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Submitted electronically

CPMI Secretariat
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Re: ***Consultative Report on Framework for Supervisory Stress Testing of Central Counterparties (the "Consultative Report") by the Committee on Payments and Market Infrastructures ("CPMI") and the Board of the International Organization of Securities Commissions ("IOSCO")***

Dear Secretariats:

Vanguard[1] appreciates the opportunity to provide comments to the CPMI and IOSCO on the Consultative Report setting forth principles for the establishment of supervisory stress testing ("**SSTs**") of central counterparties ("**CCPs**").

In multiple forums in recent years, Vanguard has consistently called on global regulators to address risks related to the interdependencies between CCPs, clearing members, clearing participants, cleared products, liquidity providers, service providers and each party's jurisdictional legal constructs (collectively, "**Interdependencies**"). We applaud CPMI and IOSCO in developing the Consultative Report as a means to highlight the issue for local regulators and to provide a thoughtful and thorough analysis and approach for use in developing multi-CCP SSTs. We likewise welcome the study[2] of such Interdependencies in the cleared products markets recently completed by global regulators to emphasize the importance of the issue through robust data collection and analysis.

As a part of prudent management, Vanguard funds enter into derivatives contracts, including swaps and futures, to achieve a number of benefits for our investors, including hedging portfolio risk, lowering transaction costs, managing cash, and achieving more favorable execution compared with traditional investments. Vanguard has been fully supportive of global derivatives regulatory reform, including the mandate of the derivatives title of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "**Dodd-Frank Act**"), to bring much-needed transparency and regulation to the derivatives markets, including subjecting derivatives to

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[1] Vanguard is a global asset manager that offers more than 370 funds with aggregate assets of approximately $4.5 trillion.

[2] Basel Committee on Banking Supervision ("BCBS"), CPMI, the Financial Stability Board ("**FSB**") and IOSCO, *Analysis of Clearing Interdependencies* (5 July 2017), *available at*: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD570.pdf (the "**Interdependency Study**").

regulatory oversight and requiring the reporting, margining, and central clearing of standardized swaps, and exchange-trading of the most liquid standardized swaps (collectively, "**Derivatives Reforms**").

Our support for the central clearing of standardized swaps has been tempered by the reality that for market participants in general, and clearing members and fund complexes specifically, the magnitude of certain risks associated with central clearing can be less than fully transparent and difficult to assess. While we benefit from a close dialogue with the clearing houses we utilize, and the informed confidence such dialogue provides, others have more limited access and few, if any, have a detailed and clear understanding of the risks associated with Interdependencies.

Our consistent recommendations to global regulators to strengthen cleared markets include:

1. **Increased Funding**: Tightening minimum CCP funding requirements and risk management processes by requiring risk-aligned CCP capital contributions and prefunded clearing-member contributions;

2. **Disclosure of Performance Against Benchmarks**: Requiring CCPs to provide expanded public disclosure that is reliable, readily available, and comparable by implementing "benchmarking" stress tests and, to the extent the confidential nature of trading data allows, publically disclose the results of such stress tests so that market participants can make informed decisions as to the CCPs they utilize;

3. **Protect Customers in Recovery**: Mandating that when a CCP is in recovery, CCP standards must provide for full protection of customer assets and prohibit the use of non-defaulting customer variation margin, initial margin, and the haircutting of positions; and

4. **Regulatory Oversight of Resolution**: Agreeing that when a CCP is in resolution, such resolution must be managed and supervised by a designated authority with clear protocols for the closing or porting of customer positions, robust protection for customer collateral, and application of the "no-creditor-worse-off" standard.

With respect to this Consultative Report, Vanguard asserts the main benefits of multi-CCP SSTs include: a) the establishment of a comprehensive systemic cleared market risk assessment; b) affording participants with a greater level of CCP comparability with common metrics and performance benchmarks; c) providing for the consistent interpretation and assessment of Interdependencies; and d) enabling the measurement of progress in risk mitigation with respect to such Interdependencies. Our comments on the Consultative Report focus on the following main themes regarding multi-CCP SSTs:

1. **Consult Diverse Constituents**: The approach used to formulate and deploy multi-CCP SSTs, to assess test data, and to remediate conditions prompted by such assessments, must involve the solicitation of views from diverse market participants, including, especially, market participants mandated to utilize CCPs to clear swaps;

2. **<u>Establish Performance Benchmarks as Triggers for Remediation</u>**: In addition to the requirement for local regulators to apply comparable testing approaches, they must also be required to establish reasonable threshold performance benchmarks and comparable triggers for the application of remediation methodologies to the conditions identified by the results of such multi-CCP SSTs;

