

December 13, 2013

CPSS Secretariat  
Committee on Payment and Settlement Systems  
Bank for International Settlements  
Sent by email: [cpss@bis.org](mailto:cpss@bis.org)

IOSCO Secretariat  
International Organization of Securities Commissions  
Sent by email: [gdisclosure@iosco.org](mailto:gdisclosure@iosco.org)

***Re: CPSS-IOSCO Consultative report: Public quantitative disclosure standards for central counterparties***

Dear Secretariat:

This letter contains the response of the International Swaps and Derivatives Association (ISDA)<sup>1</sup> to the Committee on Payment and Settlement Systems (CPSS) and International Organization of Securities Commissions (IOSCO) (together, “CPSS-IOSCO”) consultative report, *Public quantitative disclosure standards for central counterparties* issued for comment on 15 October 2013.

We support the aim of CPSS-IOSCO consultation to increase the depth and consistency of quantitative disclosure related to central counterparties (CCPs) to allow stakeholders to more comprehensively understand, evaluate and manage the risks inherent with their participation at any given CCP. We believe that more detailed and standardized quantitative data, available consistently across CCPs, will foster greater interaction between CCPs and their clearing participants<sup>2</sup> that will promote more robust risk management practices and allow clearing participants to more effectively assess, monitor and manage CCP risk exposures.

We consider this consultation alongside various other regulatory and industry initiatives that, collectively, seek to ensure that stakeholders are provided adequate and uniform qualitative and quantitative detail regarding CCPs. The *Disclosure framework for financial market infrastructures* issued by CPSS-IOSCO in December 2012 together with this consultation (collectively, the “Disclosure Framework”), both issued in response to key consideration 5 of principle 23 of the CPSS-IOSCO *Principles for financial market infrastructures* (PFMIs), will underpin clearing participant due diligence and risk assessment of CCPs. The quantitative disclosures within the Disclosure Framework are particularly important in their role to uniformly and consistently provide clearing participants with quantitative details of the CCP as part of requisite

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<sup>1</sup> Information regarding ISDA is set out in Annex 1 of this response.

<sup>2</sup> Throughout this response, we use the term “clearing participant” to capture the full range of entities who may have direct or indirect exposures to CCPs by virtue of their cleared positions. CMs are a subset of clearing participants each of whom, in addition, unconditionally guarantees the performance of those participants it has as clearing clients, and provides a limited guarantee in the form of default fund contributions that are highly expected to assure, but not guarantee unconditionally, the performance of other CMs and their respective client guarantees.

due diligence to assess a CCP as *qualified* (“Qualified-CCP” or “QCCP”) for purposes of quantifying capital requirements against CCP exposures.<sup>3</sup>

At the outset we wish to draw attention to the efforts of the Payments Risk Committee (PRC) to develop a common framework to improve the CCP due diligence process for clearing members. In February 2013, the PRC issued a report, *Recommendations for Supporting Clearing Member Due Diligence of Central Counterparties* (“PRC Report”) that outlines, among other items, quantitative disclosures of CCPs to clearing members.<sup>4</sup> Where the content and form of disclosure are similar, as appropriate, we believe the PRC Report would be useful to inform CPSS-IOSCO on the form and level of detail agreed upon by clearing members and CCPs.

Our response to the consultation is focused towards particular areas where we believe additional disclosure is merited as well as suggestions as to how disclosures would be most effectively presented. We have provided specific comment related to the granularity of quantitative disclosures and the frequency in which is it disclosed to stakeholders. The first section of response provides comments to the general questions set out in the cover letter to the consultative report. The second section provides comment to individual principles and specific questions set out in the consultative report.

We appreciate the opportunity to share these comments and would be pleased to engage further with CPSS and IOSCO on this regulatory initiative. If you require further information, please do not hesitate to contact George Handjinicolaou ([GHandjinicolaou@isda.org](mailto:GHandjinicolaou@isda.org)) and Ryan Ingram ([RIIngram@isda.org](mailto:RIIngram@isda.org)).

Yours Sincerely,



George Handjinicolaou, Ph.D  
Deputy CEO and Head of ISDA  
Europe, Middle East and Africa

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<sup>3</sup> Basel Committee on Banking Supervision, *Capital Requirements for bank exposures to central counterparties*, July 2012

<sup>4</sup> Payments Risk Committee, *Recommendations for Supporting Clearing Member Due Diligence of Central Counterparties*, February 2013. Information regarding the PRC is set out in Annex 1 of this response.

