



London Stock Exchange Group Response to the CPMI-IOSCO Consultative Report on Resilience and recovery of central counterparties (CCPs): Further guidance on the PFMI

Introduction

London Stock Exchange Group ("LSEG" or "the Group") is a diversified international market infrastructure and capital markets business sitting at the heart of the world's financial community. The Group can trace its history back to 1698.

The Group operates a broad range of international equity, bond and derivatives markets, including London Stock Exchange; Borsa Italiana; MTS, Europe's leading fixed income market; and Turquoise, a pan-European equities MTF.

Post trade and risk management services are a significant part of the Group's business operations. LSEG operates today multiple clearing houses. It has majority ownership of the multi-asset global CCP operator, LCH Group ("LCH"). LCH has legal subsidiaries in the UK (LCH Ltd), France (LCH S.A.), and the US (LCH LLC). It is a leading multi-asset class and international clearing house, serving major international exchanges and platforms as well as a range of OTC markets. It clears a broad range of asset classes, including: securities, exchange-traded derivatives, commodities, energy, freight, foreign exchange derivatives, interest rate swaps, credit default swaps and euro, sterling and US dollar denominated bonds and repos.

In addition, LSEG operates Cassa di Compensazione e Garanzia S.p.A. ("CC&G"), the Italian clearing house, providing clearing services for a range of European securities as well as exchange traded equity and commodities derivatives.

The Group also includes Monte Titoli, a CSD successfully migrated in Target 2 – Securities settlement platform; and globeSettle, the Group's recently established CSD based in Luxembourg.

In this context LSEG welcomes the opportunity to respond to the CPMI-IOSCO consultative report on the resilience and recovery of central counterparties.

Additionally, LCH has recently published a white paper on the topic of CCP Recovery and Resolution which can be found at <http://www.lch.com/documents/731485/762444/-and-resolution-a-framework-for-ccps.pdf/>. It provides more details on many of the issues raised in the further guidance on the PFMI in addition to that provided in this response.

Part A. General Remarks

In determining the global framework for the Recovery and Resolution of CCPs, the most crucial aspect in terms of financial stability is never reaching the resolution stage at all. When possible, it is preferable for a CCP to recover rather than be placed into resolution (with the undesirable associated consequences for financial stability that entails). To this end, LSEG would like to make the following recommendations:

1. **Clear governance structures:** We believe that clear governance structures are essential to ensure that boards maintain accountable for control and oversight of CCP resilience and recovery tools, but have the capacity to delegate day-to-day management to the relevant committees, management teams and operational experts to deal with sudden changes in market conditions. This level of delegation is important for both functional purposes to ensure individuals with the right skill sets are appointed to the board and to relevant committees and management teams, as well as ensuring that there is a degree of true independence between day-to-day operations of a CCP and oversight.
2. **Disclosure of resilience measures and recovery tools:** Faith in the robustness of CCP resilience measures and recovery tools are essential to ensuring continued market confidence and safety in CCPs during stressed market conditions, particularly when there is a risk that a clearing member or other key market actor might become insolvent. This is why CCPs undertake quantitative disclosures under Principle 23, Key Consideration 5, of the PFMI. However, there are key concerns about the level of information which should be considered public, limited to clearing members and that which is the private intellectual property of the CCP. A tailored approach to such disclosures would be better for market confidence than divulging all sensitive information which could lead to reverse-engineering of, for example, margin requirements thereby undermining the actual robustness of the CCP.
3. **Default waterfalls and Skin-in-the-Game ("SITG"):** The most important element of the resilience before recovery of a CCP in the event of a clearing member default should remain the default waterfall. While it is understood that skin-in-the-game is an important consideration for aligning interests in a default between the CCP and its clearing members. SITG is not, however, designed to be a meaningful loss absorbing layer within the waterfall which can be replenished within one day of use (as it represents the capital of the CCP). Instead, the default waterfall should focus on the robustness of margin methodology and the tools necessary for a CCP to restore a matched book.
4. **Margin methodology:** Margin provided by clearing members, both initial and variation, represents the largest portion of a CCP's default waterfall and the ability of it to recover from the failure of a clearing member. This is why the liquidation period of margin (MPOR) should reflect the actual time needed to manage a default all the way to the porting or the liquidation of clients' positions. Therefore, it should be adjusted to the legal structure of the jurisdiction and the liquidity and depth of the market.

It is important that the guidance on recovery tools addresses all of the margin system design, MPOR and procyclicality. In all instances CCPs should have systems and models which ensure that margin accurately reflects: (i) the value of contracts; (ii) market movements and market risk; and (iii) the likely realistic close-out time for contracts during stressed conditions.



