
**EACH response to the CPMI-IOSCO
consultation “A discussion paper on central
counterparty practices to address non
default losses”**

October 2022

Introduction

The European Association of CCP Clearing Houses (EACH) represents the interests of Central Counterparties (CCPs) in Europe since 1992. CCPs are financial market infrastructures that significantly contribute to safer, more efficient and transparent global financial markets. EACH currently has 18 members from 14 different European countries. EACH is registered in the European Union Transparency Register with number 36897011311-96.

EACH appreciates the opportunity to provide feedback to the CPMI-IOSCO discussion paper on central counterparty practices to address nondefault losses¹ (hereinafter called "The discussion paper").

Overarching questions

1. Are there areas in the context of CCP NDLS where further guidance under the PFMI might be helpful? If so, what are the potential areas where further guidance might be most helpful?

EACH Members overall support the content of the discussion paper. We very much welcome the thorough analysis performed by CPMI-IOSCO and the CCPs that responded to the questionnaire that led to this paper. Similar to previous CPMI-IOSCO work on client clearing², we consider this fact-finding exercise by CPMI-IOSCO very useful, understanding of course the limitations in terms of the number of CCPs covered. EACH Members also particularly appreciate the references concerning the identification of NDLS scenarios and quantification of NDLS included in Section 2.1 of the discussion paper.

EACH would also like to highlight the following key points:

- **Not all non-default events lead to NDLS** – Not all non-default events lead to non-default losses (e.g. a cyber-attack; a custody failure). It is therefore important to differentiate between non-default events and NDLS.
- **"Polluter pays principle"** – EACH is of the opinion that loss allocation for NDLS should be proportional to the level of responsibility of each stakeholder involved (e.g. CCP owner or CCP user) for bringing risk into the CCP or defining the policies to mitigate those risks. Please see further details in our response to question 2 regarding the support towards the "polluter pays principle" by other associations and authorities.
- **European CCPs already comply** with PFMIs regarding non-default losses through the implementation of the PFMIs via the European legislation on CCP Recovery and Resolution (CCP RR)³.

¹ <https://www.bis.org/cpmi/publ/d208.pdf>

² <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD712.pdf>

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R0023&from=EN>

Finally, we would like to point out that the CCPs' feedback to the questionnaire on NDLS prepared by CPMI-IOSCO – and which forms this discussion paper - was prepared by CCPs between the end of 2020 and the beginning of 2021. The considerations included in this discussion paper are, therefore, based on answers provided prior to the CCP RR Regulation being published and entering into force. CCP RR already addresses several of the points highlighted in the discussion paper, as EACH explains in more detail in this response.

2. Are there any additional points of consideration or practices, in addition to those mentioned in this discussion paper or in the PFMI and existing guidance, that would help CCPs effectively and comprehensively address losses from non-default events? Are there areas that require additional clarity from authorities? If so, what are they?

EACH Members would like to highlight that identifying NDL scenarios and addressing the possible related losses is a key matter for European CCPs. Its importance is explicitly recognized also by the CCP RR Regulation. Article 9(1) of CCP RR mandates that "*CCPs shall draw up and maintain a recovery plan providing for measures to be taken in the case of both default and non-default events and combinations of both, in order to restore their financial soundness, without any extraordinary public financial support, and allow them to continue to provide critical functions following a significant deterioration of their financial situation or a risk of breaching their capital and prudential requirements*". In addition, point (c) of CCP RR Article 9(2) states that the measures included in the recovery plan shall also include loss-absorbing arrangements that are adequate to cover the losses that might arise from all types of non-default events.

CCP RR also draws the attention towards the necessity to ensure a fair allocation of losses, specifying in Recital (20) that, as a general rule, "*losses in recovery should be distributed between CCPs, clearing members, and, where applicable, their clients as a function of their responsibility for the risk transferred to the CCP and their ability to control and manage such risks*". It should be noted that this view is shared also by ISDA in its 2017 paper "Safeguarding Clearing: The Need for a Comprehensive CCP Recovery and Resolution Framework"⁴, according to which "*in some instances, clearing participants should bear at least a portion of non-default losses related to custodial risks, settlement bank risks and investment risks*". EACH Members appreciate that the principle of loss allocation is reflected also in Sections 3 and 5 of the discussion paper. EACH also agrees with the consideration, on page 18, that where CCPs use loss allocation as a tool to address certain types of NDLS (in particular custody and investment losses), the allocation arrangements for NDLS should provide a comprehensive description of the way in which losses would be allocated (e.g. clear rules, procedures and governance arrangements). We also agree that CCPs should ensure that potential clearing member obligations are sufficiently transparent, measurable, manageable and controllable.