## I. Response to general questions in the cover note related to the content of the quantitative disclosures

Question 1: Are there additional quantitative data that are not included but are, in the respondent's view, necessary to allow risks associated with CCPs and the systemic importance of CCPs to be understood, assessed and compared? If so, what additional data should be disclosed, and why?

The consultation outlines comprehensively the primary types of data that would be useful to assess the risk profile of a CCP and to perform requisite due diligence of CCPs. In response to specific disclosures within, we have suggested additional metrics (e.g. concentration, granularity) that would be further useful when performing CCP due diligence procedures.

Quantitative data that is required from the CCP to assess capital requirements for bank exposures to CCPs, particularly metrics that are required to quantify capital requirements for bank contributions to a CCP default fund which are further requisite criteria to assess a CCP as qualified (QCCP), should be included within the Disclosure Framework.<sup>5</sup>

Question 2: Are there alternative quantitative or qualitative data, or more effective ways of presenting these or alternative data, that would better meet the objectives of fully, clearly and accurately understanding CCP risks and systemic importance, and comparing CCP risk controls, financial condition and resources to withstand potential losses, given the different markets and products cleared by CCPs, and differences in their structure? Are there data items included that are not, in the respondents' view, necessary to achieve these goals and, if so, why are these not necessary?

ISDA makes no comment to Question 2.

Question 3: Would any of this data be materially commercially prejudicial to CCP participants, linked FMIs or other relevant stakeholders and why is this the case?

It is important that quantitative data outlined for disclosure is anonymous and does not in any way directly or indirectly reveal the identity or exposures of any particular clearing participant. In this regard we raise attention to the quantitative disclosures that have been outlined for Principles 18, 19 and 23.

Question 4: Would disclosure of any of this data result in material additional burden to the CCP, and why (for example, because the data are not routinely available to the CCP in the normal course of its business and risk management)? If so, what analogous information could be disclosed in a meaningful way that would achieve similar goals while minimising this burden?

ISDA makes no comment to Question 4.

Question 5: Would disclosure of any of this data be inconsistent with local law or any legal or regulatory limitations on public disclosure? If so, what analogous information could be disclosed in a meaningful way that would achieve similar goals while avoiding such inconsistency?

We believe that the quantitative disclosures outlined within the consultation (including comments thereto) are important in the development of a framework for clearing participants to uniformly and consistently assess the risk profile and perform requisite due diligence of CCPs. To the extent that any of the quantitative disclosures outlined are

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<sup>5</sup> Basel Committee on Banking Supervision, *Capital Requirements for bank exposures to central counterparties*, July 2012 and Basel Committee on Banking Supervision, *Capital Treatment of bank exposures to central counterparties*, issued for comment June 2013.

inconsistent with local law or any legal or regulatory limitations for purposes of public disclosure, we advocate that this information is shared directly with clearing participants.

Question 6: Do the suggested frequencies for disclosing data strike an appropriate balance between up to date information and reporting burden? What is an appropriate reporting lag?

We believe that the quantitative disclosures outlined within the consultation (included comments thereto) are important in the development of a framework for clearing participants to uniformly and consistently assess the risk profile and perform requisite due diligence of CCPs. To the extent that such quantitative data disclosures are utilized in conjunction with a clearing participants ongoing due diligence for regulatory purposes as well as for internal risk management of a firms CCP exposures, we advocate a monthly disclosure frequency.

Question 7: (For CCP respondents) which of these data elements do you already publicly disclose? To what extent is that data maintained consistent with the quality controls called for in the template?

ISDA makes no comment to Question 7.

Question 8: What is the appropriate structure for presenting the quantitative disclosures so that comparability is facilitated? Once reporting has begun, should previous reports remain available to allow trends over time to be examined?

We consider the efforts and quantitative disclosure templates included within the PRC's report, *Recommendations for Supporting Clearing Member Due Diligence of Central Counterparties* that have derived through discussion between clearing members and CCPs. We agree that it would be useful if any disclosure template allows quantitative data to be easily comparable over an established period.

## II. Response to specific questions in the consultation organized by CPSS-IOSCO principle

In addition to the comments in response to the general questions outlined above, the following section provides response to the specific questions in the consultation and further includes comments to Principles where we believe further quantitative disclosure is necessary.