5. **Stress-testing:** LSEG believes that standardised stress testing methodologies and guidelines will help improve transparency around CCP risk management. It will allow clearing members and regulators to compare different CCPs on a relative basis, to evaluate the strength and resiliency of clearing houses and to assess the extent to which a CCP's pre-funded resources (default fund contributions and CCP skin-in-the-game) would be consumed under a uniform set of stresses. A harmonised set of stress tests will also create a level playing field across the different regulatory jurisdictions and will present a consistent measure of the relative resilience of competing CCPs. As with the established PFMI framework, such stress testing should be based on risk scenarios which would have an extreme impact on the CCP but are plausibly realistic; not necessarily all possible circumstances, which are unlikely to be plausible.
6. **Necessity to preserve a robust recovery phase:** We consider that, in the scenario where one or several clearing member(s) default(s), it is essential that the CCP retains a comprehensive toolkit to: (i) be able to allocate all losses to surviving members; and (ii) the ability to restore a matched book through the ability to use Partial Contract Tear Ups (carefully explained and detailed for its members and clients).
7. **Distinction between Default losses and Non-default losses ("NDLs"):** LSEG considers it critical that any resilience and recovery tools distinguish between responses to clearing member defaults vs. responses to NDLs. Resultant actions needed to address these situations are likely to be very different, with different powers and resources available. We believe the issue of a CCP potentially failing is more pressing in the case of NDLs. Indeed, these situations occur outside the CCP's powers associated with clearing member defaults, where margins, guarantee funds, assessments, VMGH and (partial) Contract Tear Ups are not available to the CCP. LSEG supports the EMIR requirements for CCPs to hold dedicated regulatory capital for such losses and this adds to CCP resilience. Additionally, part of these NDLs could be allocated back to clearing members depending on the level of responsibility they have in designing the CCP's policy.
8. **Combined principles and guidance:** Given the piecemeal approach taken in developing the PFMI and the subsequent disclosure and guidance documents, LSEG suggests that CPMI-IOSCO look to combine the PFMI with the detailed further guidance in a more cohesive fashion. A singular approach would be more suitable for including both the principals and the more detailed guidance as opposed to several documents which cut across similar principles. This would be easier for CCPs and clearing members to understand and apply and more straightforward for supervisors to monitor.

**Part B. Detailed comments****Section 1. PFMI implementation**

As noted above and by paragraph 1.5.3 of the Report, the guidance is intended to support the observance of the PFMI by CCPs but does not impose additional standards beyond the PFMI. In order to ensure consistent application, ease of use and understanding for CCPs, clearing members and supervisors, we suggest that the guidelines, once finalised, should be incorporated into a revised version of the PFMIs themselves. This could be used as an opportunity to combine such materials into a single source, instead of having multiple resources, including disclosure standards, Level 3 assessments and other commentary.



Section 2. Governance

General comments

(i) Is the guidance provided on CCPs' governance sufficient and appropriate?

The Report focuses on two broad themes in relation to governance to comply with Principle 2 of the PFMI: the first is that the board of directors of a CCP should take explicit responsibility for the margin system and stress-testing; and second, that the board should be responsible for a comprehensive disclosure and feedback mechanism. The starting point for governance arrangements must be the recognition that the board of the CCP is responsible for governance and oversight and not day-to-day operational activities. The guidelines in Section 2 do not sufficiently make this distinction. It should be clear that board level responsibility is explicit and there must be governance arrangements for oversight; however, it would be both impracticable and unhelpful to suggest that board of directors must undertake such tasks without the ability to delegate to technical experts in the relevant areas. It would be undesirable if more day-to-day responsibility of the board led to the unintended consequence of altering the makeup of boards to be overly-focussed on risk processes and not account for the other necessary skills and responsibilities required for board members.

(ii) Is the current level of public disclosure by CCPs appropriate? In particular, is there a need for further disclosure related to margin and stress testing methodologies? If so, would the disclosure of the items included in the list (or a subset of the list) suggested by an industry group and attached as an Annex be appropriate and sufficient for disclosure and feedback purposes?

In respect of disclosure frameworks, it is important to reiterate that CCPs undertake quantitative disclosures under Principle 23, Key Consideration 5, of the PFMI. LSEG does not suggest that there should not be governance arrangements around disclosure pursuant to Principle 2, but any such arrangements must respect the ability of a CCP to manage the margin process in an effective way to be able to manage systemic and CCP risk, not to prejudice its own intellectual property and support market confidence.

