: As CCPs have already identified the comprehensive risk exposures based on their particular cleared market, it would be easier for authorities to consult and collaborate with individual CCPs.

Identification of risk sources: We agree that Table 1 that follows paragraph 77 identifies many of the core risk factors to include in an SST. However, some of these factors might be challenging to implement, and “the inclusion of a larger set of risk sources may, however, lead to increased modelling complexity or model risk” (paragraph 80). We therefore suggest that CCPs be allowed to provide comments on the suitability of risk sources when forming the SST.

Specifying scenarios: Paragraph 94 provides a “bottom up” approach to specifying stress scenarios, which is to build directly from the CCPs’ internal stress testing scenarios. We agree that this approach can leverage on CCP’s expertise on stress scenarios, and inherently determine the approach to selecting core risk factors and calibrating the shocks to these factors. However, authorities may face challenges to validate these scenarios and ensure internally consistent and plausible under this approach. Therefore CCP12 and EACH recommend authorities to apply a “top down” approach at initial stage of implementing the SST framework.

Data collection: CCPs’ involvement is also critical in the data collection process to assess the suitability of the SST data template. To ensure the quality and comprehensiveness of data collected across numerous types of CCPs, CCP12 and EACH believe that regulators should consult and leverage CCP expertise on the design of SST data templates, with consideration to

existing templates set out in jurisdictional SST efforts (i.e. CFTC and ESMA). CCP12 and EACH welcome further engagement in the data collection process and design of the SST data template. The CCP Public Quantitative Disclosure template designed by CCP12 (please see attached the template) can serve as a reference to the SST data format and output display. The CCP12 template is designed in accordance with the CPMI-IOSCO Public quantitative disclosure standards for central counterparties (<http://www.bis.org/cpmi/publ/d125.htm>), to promote a unified format across global CCPs. This CCP12 template has been recognised by CPMI-IOSCO and widely used by CCPs globally.

Application of scenarios to exposures: Moreover, provided that the stress scenarios are reasonably implemented within the CCP stress testing system, we are of the view that the CCPs should be responsible to run the SSTs results. Indeed, we assume it would be too costly and burdensome for regulators to replicate the account structure and the aggregation rules of a CCP, which are necessary to generate reliable stress test results. We also believe that a consistent representation of segregation models across CCPs should be determined ex ante in the early stage of an SST exercise. This gets even more important once multiple jurisdictions are involved.

Analysis of results: In considering the review of SST results, CCPs' involvement is also necessary to ensure that relevant information and results are interpreted in the correct manner and consistent with the objectives of the SST framework.

Extrapolating the shock to other (non-core) risk factors: non-core risk factors need to be properly identified and their relevance evaluated. CCPs expertise can be leveraged in identifying the most relevant non-core risk factors as well as modelling relative shocks. Considering every non-core risk factor may make the stress test more demanding without an equivalent increase in accuracy. The CAPM approach proposed in the document to calibrate shock for non-core risk factor although intuitive and relatively easy needs to be developed and integrated with the current internal stress test methodology that does not consider it. Such an approach will be particularly sensitive to the kind of assumptions that are made about the core risk factor used to calculate the beta coefficients.

Specifying defaults or failures: The impact of defaults of clearing participants for what concerns credit risk depends on the different structure of the default waterfall in place at the different CCPs and they need to be taken into account when determining potential credit losses. In the case of sequential defaults, recovery plans procedure for the establishment of new default funds may be triggered. This fact would add complexity to the test. Clear guidelines need to be defined by Authorities and CCPs. Additional management actions occurring between the default of clearing participants need to be identified and discussed properly in order to clearly define reasonable assumptions. Alternatively, CCPs may supply exposure data such as the participants' positions in the stress scenarios and the Authorities can perform analyses of the effect of default on risk exposures at an aggregate level.

Stress shift: Stress shifts should be derived by using well-founded models in conjunction with expert judgement however authorities should refrain from a pure expert judgement approach.