### ISDA Comments to Principle 4: Credit Risk

We agree with the type of quantitative data that has been outlined for disclosure. However we believe that further quantitative disclosure related to the models, underlying parameters and assumptions, and stress tests that support the overall default fund methodology are required to effectively risk assess and perform requisite due diligence of CCPs.

CCPs should provide enough information to allow clearing members to accurately replicate the size of the default fund and to fully evaluate its effectiveness in protecting the CCP. In addition and in supplement to qualitative disclosures outlined within the Disclosure Framework (e.g. Principle 4, Key Consideration 5 and 6), a CCP should provide key quantitative disclosure regarding, as example:

- Coverage model (# of largest clearing member and/or client defaults and how determined, i.e. largest uncollateralized portfolio loss over rolling quarter)
- Cure period the default fund seeks to protect against (at what confidence interval, if applicable)
- Frequency with which the default fund is resized and the method for allocating member required contributions (e.g. proportional to initial margin, volume, stress losses and/or some combination thereof)
- Full documentation of the approach, data and algorithms utilized to calculate the default fund as typically driven by uncovered or un-margined risk estimated via (1) stress testing, (2) the margining model with an increased confidence interval and/or longer holder period, or (3) a combination of (1) and (2) should be disclosed. Should such detailed characteristics of the approach be privileged, the CCP should at minimum provide a description of historical stresses (without underlying data/bps).

CCPs should further disclose to all clearing members on a monthly basis stress test data (or alternative metric where stress tests are not utilized) including: (1) summary statistics of the aggregate stress test results, (2) uncollateralized portfolio member level stress results used to size aggregate fund (e.g. largest two net debtors) and (3) remaining uncollateralized portfolio member level results on an anonymous basis. **Table 4.1** provides the summary statistics for disclosing the results of stress tests.

Table 4.1: Stress Test Disclosure<sup>6</sup>

Data Item	Description
Market/ Product	Name of market (e.g. name of exchange or OTC segment name) / product (e.g. futures, IRS) subjected to particular set of stress tests
# of Members and Clients	Number of members and associated clients included in stress tests
Holding Period	Cure period test intended to cover
Largest Stress Loss	Largest uncollateralized member portfolio loss included in stress
Associated Stress Scenario	Stress scenario associated with largest uncollateralized loss
2nd Largest Stress Loss	Next largest uncollateralized member portfolio loss included in stress
Associated Stress Scenario	Stress scenario associated with second uncollateralized largest loss

<sup>6</sup> To ensure confidentiality a lag in reporting detail related to uncollateralized losses may be utilized.

In addition, the aggregate amount of CCP capital (i.e. capital beyond any CCP commitments to the default fund) should be disclosed with specification, where applicable, to the amount of capital that is accessible as a default resource (including notation if applicable rules dictate service closure or segment wind down i.e. limited recourse). Specific to 4.1, the disclosure should provide a distinction between the amount of default fund required to that which has been funded by clearing members to provide an understanding of additional default resources that are available to the CCP. Specific to 4.2, CCPs should provide greater granularity surrounding the disclosure of non-cash collateral (e.g. rating requirements).

Question 1: How could this information best be presented to provide meaningful information across CCPs while avoiding disproportionate reporting burden (eg what is the case for disclosing further information on stress testing methods)?

We believe the ability to evaluate CCPs is dependent on access to the stress testing method and underlying metrics that are utilized by CCP.

Question 2: What are the pros and cons of seeking disclosures with regard to the estimated largest credit exposures to both the single largest and two largest participants (plus affiliates), from all CCPs irrespective of whether they are subject to a cover 1 or a cover 2 regulatory requirement?

We support the consistent disclosure of the two largest participants (plus affiliates) and believe this data is significant to evaluate the buffer that would be available (or shortfall) in the event of multiple default events at a CCP.

#### **ISDA Comments to Principle 5: Collateral**

We agree with the type of quantitative data that has been outlined for disclosure. In addition to stating the quantitative metrics surrounding a CCP's policy including (minimum) periodicity of updating haircuts applied to collateral, a CCP should disclose immediately any changes to existing haircuts rather than subject to a predefined or fixed period. Should the value of collateral exceed (decrease beyond) the established haircuts, a CCP should provide details over the collateral type including the magnitude and period in which the established haircut was exceeded.