Margin system design and stress-testing framework (2.2.1 – 2.2.5)

The design of margin systems is intended to capture the correct value of transactions and expose them to extreme but plausible stress scenarios, all with the intention (in the EU) of achieving a "cover 2" position. This means that the funded resources held by the CCP are enough to cover the default of at least the largest two members under stressed market conditions determined using all available time series.

Holding periods, for example, are a relevant area of stress tests which can have significant impacts. It is important to define precisely when a holding period starts and ends in order for CCPs to have identical standards to work from; for example, EMIR requires that the period start from the last successful margin call to the final liquidation of the defaulter's portfolio/re-establishment of a match book at the CCP. Having guidance to this effect means that CCP's can be evaluated on the robustness of their ability to manage a default within such periods. For example, at LCH, initial margins are calculated at a 99.7% confidence level over the relevant holding period for each particular product and at CC&G margin holding periods are analysed up to 3/5 days (versus the minimum 2 days required under EMIR) and the confidence levels applied are up to 99.8%/99.99% (compared to the required EMIR standard of 99.5% and Dodd-Frank standard of 99%). Members are also subject to other bilateral



margins such as concentration risk, basis risk with add-ons for wrong-way risk and a decline in credit quality.

We agree with guidance that governance arrangements are intended to ensure that such margin methodology is reviewed regularly and that the board should approve material changes to models brought about by stress testing. However, in doing so, it should still be appropriate that the board is advised by expert committees, such as a risk committee when undertaking such reviews and approvals.

Ongoing maintenance of financial resources (2.2.6 – 2.2.8)

We agree that the board of a CCP should ensure there are governance policies and procedures to delineate the respective roles of management and the board for ensuring a CCP maintains required levels of financial resources. LSEG supports the conclusions of the guidelines that market conditions can change rapidly and it is essential that governance structures are designed to ensure that the CCP can remain agile and responsive to these with day-to-day management to having delegated responsibility to take any corrective action necessary.

We would suggest, however, that the obligation to have a board level review of the risk management framework after a breach of covered credit exposures or covered liquidity exposures should again be capable of being supported by delegated responsibility to appropriate risk committees and operational divisions.

Determining the amount and characteristics of CCP's own financial resources to absorb losses (2.2.9 – 2.2.10)

A CCP's contribution to its own losses is primarily based around the concept of the CCP having some degree of skin-in-the-game ("**SITG**") to align its incentives in risk management to those of its clearing members. However, in calculating such amounts, SITG is best aligned with the capital position of the CCP¹ and not specifically as a tool to absorb losses in a default.

Additionally, as SITG relates to the capital position of a CCP, it would not be appropriate to subject such calculations to a consultation process with clearing members. Instead, clearing members can be provided with a transparent overview of how such amounts are reached and given clear communication of calculation outcomes.

Limiting destabilising, procyclical changes (2.2.11 – 2.2.13)

LSEG supports the conclusion that criteria to address procyclical effects should be both qualitative and quantitative and not based on any singular criterion.

As part of evaluating procyclicality and risks posed by members in participating in recovery actions, we expect that CCPs should have robust criteria for membership as an initial point. Additional diligence is a useful tool; however, it would be impractical to expect that a CCP is in a position to police its membership to be able to predict and manage granular changes and demands in margin during stressed periods. For example, SwapClear members have access to the SwapClear Margin Approximation Risk Tool which can give an indication of margin expectations in given circumstances, but does not rely on the CCP actively monitoring the client's position.

¹ See, for example, Commission Delegated Regulation (EU) No 153/2013, Article 35.



As members are best positioned to discuss their potential constraints and expected stressed losses, as opposed to the CCP conducting its own independent diligence.

Review and validation of margin system and stress-test framework (2.2.14)

LSEG supports the guidance that the board should evaluate the margin system and stress test framework and that this should be supported by the advice of the CCP's risk committee.

Additionally, industry-wide stress tests, when calibrated and conducted in a thorough manner – such as the ESMA stress tests², can be a very useful tool for transparent reviews of margin systems and stress test frameworks that should be supported.