Treatment of resources: For credit stress tests, the default waterfall generally defines the exact order of how resources are used in covering the exposures. Such waterfall is described in the rulebook and is public. CCPs would require being consistent with such waterfall when determining exposures. For liquidity stress test the sequence in which resources are used may be a function of market conditions (having the most liquid sources such as central bank deposits used first) and therefore assumptions need to be shared. The determination of excess collateral need to be harmonized with the specific margin call procedure performed by each CCP and, assumptions are necessary to assign bond and cash excess collateral to the different asset classes when a single margin call for all the cleared markets is performed. Reasonable assumptions are also required and

would benefit from consultation when considering the possible actions of non-clearing participants and their effects on available resources. Any aggregation of single results on product level (i.e. aggregation of loss amounts) should be conducted by CCPs to ensure the correct implementation according to the CCP's rulebook. We would also recommend that the stress test framework should elaborate on differentiated treatment of different levels of client protection achieved with different segregation models (i.e. porting out of Net Omnibus models is less likely than porting out of individually segregated accounts).

- c. What safeguards would ensure that the independence of an SST as a supervisory exercise is maintained?

As stated in Element 1.iv, CCP12 and EACH support that authorities may seek feedback from a number of sources including CCPs and market participants on the design of a specific SST. In addition, as stated in paragraph 60, we agree that authorities shall consider establishing arrangements ex-ante to ensure that they retain control of the exercise and avoid relying too much on CCPs and market participants. For instance, authorities may set up a working group of internal and external experts coming from a wide range of institutions to ensure objective and independent views on the models used and scenarios submitted by CCPs.

#### **4. Information-sharing, data collection and data protection (see Element 2.iii, Component 4)**

CCP12 and EACH appreciate the attention to information sharing, data collection and data protection arrangements in an SST exercise. We believe that this is a fundamental consideration when setting out a multi-CCP SST framework and that it may require further supervisory governance arrangements with consultation to arrangements that may exist between CCPs and their participants (and the regulatory framework that underpins them). CCP12 and EACH believe that the corresponding paragraphs (paragraphs 49-53, 59-64, and 140-153) in the consultative report nicely outline the challenges.

- a. Do stakeholders perceive any legal or operational constraints on sharing the (individual/named) data required to support an SST exercise? Please describe.

If multiple authorities intend to conduct an SST together, CCP12 and EACH believe that arrangements (whether existing MOUs or new arrangements) that allow for information-sharing between authorities and others are required. We agree with that reference in the consultative report (paragraph 63) that it is unlikely for a single legal framework to be universally applicable among all authorities seeking to conduct an SST. Further, we agree with challenges noted (paragraph 64) that CCPs may have legal restrictions to share data. Therefore, it is suggested that authorities should consult with the CCPs and each respective supervisor on information-sharing permissions or arrangements.

Moreover, we recommend that the outcome of SST which multiple authorities have been involved should only be communicated in one mutual report and not multiple reports (avoiding that each involved authority reports separately).

- b. What arrangements do stakeholders consider could be put in place to enhance the effectiveness of data collection and to promote the quality and consistency of data? What are the potential limitations?

Given the objective and purpose of an SST, authorities could choose to leverage and supplement any existing information-sharing arrangements, or develop new arrangements that enhance the data collection process and promote the quality and consistency of data. The arrangements must clearly define: the granularity of data required, the intended use, who the information will

be shared, and how the results will be disclosed. Consistent with our comments above (response to 3b), required data should be collected in pre-established data templates. Authorities should seek input from CCPs when designing templates and we propose that existing templates be leveraged (where possible). New data requests raised by regulators as part of the SST exercise should include sufficient notification period (to allow for assessment and consideration to any automation/IT implementation) and be based on existing templates. To the extent permissible, we propose that cooperation arrangements between regulatory authorities be established to avoid repeated report of same general data by CCPs to different regulatory authorities.