Question 3: How frequently are haircuts changed?

See general response under Principle 5 above.

Question 4: How could this information best be presented to provide meaningful information across CCPs while avoiding disproportionate reporting burden?

In addition to the quantitative metrics listed at 5.3, results of testing of haircuts should further include the target confidence interval and the look back period assumed. Information should be provided based on product, instrument and tenor at the level of granularity at which the CCP establishes haircuts instead of summarized detail. Additionally, CCPs should report via a template that allows clearing participants to compare updated haircuts against those that previously applied.

#### **ISDA Comments to Principle 6: Margin**

We agree with the type of quantitative data that has been outlined for disclosure. However we believe that further quantitative disclosure related to the models, underlying parameters and assumptions, and stress tests that support the overall margin methodology are required to effectively risk assess and perform requisite due diligence of CCPs.

Specific to 6.2, CCPs should provide greater granularity surrounding the disclosure of non-cash collateral (e.g. rating requirements).

Question 5 (6.1, 6.2): Would it be preferable to report more frequently, eg monthly, or to report daily data over the period, the average over the period, highest and/or lowest values over the period, or data as at the end of the quarter?

We believe that quantitative disclosures surrounding margin should be disclosed on a monthly basis. Refer to our response at Question 6 in **Section I** above that provides our response to general questions presented within the cover note to the consultation.

Question 6 (6.3, 6.4): How frequently are initial margin rates and key parameters, including correlations, changed? Is the information requested sufficient to provide a basic understanding of the initial margin model, or is more or different information necessary? (eg the weighting applied to historic data, the range of volatility shifts modelled, etc?)

For the majority of CCPs, margin rates (and the parameters underlying them) are subject to update on a daily basis. As margins do (and should) change frequently, examining margin rates or overall level of initial margin is not sufficient to assess the safety provided by a CCP's margin requirements. If the CCP pre-establishes a schedule or periodic timeline at which margin rates are to be reviewed (e.g. by asset class), such timeline should be disclosed to allow clearing participants to anticipate and manage to impending margin rate adjustments.

CCPs should therefore provide enough information to allow clearing participants to accurately replicate the margin methodology in order to evaluate its effectiveness in protecting the CCP and all of its participants. In addition and supplement to qualitative disclosures outlined within the Disclosure Framework (e.g. Principle 6, Key Consideration 1, 3, and 6), a CCP should provide key quantitative disclosures as outlined below.<sup>7</sup>

- To replicate margin calculated based upon a Value-at-Risk (VAR) or Expected Shortfall (ES) approach, quantitative detail regarding the following should be disclosed:
  - Rationale for chosen approach\*
  - Assumptions regarding factor changes (generally either absolute or relative changes)\*
  - Look-back period and specification of any weighting scheme (e.g. exponential weighting with a decay parameter of 0.94)\*
  - Full specification of methodologies used to simulate profit and loss (P&L)
- To replicate a SPAN (Standard Portfolio Analysis of Risk as developed by CME Group) or other parametric margin components, quantitative detail regarding the following should be disclosed:
  - Rationale for chosen approach\*
  - Disclosure (and description) of each of the parameters underlying initial margin. For SPAN, this would include scanning range, inter-month spreads, inter-contract credits, short option charge, etc.\*
  - Disclosure (and specification) of the methodologies by which these parameters are determined, including: (1) underlying data, (2) holding period, (3) statistic(s) applied to data, (4) volatility – min/max, VAR, (5) look-back period, and (6) confidence level\*
  - Disclosure of any additional quantitative aspects of the algorithms used to apply these parameters
- Add-ons that are or may be utilized to capture any additional risks that are not fully captured by the margin methodology should be fully documented with any related or applicable quantitative detail disclosed. Add-ons

<sup>7</sup> We appreciate that there may be sensitivities to publically disclose certain qualitative and quantitative detail surrounding the margin methodology itself, however we believe it useful to establish a uniform and standardized disclosure framework albeit, in certain circumstances, privileged distribution. Items marked with an asterisk should be, at a minimum, publically disclosed (e.g. key parameters and assumptions that underlie the model).

are typically invoked when a position size or another metric exceed a specific value or threshold. Quantitative detail regarding the following should be disclosed:

- Values and rationale that support the thresholds\*
- Underlying analytics that support the thresholds

Common ad-ons include, however may not be limited to: (1) liquidity / concentration risk, (2) market risk from liquidating positions that are large relative to the market and may potentially involve bid-ask spreads and volume measures, (3) correlation risk, (4) basis risk, (5) model risk, and (6) wrong-way risk either general wrong-way risk or more specific to a particular member.