Disclosure and feedback mechanism for reviewing the margin system and stress-testing framework (2.2.15 – 2.2.20)

Establishing a system to solicit comprehensive feedback from direct participants, indirect participants and other relevant stakeholders is not an appropriate method for making decisions about margin methodology and stress-testing. First, the level of disclosure would likely require significant information in respect of the CCP's margin system which could both undermine its intellectual property rights as well as risk the reverse-engineering of margin systems to allow for potential undermining of CCP margin calls. Second, one could expect that members would be incentivised to reduce the amount of margin paid into the CCP and lower the cost of clearing. In contrast, the CCP is incentivised to ensure that its margin methodology is robust as the reliability of such methodologies is fundamental to their market offering of effective risk management and furthermore, many CCPs face the first tranche of a default waterfall following the insolvent clearing member's margin through application of its own SITG. Third, considering the existing CPMI-IOSCO Public Quantitative Disclosure requirements³, there are already significant data fields made available every quarter and an the CCP would face a material build cost to provide anonymous margin and stress-test methodology which should only be undertaken if there is a clear rationale for such additional disclosures. Finally, some information is not included in the public disclosures because its inclusion would raise competitive issues with CCPs and members, especially in shallow markets where even aggregated results are not actually anonymous.

² https://www.esma.europa.eu/sites/default/files/library/2016-658_ccp_stress_test_report_2015.pdf

³ <http://www.bis.org/cpmi/publ/d125.pdf>

Section 3. Stress testing

General comments

(i) Is the guidance provided on stress testing sufficient and appropriate?

LSEG believes that standardised stress testing methodologies and guidelines will help improve transparency around CCP risk management. It will allow clearing members and regulators to compare different CCPs on a relative basis, to evaluate the strength and resiliency of clearing houses and to assess the extent to which a CCP's pre-funded resources (default fund contributions and CCP skin-in-the-game) would be consumed under a uniform set of stresses. In addition, it attempts to place CCPs on a level playing field regardless of confidence levels used to calculate margin, holding and methodology for sizing default funds, etc.

A harmonised set of stress tests will also create a level playing field across the different regulatory jurisdictions and will present a consistent measure of the relative resilience of competing CCPs. The promotion of standardised guidelines for stress testing will encourage clearing houses to engage in a race to the top, where clearing houses compete on the basis of safety and soundness.

In the light of the potential for member positions and market prices to change significantly during the day, is the proposed guidance on capturing intraday positions and price movements in stress tests appropriate and sufficient?

Please see detailed comments in relation to paragraphs 3.2.17 – 3.2.35 below.

Structure of credit and liquidity stress-testing frameworks (3.2.1 – 3.2.9)

We recognise that the guidelines should include assessing all relevant sources of liquidity risks; however, it should be clear that the framework for stress-testing is intended to reflect the realistic risks for each product type and asset class. Certain liquidity risks will be more apparent in respect of certain products/asset classes than others and CCPs should be in a position to determine these accordingly as a fixed set of predefined risk factors could lead to a potential underestimation of risk factors connected to the specific activity of a certain CCP while potentially overestimating risk factors which do not represent a real issue for that same CCP.

Nonetheless, we would support a minimum level of harmonisation by the introduction of a minimum level of standardisation, for example with reference to shock applied thus ensuring a sufficient level of pre-funded resource among CCPs. Transparency towards clearing members and regulators should be undertaken with a full disclosure of methodologies and parameters adopted in the stress testing methodologies.

Risks related to credit exposures (3.2.12 – 3.2.13)

LSEG supports the draft guidelines in this section.

Identification of all liquidity risks (3.2.15 – 3.2.16)

LSEG supports the draft guidelines in this section.

Risks related to liquidity exposures (3.2.17 – 3.2.18)

When liquidity risks are identified, the manner in which they are dealt with should reflect the CCP's margin methodology and methods of access to liquidity. For example, where the relevant MPOR for a CCP is a single day, this effectively means that the risk of liquidating such collateral is an intra-day risk, as the sale price will be whatever the stressed intra-day price is in order to complete the transactions within the required time period when the market closes. Conversely, where a CCP's MPOR is 2-day it is less necessary to price in intra-day stressed liquidity as there is a longer time period available to obtain a market price for the collateral sold by the CCP. The guidelines should reflect the distinction and linkage between such liquidity risks and the expected time to realise CCP resources, such as margin.

Use of end-of-day, intraday, and intra-period price and intraday position movements (3.2.34 – 3.2.35)

We believe that in order to avoid making arbitrary assumptions about the transactions that are concluded during the day and the price changes, the stress test should be performed using end of day positions and prices. Possible peaks of exposures and sharp price movements should be already captured by margin methodologies but are not necessarily "plausible" risks in actually liquidating positions. Furthermore, intra-day data quality and price accuracy will not be as reliable as end-of-day and may lead to biased results.