3. **<u>Address a Sequence of Scenarios</u>**: Multi-CCP SSTs must require assessments based on a sequence of scenarios including deteriorating market conditions and declining participant health rather assess static scenarios targeting individual weaknesses;

4. **<u>Expand the list of Interdependencies</u>**: The list of interdependencies to be considered for assessment must be expanded to include: specific markets and products cleared; currencies in which such products are cleared; the number and concentration of CCPs, clearing members, and other participants; the commonality of liquidity providers across CCPs as well as the interrelationships between such providers and other market participants, including clearing members; and the commonality of service providers, including custodians, across CCPs as well as the interrelationships between such providers and other market participants;

5. **<u>Annual and Ad-Hoc Testing</u>**: Multi-CCP SSTs should be required at least annually with ad-hoc testing as warranted by deteriorating market conditions and declining participant health; and

6. **<u>Disclose Results and Remedial Action</u>**: Multi-CCP SST results must, to the extent possible with appropriate anonymization, be publicly disclosed with specific disclosure of remedial steps required and taken, if any.

The reason such tests are so important is that as regulators mandate the use of cleared markets, they must also facilitate the ability of participants to make informed decisions as to the level of usage, the clearing partners with which they engage, and the level of risk raised by such engagement. While central clearing, particularly with respect to futures and options, has been demonstrated to be relatively more secure and stable than bilateral over-the-counter trading, given many swaps have relatively less liquidity and relatively more volatility than futures and options, regulatory oversight of and public disclosure of the risks involved in the cleared ecosystem must be enhanced to better ensure a stable, resilient market.

At present, clearing members and participants are at best able to gather limited data, to extrapolate potential positions and exposures from such data, and to make informed assumptions as to the risks presented with respect to specific products, clearing members, clearing houses and the legal constructs within which they operate. Vanguard appreciates that global regulators, such as the CPMI and IOSCO, continue to demonstrate that these issues are taken very seriously and value the benefit of enhanced stability to be achieved through regulatory oversight of CCPs appropriate to such a mandated, expanding, less liquid, and more volatile cleared market.

While some may argue these tests are cumbersome, expensive to implement, and challenging with respect to the navigation of cross-border privacy and confidentiality laws, we assert that it is fundamental that the risks associated with respect to Interdependencies be identified, evaluated and addressed given the reliance of Regulatory Reforms on the cleared market architecture. The increase in clearing facilitated by regulatory mandates may also lead to the increased probability that an individual weakness would cascade across cleared markets and participants instead of remaining quarantined and isolated within an individual custodian, lender, legal construct, currency, product, participant, clearing member and/or CCP. A number of clearing members and participants are already estimating the impact of such risks and, ideally, CCPs should also already be including such considerations in their normal ongoing stress tests and analysis. For these reasons, we encourage the CPMI and IOSOC to resist calls to delay or weaken the proposals in the Consultative Report and to instead press on with the iterative process of developing multi-CCP SSTs.

We have reviewed the six components of the Consultative Report's framework and have the following specific comments:

Component 1: Purpose and Exercise Specifications:

- Expand the list of interdependencies between CCPs, clearing members and participants when assessing scope (cross-participant exposure, common liquidity providers, etc.);
- Add consideration of non-default losses (custodial / investment) and their likelihood given SST results;
- Add the concept of remedies so that regulators are required to identify minimum conditions for which certain remedies (recovery / resolution) may be applied – this should be an integrated part of the purpose statement to move it from more of an academic exercise and to provide clarity and consistency to clearing members and mandated market participants around such remedies including:
    - Calls for clearing member unfunded default fund contributions;
    - Calls for additional margin from clearing participants;
    - The use of margin across cleared products not otherwise netted within a CCPs clearing methodology;
    - The use of variation margin gains haircutting;
    - The use of initial margin haircutting; and
    - The use of position closeouts;
- Establish minimum standards with respect to a CCP's expected performance in multi-CCP SSTs to establish consistency, comparability and transparency for the benefit of CCPs, clearing members, and mandated participants operating across multiple jurisdictions (each of which could have its own SST);
- Credit risk and liquidity risk must be complimentary areas of focus with liquidity SSTs assessing the extent to which credit resources are readily available;

- Incorporate multi-CCP SSTs into overall CCP regulation to facilitate the identification of minimum performance thresholds whereby the regulator can require remedial action (e.g., enhancements to risk management, market practices, capital contributions, etc.);
- Consult with clearing members, mandated participants, and cleared market experts before (design), during (execution) and after (results and action) testing to provide enhanced independence from, and minimize conflicts with, guidance from CCPs;
- Require multi-CCP SSTs to be run at least annually, and also on an ad-hoc basis prompted by market stresses and participant weaknesses;
- Use multiple reference dates for testing to minimize deceptive practices (e.g., quarter end, year end, ad hoc dates and market-relevant dates (settlement / intra-day when relevant));
- Emphasize the need for a high level of consistency (regulatory coordination and cooperation) across jurisdictional SSTs to minimize inefficiencies and to promote comparability.