CCPs should compare each day's actual initial margin to the following day(s) P&L for each portfolio on a daily basis, and share summary level statistics on a rolling one year basis to clearing participants monthly.

Question 7 (6.5): How could this information best be presented to provide meaningful information across CCPs while avoiding disproportionate reporting burden? Is this information best presented at the level of clearing member accounts in each clearing service?

While the qualitative methodological aspects of this disclosure will be detailed within the Disclosure Framework (e.g. Principle 6, Key Consideration 1, 3, and 6), the quantitative elements are best disclosed through detailed periodic reports. These reports, ideally provided on a monthly basis, should include:

- *Aggregate Level Initial Margin Summary Statistics:* A CCP should present summary statistics on comparisons of each day's actual initial margin to the following day(s) P&L for each portfolio on a daily basis, and share summary level statistics to clearing participants monthly. Such tests should include a full year of results. Specific statistics should be reported as shown in **Table 7.1** in Annex 2.
- *Member Portfolio Level Back Tests:* Anonymous member-level portfolio back tests generated from comparing *static* portfolios over a full look back period of P&L should be shared with clearing participants on a monthly basis along with summary statistics as shown in **Table 7.2** in Annex 2. Summary stats should be reported at the aggregate CCP level as well as shared at an anonymous individual clearing member portfolio level.
- *Hypothetical Portfolio Level Back Tests and Statistics:* Hypothetical portfolio back-testing can be very informative, as long as portfolio composition is revealed in detail with rationale along with the following data items / statistics and full back test reports. Statistics and full back test reports should be shared with clearing participants by each hypothetical portfolio level. The specific statistics should be reported as shown in **Table 7.3** in Annex 2.
- *Factor Level Back Tests and Statistics (for Parametric Approaches to IM):* Factor-level back testing is most typically applicable to parametric approaches like SPAN, and can be viewed as an indirect approach to back testing. It simply tests the performance of parameters (across all clearing member portfolios) upon which initial margin is derived. Given the large number of CCPs using parametric approaches, this is an important type of back-test to include within any CCP industry level request. Both summary level statistics and full factor level back test reports should be shared with clearing participants with the statistics shown in **Table 7.4** in Annex 2.

## ISDA Comments to Principle 7: Liquidity Risk

We agree with the type of quantitative data that has been outlined for disclosure however this information. However, we would advocate the disclosure of aggregate liquidity requirements and resources on a monthly basis instead of quarterly as part of requisite ongoing due diligence for CCPs.

Clearing members would additionally require information on the determination of liquidity coverage to clearing members so as to understand how the peak liquidity requirement is computed including specifics such as number of clearing member defaults assumed, stress scenario(s) covered, liquidation period and confidence level applied, frequency of the calculation and overall documentation of the framework.

Related to 7.3, it is additionally important to understand the size of any payment obligation relative to the liquid resources that are available to the CCP (ex. 80% of liquid resources). It would be further important to understand the historical usage of liquidity lines including the size of the draw and the repayment period.

Question 8 (7.1): Would disclosures on composition of liquid resources reveal sensitive information about individual liquidity providers? (please say why, and how the disclosure could be amended to ensure adequate information on liquid resources is disclosed without this sensitivity?)

We believe that composition of liquid resources (e.g. repo lines, committed facilities, uncommitted facilities) at aggregate levels would not reveal information about liquidity providers.

Question 9 (7.3): How could this information best be presented to provide meaningful information across CCPs while avoiding disproportionate reporting burden? Would reporting this data present confidentiality issues and why?

ISDA makes no comment to Question 9.

Question 10 (10.5): Would this disclosure enable informed market participants to identify individual market participants and, if so, would that be materially commercially prejudicial to CCP participants and why?

ISDA makes no comment to Question 10.

#### **ISDA Comments to Principle 12: Exchange of value settlement systems**

It would be more meaningful if percentage and total amount were reported, not just the percentage. We would further suggest making free of payment activity (FOP) available (as well as PVP and DVP), including FOP activity involving CCPs, by value and percentage.