As noted above, we do support the need for stress tests to factor in price movements; however, the significance of certain criteria (such as intra-day price movements) should be relative to the anticipated time for liquidation and the relevant MPOR employed by the CCP. The shorter the time period for liquidation, the more necessary it is to give intra-day price movements extra weight and the longer the time period for liquidation, the less necessary it is to do so.

Development of forward-looking scenarios (3.2.36 – 3.2.38)

In developing forward-looking scenarios, the guidelines should ensure that they do not add to the risk of procyclical behaviour. Having changes in margin methodology which are clearly related to metrics that allow participants to predict changes would actually encourage procyclicality and this outcome would be detrimental to systemic risk management. For example, a margin system tied to credit spreads would meet this criterion and be extremely procyclical. It should be sufficient if there is adequate transparency in the margin methodology for forward-looking scenarios and sufficient communication to help clearing members manage changes in margining levels, for example with margin simulation tools.

Changes in relationships between different products or asset classes (3.2.39 – 3.2.41)

LSEG agrees that account needs to be taken of the impact of different asset classes on a portfolio within the CCP. Therefore, it makes sense that portfolio are segregated initially by asset class for the purposes of stress testing. Once segregated, the portfolios can be subjected to various sets of stress scenarios, including historic, hypothetical and de-correlated stress scenarios. Once the scenarios have been applied to the portfolio, the impact of the stresses are recorded on the portfolio's profit and loss as well as the resulting erosion of margin, and usage of default fund contributions and of the CCP's own SITG.

Treatment of client exposures (3.2.48 – 3.2.51)



We believe that the approach taken in the draft guidelines is too conservative and do not reflect the default management processes CCPs have in place. They do not allow CCPs or regulators to account for past experience in default scenarios and porting assumptions across relevant jurisdictions.

Analysis of the risk management framework (3.2.53 – 3.2.55)

LSEG supports the draft guidelines in this section.



Section 4. Coverage

Cover 1 or Cover 2 is a minimum (4.2.1)

LSEG believes the Cover 2 standard maintained to a high confidence interval is the most appropriate means of ensuring market confidence and safety in CCP resilience. While we recognise that Key Consideration 4 of Principle 4 of the PFMI maintain that Cover 1 can be used for less-complex risk profiles, the guidelines should be clear that only very basic CCPs with limited asset coverage and very limited credit and liquidity risks should employ a Cover 1 standard.

Determining the largest exposures (4.2.2 – 4.2.3)

LSEG supports the guidelines in suggesting that a CCP would need to justify and clearly explain using an approach of unsynchronised stress-tests in certain market circumstances. Normally, we would expect most CCPs to operate on a simultaneous Cover 2 default scenario.

Maintaining resources on an ongoing basis (4.2.5 – 4.2.7)

LSEG supports the draft guidelines in this section.

Section 5. Margin

General comments

(i) Is the guidance provided on margin sufficient and appropriate?

Having effective and realistic margin methodologies in place are essential to the resilience of a CCP. It should not be expected that CCPs compete on different levels of margin to be the most cost efficient to their membership. The overriding concern is always the accuracy of the margin requirements and the confidence with which they can be applied against open exposures in a default scenario. Therefore, as the guidance suggests, it is essential that all assumptions, implicit and explicit, in margin methodologies are acknowledged and taken into account, particularly with respect to the ability to liquidate margin within a set time period to manage a default.

(ii) Is the guidance provided on procyclicality appropriate and sufficient?

(iii) The PFMI do not explicitly address margin add-ons. Is the guidance provided on margin add-ons adequate to ensure sufficient coverage by the margin system and other prefunded financial resources in line with the PFMI?

LSEG also acknowledges that the availability of clearing members to offer access to cleared products is a key concern. Margin methodologies, particularly efficiencies from portfolio margining and the use of pro-cyclicality buffers, should not discourage smaller financial institutions from accessing clearing. We would not want a situation where the margin buffers and reserved amounts that are not as sensitive to the CCP's own margin methodology means that a reduced amount of clearing members increases concentration risk at the CCP itself. This would be counterproductive to the fundamental aim of a CCP, which is to manage and mutualise risk amongst a wide range of participants.

(iv) The PFMI do not prescribe a minimum margin period of risk or closeout period. Is further guidance in this area needed?

Please see response to paragraphs 5.2.4 – 5.2.11 below.