Component 2: Governance Arrangements and Component 4: Data Collection and Protection:

- Consult with clearing members, mandated participants, and cleared market experts before (design), during (execution) and after (results and action) testing to provide enhanced independence from, and minimize conflicts with, guidance from CCPs;
- Conduct consultations both in group and private settings to better yield frank feedback;
- Ad-hoc stress scenarios should not be designed solely from input by CCPs nor disclosed to the CCPs ahead of the test;
- Emphasize that the ultimate responsibility for designing stress scenarios must be with the regulators;
- Data obtained from tests should be anonymized where possible without compromising the utility of the test;
- Establish a mechanism for regulators to validate data received from CCPs, clearing members, participants and liquidity and service providers to ensure integrity;
- Tailor data required to purpose of test to avoid inefficient procurement of irrelevant data;
- Data confidentiality must comply with data privacy laws jurisdiction by jurisdiction depending on location of CCP, clearing member, participant, etc.;
- Information security is critical and must be fully implemented before data is shared;

- Consideration must be given to require case-by-case approval of data sharing based on purpose, use, recipients, raw v. anonymized, etc., including safeguards addressing:
  - Transparency of protection methodology;
  - Direct sourcing of data from clearing members or participants (rather than through CCPs or clearing members);
  - Consider the merit of requiring confidentiality agreements involving CCPs, clearing members, and participants with recourse against disclosing party;
  - Restrict data usage to prescribed purpose;
  - Require secure communication channels to be provided and maintained;
  - Require encryption where possible and permitted;
  - Cyber risk must be fully addressed by data users including regulators;
  - Data storage, transportation, access, retention and disposal must be addressed;

Component 3: Developing Stress Scenarios and Component 5: Aggregating Results and Developing Analytical Metrics:

- Address the default of the two largest clearing members for each CCP together with default of largest clearing member across CCPs;
- Address correlations when identifying defaulting clearing members (e.g., clearing members that have been downgraded or have sizeable credit default swap spreads);
- Address the implications of CCP assessments on non-defaulting clearing members;
- Calibrate shocks, look at intra-day moves, target extreme but plausible scenarios with plausibility informed both by previous market experiences and potential future experiences;
- Incorporate a variety of stress scenarios (directional v. diversified) and levels (baseline, adverse, severely adverse);
- Test for assumed correlations that may degrade in stressed situations;
- Emphasize sequential defaults over instantaneous defaults;

Component 6: Use of Test Results and Disclosure:

- Disclosure to participants should include:

- Losses of clearing member (and affiliates) across multiple CCPs where the clearing member (and its affiliates) participates relative to the funded contributions provided by the defaulting clearing member;

- Sufficiency of defaulting clearing member's margin collateral;

- Sufficiency of defaulting clearing member's total collateral (e.g., initial margin and guarantee fund contribution);

- Sufficiency of CCP funded protections;

- Sufficiency of CCP funded protections and assessments;

- Losses of clearing member (and clearing member family) across CCPs

Vanguard supports the overall objectives of the Consultative Report and is pleased to provide recommended improvements based on our deep understanding of cleared markets, of the appropriate risks to target, and of the best means to target those risks. In addition to formulating and executing robust multi-CCP SSTs, we view it to be especially important that the CPMI and IOSCO move toward the establishment of minimum benchmark performance standards and couple such standards with defined triggers for the execution of key remedial action. The disclosure of test results, performance against benchmarks, and required remedial action will help provide mandated participants the data to make informed decisions with respect to the prudent level of cleared activity and the products, parties and jurisdictions with which to engage. It is our belief that through implementing our proposed changes, the CPMI and IOSCO can better achieve the objectives in fostering a robust and resilient cleared marketplace.

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We appreciate the opportunity to comment on the CPMI and IOSCO Consultative Report. If you have any questions about Vanguard's comments or would like any additional information, please contact William C. Thum, Principal, at (610) 669-9823 or william_thum@vanguard.com.

Sincerely,

/s/ Gregory Davis
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and Chief Investment Officer
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/s/ Rodney Comegys
Principal and Head of IMG Risk Management
Vanguard