#### **ISDA Comments to Principle 13: Default rules and procedures**

Question 11: Would it be useful to publish quantitative disclosures following a default, with a suitable lag? (eg amount of loss versus amount of IM; amount of other financial resources used to cover losses; proportion of client positions closed-out /ported (in aggregate such that individual clients/members cannot be identified))? How long after the default would be appropriate? (ad-hoc)

It would be useful to publish quantitative disclosures that provide certain information related to a default event at a CCP. A lag of 6 months would appear reasonable. It would be further useful if CCP's were to publish quantitative data related to ongoing fire drills (i.e. default management drills) , including frequency of fire drills, simulated loss scenarios and assumptions driving the magnitude of the loss.

#### **ISDA Comments to Principle 15: General Business risk**

Question 12 (15.1, 15.2): Would any CCPs have difficulty providing more frequently eg every six months or quarterly, and would this add significant value?

We support that information should be shared on a quarterly basis. Related to 15.2, financial disclosures should further include Tangible Net Worth, the amount of collateral held off balance sheet, relevant capital ratios, and aggregate CCP capital including any amount specifically attributable to the CCP's default fund (e.g. "skin-in-the-game" requirement).

Question 13 (15.3): What information on revenue would best give an insight into risks facing the CCP, while respecting commercially sensitivity?

ISDA makes no comment to Question 13.

#### **ISDA Comments to Principle 16: Custody and investment risks**

Question 14 (16.2): What summary statistics could be disclosed without revealing sensitive information? (eg on concentration, maturity)

We agree with the type of quantitative data that has been outlined for disclosure. However we believe that there should be further quantitative disclosure related to the amount and concentration at each of the CCPs custodians including the percentage of investments that are secured as well as the domicile in which the assets are held. Where applicable, there should be additional disclosure related to the credit quality (e.g. internal / external rating) of the custodian, investment partners and actual investments.

#### **ISDA Comments to Principle 17: Operational risk**

Related to 17.1, it would be further helpful if system capacity versus utilization were disclosed. We additionally seek clarity on the definition of a "critical system failure" as described in the consultation.

#### **ISDA Comments to Principle 18: Access and participation requirements**

We agree with the type of quantitative data that has been outlined for disclosure. Related to 18.2 – 18.4, it would be further useful to understand the concentration of the clearing members that comprise the top 5 and 10 metrics and therefore suggest that each of the top 5 and 10 clearing member amounts – on an anonymous basis – be individually disclosed.

Question 15 (18.2-18.5): Could these metrics reveal information about individual members? If so, how should information about concentration across members be conveyed?

We consider that the stated metrics regarding the number of clearing members for disclosure (e.g. 5 and 10 as per 18.2 – 18.4) may be less appropriate for a relatively small or newer clearing service. The level of disclosure could scale proportionately with the size of the clearing service, for example, and be subject to certain thresholds such as a tiered minimum structure (ex. if greater than 25 members, the existing 5 and 10 metrics be applicable).

#### **ISDA Comments to Principle 19: Tiered participation arrangements**

We agree with the type of quantitative data that has been outlined for disclosure and would further suggest that overall percentage of volume attributable to clients also include the amount of a clearing members default fund that is attribute to client clearing.

Question 16: Could these metrics reveal information about individual members? If so, how should information about concentration of client clearing be conveyed? Do CCPs have access to all the requested information?

See ISDA response to Question 15.

#### **ISDA Comments to Principle 20: FMI Links**

We agree with the type of quantitative data that has been outlined for disclosure and would further suggest that the amount of margin reduction related to cross-margining be disclosed (regarding 20.7).

Question 17 (20.4): How could this information best be presented to provide meaningful information across CCPs while avoiding disproportionate reporting burden?

ISDA makes no comment to Question 17.

Question 18 (20.8): If the number of members participating in the cross-margining arrangement is fewer than 5, the CCP should consider whether 20.6-20.7 can be disclosed without revealing information about individual member positions.

ISDA makes no comment to Question 18.

#### **Principle 23: Disclosure of rules, key procedures, and market data**

We agree with the type of quantitative data that has been outlined for disclosure and would further suggest that disclosure include the count of contracts submitted by execution / matching / confirmation venues.