Margin system design (5.2.1 – 5.2.3)

The draft guidance related to applying certain thresholds on the level and stability of correlation does not seem suitable for portfolios containing homogenous products (e.g. large cap equities or interest rate products) with varying degrees of correlations between underlying risk factors. We suggest that guidance focus on the concern that models should have a sufficient range of stressed correlations in the sampling period to demonstrate significant fat tails for each portfolio return distribution.

Margin Period of Risk (MPOR) or closeout period (5.2.4 – 5.2.7)

LSEG agrees that the assumed MPOR of a CCP must acknowledge the legal system and constraints and market realities of the jurisdiction that it is operating in. In developing a basis for MPOR, all relevant legal and market liquidity considerations should be accounted for.

Minimum MPOR or closeout period (5.2.8)



The liquidation period should reflect the actual time needed to manage a default all the way to the porting or the liquidation of clients' positions. Therefore, as noted above, it should be adjusted to the legal structure of the jurisdiction and the liquidity and depth of the market.

Model assumptions (5.2.9 – 5.2.11)

Where the assumed MPOR is a single day, this means that the effective time to manage a default and liquidate positions will be on the basis of intra-day pricing and market movements, which can be less liquid and more volatile than end-of-day pricing at market close.

Addressing procyclicality (5.2.33 – 5.2.38)

While we support strong measures to address procyclicality, it is not necessarily appropriate that linking changes in margin charges to clear metrics that would allow participants to predict changes. It should be sufficient if there is adequate transparency in the margin methodology for forward-looking scenarios and sufficient communication to help clearing members manage changes in margining levels, such as margin simulation tools.

Addressing procyclicality in other related areas (5.2.43 – 5.2.44)

LSEG does not believe it is the role of the CCP to require clearing members to charge their clients more margin than the CCP requires of them. The CCP has contractual relationships only with its clearing members, even where individually segregated client accounts are offered and the subsequent commercial relationships between clearing members and clients are determined between them.

Section 6. CCP contribution to losses

General comments

(i) Is the guidance provided on a CCP's contributions to financial resources to cover losses sufficient and appropriate?

LSEG acknowledges that CCPs, as the entity which is ultimately responsible for its architecture and risk management, should: (i) contribute to losses that occur beyond the pre-funded resources of a defaulting member (in event of a member default) and (ii) contribute to losses where there is a non-default loss (NDL) alongside its membership, which must also bear losses in proportion to its level of responsibility. This aligns interests of both the CCP and the clearing members in the organisation, risk management and operational processes of the clearing structures, investment structures and resilience of a CCP.

An important distinction should be drawn between responses to clearing member defaults vs. responses to NDLs. Resultant actions needed to address these situations are likely to be very different, with different powers and resources available. We believe the issue of a CCP potentially failing is more pressing in the case of NDLs. Indeed, these situations occur outside the CCP's powers associated with clearing member defaults, where margins, guarantee funds, assessments, VMGH and (partial) Contract Tear Ups are not available to the CCP. LSEG supports the EMIR requirements for CCPs to hold dedicated regulatory capital for such losses and this adds to CCP resilience.⁴ Additionally, part of these NDLs could be allocated back to clearing members depending on the level of responsibility they have in contributing to a CCP's decisions and policies, their participation in investment gains or revenue sharing, and their introduction of risk into the system itself.

Losses related to a participant's default (6.2.2)

The most important element of the resilience before recovery of a CCP in the event of a clearing member default should remain the default waterfall and pre-funded resources by clearing members. While it is understood that skin-in-the-game is an important consideration for aligning interests in a default between the CCP and its clearing members. SITG is not, however, designed to be a meaningful loss absorbing layer within the waterfall which can be replenished within one day of use (as it represents the capital of the CCP). Instead, the default waterfall should focus on the robustness of margin methodology and the tools necessary for a CCP to restore a matched book.

Custody and investment losses (6.2.3)

A CCP must safeguard the assets provided to it as margin and is often bound into certain types of investments either by statutory requirements and/or by its own rulebook. For example, EMIR requires that a CCP can hold no more than 5% (on average) of margins in unsecured deposits with commercial banks and is not allowed to use money market funds. Without access to the relevant Central Banks, this means that the CCP is forced to store cash in the repo markets and so is exposed to this market risk. In cases where the CCP has agreed strict criteria for custody or investment policies are set out in a CCP's rulebook and sanctioned by members, there is a strong argument that a CCP should not be primarily responsible for the size of such losses, as this will depend upon the amount of transactions entered into the CCP by the clearing members themselves. Therefore, while it may be

⁴ Regulation (EU) No 648/2012, Article 16(2); Commission Delegated Regulation (EU) No 152/2013, Article 2.



appropriate for a CCP to contribute an initial tranche of losses from its own capital in the event of custody and investment losses, such contribution should be fixed and limited.