In order to enhance quality and consistency data, we would suggest that the formats should be aligned with CCPs before starting the stress test.

c. What assurances would stakeholders seek if their data were to be used in an SST exercise?

We would like to emphasize that data from each CCP needs to be shared only with its primary regulator first. Data that is required to perform a SST is likely to be highly sensitive (for example, position-level information, or other relevant data including institution-specific third-party data), therefore the CCPs' primary regulators will need to take measures to anonymize the data to ensure that no clearing member, clients or other third party can be specifically identified.

d. What data protections and safeguards should the authorities put in place?

CCP12 and EACH recommend that any data collection and analysis related to SST be subject to strict industry standards and cybersecurity measures. Data and analysis should be subject to arrangements that govern data confidentiality and distribution. CCP12 and EACH agree with a combined approach described in paragraph 51-52 and paragraph 152. In an SST involving CCPs under different supervisory regimes, or multiple authorities, there needs to be the same level of encryption and security with data between regulators for the SST's as with the data that is shared between CCP's and the primary regulators (e.g., a memorandum of understanding may be established to facilitate information-sharing between multiple authorities).

e. The framework anticipates that CCPs will be a primary source of data for many SSTs. Is this an accurate assumption? Do stakeholders agree that this approach is generally likely to be most efficient from an operational and confidentiality perspective? Are there other potential sources of data? If so, what other data sources could be relevant for conducting an SST and what guidance would be useful to provide to authorities?

CCP12 and EACH agree that the primary source of data will be CCPs, however such data should be shared only to their primary regulator to further facilitate the SST. Such a process is the best and most efficient way from an operational and confidentiality perspective.

## 5. Technical content of the framework (see Components 3 and 5)

CCP12 and EACH agree that Component 3 and 5 of this framework provide a clear and comprehensive list of steps to develop stress scenarios, aggregate results and develop analytical metrics, and draws out a number of important considerations for authorities.

a. Do stakeholders have any comments on the technical content of the framework, including but not limited to the guidance on setting extreme but plausible scenarios, identifying core risk factors, calibrating shocks, extrapolation, identifying defaults/failures, aggregation procedures and metrics?

CCP12 and EACH believe that the SST should first start with a simplified and straightforward approach to help all stakeholders gain experience and have a clear understanding of the

purpose, methodologies and results. For instance, given the complexity of correlation between markets and the divergence of market characteristics across jurisdictions, we suggest to begin the calibration of stress scenarios from macro-level shocks (such as a macro-shock in some market segment). The SST could then assess the impact across all cleared markets for scenarios on individual risk factors to increase adaptability of the stress scenarios across CCPs.

When designing a SST, CCP12 and EACH believe that regulators should consult and leverage CCP expertise in order to derive an appropriate approach to, for example, setting extreme but plausible scenarios, identifying core risk factors, and calibrating shocks. For instance, CCP12 and EACH agree with the approach described in paragraph 94 that states:

*“...authorities could consider an approach that is built directly from in-scope CCPs’ internal stress testing scenarios. For instance, each CCP could be requested to submit to the authorities the details of a specified number of its most severe scenarios. These could form the basis for the common suite of scenarios to be applied across all of the in-scope CCPs, suitably extrapolated to capture risk factors relevant to each CCP’s specific product set and exposures. Such an approach would not only frame the scenarios, but also inherently determine the approach to selecting core risk factors and calibrating the shocks to these factors.”*

When framing the stress testing scenarios, CCP12 and EACH agree that numbers in these scenarios shall be consistent with the stated objective of the SST, which is to analyse the collective response of a set of CCPs to common stress events rather than an individual CCP’s resilience. For recurring SST we agree with the approach as described in paragraph 94 to identify appropriate supervisory scenarios. It should be noted that supervisory scenarios are designed to reflect collective response and will not be used to determine and compare the adequacy of the default resources of the CCP. The approaches shall be communicated to CCPs and stay (more or less) consistent over time.