Related to 23.5 and 23.6, where a particular jurisdiction has limited clearing participants, we consider that the disclosure as stated could directly reveal the identity of a particular clearing participant and further their CCP specific exposures (e.g. positions and initial margin). As an alternative, for example, the public disclosure may require disclosure by a particular region.

### **International Swaps and Derivatives Association (ISDA)**

Since 1985, ISDA has worked to make the global over-the-counter (OTC) derivatives markets safer and more efficient. Today, ISDA has over 800 member institutions from 60 countries. These members include a broad range of OTC derivatives market participants including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure including exchanges, clearinghouses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's web site: [www.isda.org](http://www.isda.org).

### **Payments Risk Committee**

The Payments Risk Committee is a private sector group, sponsored by the Federal Reserve Bank of New York, which includes senior managers from several major banks in the United States. The Committee identifies and analyzes issues of mutual interest related to risks in payment, clearing, and settlement systems. Where appropriate, the Committee seeks to foster broader industry awareness and discussion and to develop input on public and private sector initiatives. The current members of the Committee are Bank of America , The Bank of New York Mellon, Bank of Tokyo-Mitsubishi UFJ, Citibank , Deutsche Bank, Goldman Sachs, HSBC Bank USA, JP Morgan Chase, Morgan Stanley, State Street Bank and Trust Company, UBS, and Wells Fargo. <http://www.newyorkfed.org/prc/>

Table 7.1: Aggregate CCP Level IM Summary Stats Report

Data Item	Description
Approach	Initial margin requirement on day T is compared to the following day(s) profit and loss. The profit and loss should be calculated on the same basis as the initial margin calculation. For example if the initial margin is derived from end of day positions on T, the profit and loss should be based on the same positions held constant over the assumed holding period used to calculate the IM.
Holding Period	The period (# of days) of potential future exposure/losses the initial margin is attempting to cover.
Profit and loss	The change in fair value over the holding period of the positions subject to the test. (privileged disclosure)
Market/ Product	Name of market (e.g. name of exchange or OTC segment name) / product (e.g. futures, IRS) subjected to back tests.
# of Members	Number of members active in the market under review.
# of Accounts	Number of accounts related to the members under review. For example House and Client(s) accounts. Accounts should include those opened and/or closed during the period.
Look back Period Confidence Level	The look back period in the test; this should be at least 12 months. CCPs should be encouraged to use longer periods where possible. Targeted confidence level that actual IM is intended to cover.
# of Observations	Number of business days in the window multiplied by the number of accounts. For example, 250 business days and 20 accounts results in 5000 observations.
Exceedance (\$)	The \$ amount by which the profit and loss exceeds the initial margin when a breach occurs.
Sum of Exceedances (\$)	Sum of the exceedance values across all breaches over the window being observed.
Maximum Exceedance (\$)	The maximum exceedance across all breaches.
Average Exceedance (\$)	Average exceedance across all breaches.
Number of Exceedances	Number of account level breaches.
Coverage Rate	$(\text{total observations}) - (\text{number of exceedances}) / (\text{total observations})$
Remarks	Supporting comments to explain the results (if needed)

Table 7.2: Member Portfolio Level Back Tests and Summary Statistics

Data Item	Description
Approach	Initial margin portfolio requirement on day T is compared against portfolio profit and loss based on current portfolio held constant over the defined holding period and look back period.
Holding Period	The period (# of days) of potential future exposure/losses the initial margin is attempting to cover.
Profit and loss	The change in fair value over the holding period of the positions subject to the test.
Market/ Product	Name of market (e.g. name of exchange or OTC segment name)/ product (e.g. futures, IRS) subjected to back test.
# of Members	Number of members active in the market under review.