While it is not entirely related to the allocation of non-default losses, we would like to draw CPMI-IOSCO's attention to the relationship between CCPs, CSDs, payment systems, Concentration Banks and Central Banks, as these connections are relevant to the resilience of the CCP.

Risks arising from moving margins between members and the CCP:

- For margins in the form of securities, these are handled by a custodian and are bankruptcy remote.
- For cash margins, these are invested in several ways by the CCP. As explained before, these are invested to meet EMIR constraints, with the largest share invested on a secured basis in repos (through an (I)CSD), most of the remainder invested in high grade securities and the balance in unsecured deposits at a Commercial Bank.

Potential issues may arise here:

If the (I)CSD fails, then the CCP (and potentially nobody in the market) can transform securities into cash and vice versa. This would make it virtually impossible for the CCP to meet its VM calls. The failure of such a systemically important institution as a (I)CSD requires rapid coordination amongst Authorities, and cannot be addressed by the CCP on its own. Indeed from the CCP perspective, its securities are bankruptcy remote, so the problem here is how to access them rapidly.

For securities owned outright by the CCP, there are some protections in place which can allocate solvency threatening losses back to members. For example the Statutory Instrument⁵ put in place HM Treasury covering investment losses in 2014.

This leaves the residual unsecured cash deposits to commercial banks, which arise when the CCP is not able to deposit the cash in the relevant currency at the appropriate Central Bank. The need for the CCP to have such a deposit facility is a key requirement to manage systemic risk. Without this, the CCP has no choice but to leave cash at a commercial bank during a stress event; hardly a desired outcome. There is a clear argument for such deposit access for a CCP on systemic risk grounds which would greatly reduce the risk inherent in CCP operations in general.

There is also the related risk arising when the CCP cannot participate in a protected payment system (such as Target 2) and has to construct its own version of the protected payment system PPS using designated commercial banks. In this construct, members pay cash margins to a PPS bank and these margins are then forwarded to a "concentration bank", so cash is "concentrated" at a select commercial bank. The CCP also distributes cash margin back to members by following this process in reverse.

If a PPS bank were to fail, then the CCP would have fall back arrangements for receiving and paying margin. If for some reason, member cash was lost here, then there is "Extended Member Liability" protection available in that the member is still responsible for that cash and that responsibility only ceases when the cash reaches the Concentration Bank, whereupon the CCP assumes the risk.

⁵ The Financial Services and Markets Act 2000 (Over the Counter Derivatives, Central Counterparties and Trade Repositories) (No. 2) Regulations 2013

If the Concentration Bank were to fail, then again the CCP has backups in place to direct margin flows, but the CCP would be exposed to losing the cash balance already at the Concentration Bank. This balance is one of the key risks for a CCP, and is managed by ensuring a strict limit on the aggregate activity with the Concentration Bank.

This risk would not arise in the first place if the CCP were able to leverage the relevant Central Bank to take its cash deposits and so direct its margin payment flow without the exposure to Commercial Banks. This effectively is what happens under the Target 2 system for funds denominated in euros. A similar process exists for dollars with the NSS. While this risk is increasingly considered by Authorities, such Central Bank access has not been granted universally to large CCPs. The perception that this may be a bail out for CCPs is incorrect; in that the essence of the argument is that the CCP is asking to deposit currency at the Central Bank of issue and not to repo securities with the Central Bank.

Each day, there are CCP cash balances at the (I)CSDs representing cash received in the CCP account after some transactions have rolled off. The CCP may instruct some of these funds to be paid into opening repo legs with new counterparties, some of these funds to be used to purchase outright securities and some to be paid to the Concentration Bank. Except for the Concentration Bank activity, these are Delivery Versus Payment activities.

In fact all accounts in this process form a closed network; an account cannot be opened at the (I)CSD unless a strict account opening process is followed involving many independent signatories. There are relatively few accounts and these are reconciled daily by the CCP and by the (I)CSD, so money cannot be physically sent outside the system of accounts. This means that if there is a cyber attack on the CCP, the worst that can happen is to cause a disruption, but ultimately not to lose cash. This can be handled by a system reset to the last known trusted statements (at most 24 hours reset) and the damage corrected accordingly. This may require a Rulebook amended to ensure the CCP is not liable for losses associated with the fictitious trades.