When applying extreme price changes on a product, CCP12 and EACH believe that consideration should be given to whether the largest historical price move is still appropriate under the current macroeconomic environment. If necessary, historical scenarios should be tailored to the current economic conditions.

In terms of specifying the timing of defaults or failures, between the two options stated in paragraph 137, we agree with the view in paragraph 138 that assuming simultaneous defaults would, on balance, be a suitable approach for the SST.

- b. In designing an SST, what should authorities consider when determining which risk sources and risk exposures to include? How can authorities balance the need for sufficient content with burden?

The consideration to balance the need for sufficient content with burden shall be put under the context who undertakes the work to apply scenarios and calculate SST results. Based on this premise, CCP12 and EACH suggest the components of a scenario should be chosen with the use the current CCP infrastructure in mind as much as possible. Where the SST would require enhancements to the CCP infrastructure or risk system, the regulators should have a reasonable expectation about the capacity and timeline to perform such enhancements. Indeed, implementation of a SST framework will require a cost investment by the CCP as well as an ongoing cost related to increase the CCPs costs and therefore these costs should not be excessive compared to other risk management functions.

- c. In designing an SST, authorities may (need to) make design choices that differ from the expectations set forth in the PFMI and further guidance on stress testing practices by individual CCPs. Do CCPs foresee issues if authorities proceed in a manner that differs from approaches

taken by individual CCPs in their own stress tests? What trade-offs would the authorities need to assess when making those design choices?

Given the specific purpose of an SST, notwithstanding concerns noted in our response to the above questions regarding resource requirements and utilization of SST results, we recognise that it may be possible that authorities make design choices which differ from the expectations set forth in the PFMI. However, when publicly disclosing results from a SST, CCP12 and EACH suggest that authorities give clear explanations regarding the specific purpose, methodologies, and the reasoning behind such choices. Further, given that CCP's have aligned their stress testing to conform to PFMI expectations, we would expect that these instances that would need to divert from those expectations would be very few and would include involvement with the CCP's to strike the appropriate balance on resources and comprehending the resultant output.

- d. What is an appropriate number of scenarios to include in an SST? What factors should authorities consider when determining the number of scenarios to apply?

CCP12 and EACH agree that more than one scenario might be developed to potentially increase the information that can be gained from the SST. As stated in prior paragraphs, SST scenarios shall focus on macro level shocks in order to analyse the collective response of a set of CCPs to common stress events. However the number of scenarios should be limited and depend on the SST's purpose. Considerations should be given in order to reach a balance between resources burdens and usefulness of an SST scenarios.

## **6. Use of SST results and disclosure (see Component 6)**

- a. Do stakeholders have views on disclosure of the results of an SST? Are there circumstances in which results should not be disclosed publicly?

As stated in paragraph 196, CCP12 and EACH strongly agree that “the benefits of broad disclosure must be balanced against the need to protect sensitive data and avoid market impacts, and to ensure consistency with each authority's legal mandate”. In particular, any analysis and disclosure should not directly state or allow for any inference to an individual participant, even in an anonymized manner as the identities of a CCP or clearing member can often be easily detected (or backed into).

Further, CCP12 and EACH recommend that the results for clearing members or CCPs are in the aggregate, showing collective response in an anonymized manner.

Results should not be presented in a way that comments on any individual CCP's sufficiency of financial resources.

- b. Remaining cognisant of confidentiality concerns and the potential need for aggregation and anonymisation of the results, what types of disclosure would stakeholders find most useful?

The scenarios employed in the SST and the method of how these scenarios are expected to reveal market conditions should be disclosed. SST exercises bring good opportunities to have conversations with regulators and learn from the results to see if something could be added in the continuous improvement of the CCP's risk models and internal stress testing frameworks.

### Attachment

CCP12 data template for Public quantitative disclosure standards for central counterparties