# of Accounts	Number of accounts per member and at aggregate level under review. For example House and Client(s) accounts. Accounts should include those opened and/or closed during the period.
Look back period	The look back period in the test; this should be at least 12 months. CCPs should be encouraged to use longer periods where possible.
Confidence Level	Targeted confidence level that actual IM is intended to cover. Separate test may also include "IM's" calibrated to lower confidence levels (95%, 90%) purely to facilitate testing.
# of Observations	Number of business days in the window multiplied by the number of accounts. For example, 250 business days and 20 accounts results in 5000 observations. This statistic should also be provided at a member level.
Exceedance (\$)	The \$ amount by which the profit and loss exceeds the initial margin when a breach occurs. This should be reported a member level and aggregate CCP level.
Sum of Exceedances (\$)	Sum of the exceedance values across all breaches over the window being observed. This should be reported a member level and aggregate CCP level.
Maximum Exceedance (\$)	The maximum exceedance across all breaches. This should be reported a member level and aggregate CCP level.
Coverage Rate	$(\text{total observations}) - (\text{number of exceedances}) / (\text{total observations})$ . This should be reported a member level and aggregate CCP level.
Total Initial Margin Requirement Frequency Test Clustering Test	Initial margin requirement at aggregate market level and portfolio level under test. . The initial margin requirement should exclude any margin add-ons as these will not usually be observed in the profit and loss calculation. However if the CCP includes margin add-ons as part of the back test, then the CCP should clearly state so. Test to evaluate whether frequency of breaches is not significantly larger than that predicted by the target confidence level (e.g. Kupiec test). Test to evaluate whether breaches occur at random or whether clustering indicates otherwise (e.g. Christoffersen Test).

Table 7.3: Hypothetical Portfolio Level Back Tests and Statistics

Data Item	Description
Approach	Initial margin portfolio requirement on T is compared against portfolio P&L on a hypothetical portfolio held constant over the defined holding period and for a given look back period.
Holding Period	The period (# of days) of potential future exposure/losses the initial margin is attempting to cover.
Profit and loss	The change in fair value over the holding period of the positions subject to the test.
Market/ Product	Name of market (e.g. name of exchange or OTC segment name)/ product (e.g. futures, IRS) subjected to back test.
Hypothetical Portfolio (s)	Position-by-position listing of each portfolio's contents.
Look back period	The look back period in the test; this should be at least 12 months. CCPs should be encouraged to use longer periods where possible.
Confidence Level	Targeted confidence level that actual IM is intended to cover. Separate test may also include "IM's" calibrated to lower confidence levels (95%, 90%) purely to facilitate testing.
# of Observations	Number of business days in the window for the given portfolio back test.
Exceedance (\$)	The \$ amount by which the profit and loss exceeds the initial margin when a breach occurs.

Sum of Exceedances (\$)	Sum of the exceedance values across all breaches over the window being observed.
Maximum Exceedance (\$)	The maximum exceedance across all breaches.
Coverage Rate	$(\text{total observations}) - (\text{number of exceedances}) / (\text{total observations})$ .
Total Initial Margin Requirement Frequency Test Clustering Test	<p>Initial margin requirement of portfolio under test. . The initial margin requirement should exclude any margin add-ons as these will not usually be observed in the profit and loss calculation. However if the CCP includes margin add-ons as part of the back test, then the CCP should clearly state so.</p> <p>Test to evaluate whether frequency of breaches is not significantly larger than that predicted by the target confidence level (e.g., Kupiec test)</p> <p>Test to evaluate whether breaches occur at random or whether clustering indicates otherwise (e.g., Christoffersen Test).</p>

Table 7.4: Factor Level Back Tests and Statistics

Data Item	Description
Approach	The parameters underlying IM are tested against relevant factor data (for example , for SPAN IM for a futures contract might compare the “scanning range” parameter against actual changes in the contract price)
Holding Period	The period (# of days) of potential future exposure/losses the initial margin is attempting to cover.
Market/ Product	Name of market (e.g. name of exchange or OTC segment name)/ product (e.g. futures, IRS) subjected to factor level back test
Parameter Under Test	Name and description of the IM parameter being tested. For example, the parameter may be the “Scanning Range” or “Inter-commodity Spread”.
Factor	Factor(s) employed in back test (such as change in value of the futures contract price for back test).
Look back period	The look back period in the test; this should be at least 12 months. CCPs should be encouraged to use longer periods where possible.
Confidence Level	Targeted confidence level that actual IM is intended to cover. Separate test may also include "IM's" calibrated to lower confidence levels (95%, 90%) purely to facilitate testing.
# of Observations	Number of business days in the window for the factor level back test.
Exceedance	The amount by which factor exceeds parameter value in a given instance
Sum of Exceedances	Sum of the exceedance values across all breaches over the window being observed.
Maximum Exceedance	The maximum exceedance across all breaches.
Coverage Rate	$(\text{total observations}) - (\text{number of exceedances}) / (\text{total observations})$ .