There is a small amount of money required for day to day bill payments by the CCP, but the loss of this amount would certainly not be a solvency threatening event and could easily be absorbed by the CCP capital.

Seniority of the CCP's own financial resources (6.2.4)

LSEG agrees that the CCP's own contribution to losses should take place as follows:

- (i) for clearing default losses – following the defaulter's margin and default fund contribution, to provide some of the CCP's own capital as SITG before the contribution of non-defaulting members;
- (ii) for non-default losses – this will have to vary on the manner of the loss, but in most circumstances it is reasonable to assume that there will be a mixed approach of some tranche of CCP capital and member contribution. This is because losses related to such NDLs as investment or custody risk are due to business undertaken in managing the risk put into the CCP system by the transactions of clearing members and the quantum of loss exposure should not all sit with the CCP.

Neither of these scenarios should be designed with the view that a CCP's contribution should be calibrated to ensure that non-defaulting members are unlikely to make a financial contribution to CCP recovery as a fundamental aspect of CCP risk management is loss mutualisation by the membership.

Section 7. Recovery

General comments

(i) Is the guidance already provided on recovery planning in the Recovery Report sufficient and appropriate?

In undertaking CCP recovery, there are two overriding issues which need to be acknowledged, the first is that a CCP must always ensure that it has a matched book and an overriding principle of recovery should be the goal of returning a CCP to that position as soon as possible, which will help bring stability to the stressed market situation. The second is that clearing members will not be in a position to fund an ailing CCP indefinitely. When those two fundamentals are acknowledged, it becomes clear that the focus of recovery must be the quick return of the CCP to a matched book, with full allocation of losses while making the best use of pre-funded resources available from the membership. That is why it is essential that the CCP retains a comprehensive toolkit to: (i) be able to allocate all losses to surviving members; and (ii) the ability to restore a matched book through the ability to use Partial Contract Tear Ups (carefully explained and detailed for its members and clients).

Allocation of losses not caused by participant default (7.2.1 – 7.2.2)

LSEG believes it is appropriate that non-default losses are first charged against CCP capital, up to certain pre-defined amounts and then charged to clearing members. This is because the quantum of many non-default losses (such as custody or investment losses) is in relation to the amount of clearing member collateral provided to the CCP based on the transactions entered into by the clearing members themselves. Therefore, while it may be appropriate for a CCP to contribute an initial tranche of losses from its own capital in the event of custody and investment losses, such contribution should be fixed and limited.

Speed of replenishment of financial resources (7.2.5 – 7.2.6)

LSEG agrees that the expectation that default fund resources should be replenished by the next business day after a default should be the normal prevailing intention. In respect of delays to replenishing financial resources, we believe that such decisions are likely to need to be taken in conjunction with the CCP's prudential regulator, as the regulator is likely to have a better understanding of the market-wide financial stability concerns and conclude it is not practicable to replenish resources by the next business day.

Where looking to reserve available resources from members for replenishment, as opposed to meeting uncovered losses, this suggests that other tools, for example variation margin gains haircutting could be employed instead to meet uncovered losses.

Re-establishing a matched book (7.2.7)

LSEG agrees that the first option in re-establishing a matched book should always be the use of voluntary measures such as the auction process. However, it is ultimately necessary to have tools which can be employed to force allocation upon members and partial contract tear-up are essential tools when other avenues for CCP recovery have been unsuccessful. As the guidelines suggest, market-based tools are preferable, but allocations and partial tear-up in particular are necessary where there is no active market in the open positions and to keep them on the CCP's book unmatched would pose significant danger to a CCP's stability.



We understand that some buy-side firms have expressed concerns around the use of partial contract tear-ups by the CCP arguing that they were not directly involved in the contracts that would be impacted by such tools. However, it should be noted that without a CCP buy side firms would be trading bilaterally, with such contracts subject to partial tear-up were the counterparty to default, as that is a likely tool of the counterparty's resolution authority. Given that a CCP can control how exactly a partial contract tear-up is executed, and can establish clear criteria on this, it should address concerns of market participants who might otherwise object to this tool; for example, possibly including an opportunity for buy side firms to participate in auctions before partial contract tear up takes place.

LSEG accepts that complete tear up of contracts is economically equivalent to the closure or wind-down of a clearing service. However, it is important to distinguish the situation of CCPs with multiple products using segregated default waterfalls. The full tear up of contracts in one service does not necessarily impact the clearing of other products at the CCP or the solvency of the CCP as a whole. This highlights the importance of having separate default funds and waterfalls for different products to avoid contagion within the CCP.