These arrangements are in general in the rulebook of the CCP, and sometimes more detailed in policies (e.g. the investment policy). The rulebook – and the changes to it – is subject to consultation by all clearing members. Additionally, relevant policies are also shared with the

⁴ <http://assets.isda.org/media/85260f13-48/d1ef0ce0-pdf/>

EMIR Risk Committee for approval. Both ensure transparency to the clearing members and their active support for the rules and policies of the CCP.

3. Are there particular challenges that CCPs face in planning for an orderly wind-down in a NDL scenario? Are there means to motivate further progress in orderly wind-down planning?

In line with the PFMI and Article 16 of the EMIR Legislation⁵, European CCPs hold capital, including retained earnings and reserves, proportionate to the non-default risks that the CCP is exposed to. As per the EMIR Legislation, this capital "*shall at all times be sufficient to ensure an orderly winding-down or restructuring of the activities over an appropriate time span and an adequate protection of the CCP against credit, counterparty, market, operational, legal and business risks which are not already covered*" by the CCP's other lines of defence.

Should it be necessary, a CCP might increase its capital resources through the use of capital preservation tools (e.g. reduction in dividend payments, cost reductions, asset sales), payment of its liabilities in instalments or conversion of its debt into equity (subject to an appropriate agreement between the CCP and its counterparty), or general capital raising from investors. CCP capital is appropriate for the allocation of non-default losses for which the CCP is the only entity with the responsibility for creating and managing those risks. European CCPs are well placed to meet such losses and thus ensure continuity of the CCP's critical services and the preservation of market stability.

However, EACH Members would like to underline that, as detailed in our response to question 10, the sufficiency of the minimum period set out in the PFMI (six months) should be individually assessed based on the evidence available to the CCP.

Identifying NDL scenarios, quantifying NDLs and assessing the sufficiency of resources (Section 2)

5. How can a CCP identify potential NDL scenarios comprehensively as well as with an appropriate degree of granularity?

Given the business model of CCPs and the markets in which they serve, in line with the CPMI-IOSCO guidance⁶ we considered there are three main types of risk scenarios that could give rise to a non-default loss (NDL):

- Investment and custody risks
- General business or operational risks
- Uncovered liquidity shortfalls

⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012R0648&from=EN>

⁶ <https://www.bis.org/cpmi/publ/d162.pdf>

European CCPs generally identify these scenarios in their rulebooks so that they are comprehensive and with an adequate degree of granularity. In identifying those, European CCPs define the types of scenarios generally as described below.

Investment and custody risks

Investment risks refer to the potential risks faced by the CCP as a result of the investment of the resources provided by the CCP, its clearing members and/or clients. Due to the conservative investment rules in place outlined in Article 47 of the EMIR Legislation, it would only be in the most extreme cases that the CCP's investments could materialise in losses that might prevent the CCP from meeting its financial obligations towards its participants. In addition, due to the provisions in the EMIR legislation preventing CCPs from depositing more than 5% of their overnight cash balances with commercial banks and the fact that several central banks do not accept overnight deposits from CCPs, CCPs have to invest the majority of cash collected as margins and default fund contributions. EMIR sets prudent investment standards, so only in an extreme scenario, such as government or repo counterparty default, could this lead to investment losses.

Custody risks refer to the potential risks faced by the CCP in case the custodians that keep the resources of the CCP, its clearing members and/or clients are subject to severe stress that prevents them from meeting their obligations as defined in the agreements made with their partners, including CCPs. The PFMI refer to insolvency, negligence, fraud, poor administration or inadequate recordkeeping as potential sources of custody risks. Similar to investment risks, CCPs can effectively mitigate their exposure to such risks, e.g. through careful selection of the custodian and ongoing due diligence. In this context, the intensity of regulation and supervision of the custodian also needs to be taken into account (see response to question 6).

General business or operational risks

General business or operational risks refer to the potential risks that could result from events other than the default of a clearing member or those related to investment and custody. Operational risk management is a key piece of the regulatory framework and has been a focus of regulators around the world in recent years. CCPs support robust operational risk frameworks that define risk mitigation strategies and are subject to on-going regulatory review. Potential losses related to general business or operational risks could arise from:

- Third-party service providers – Some CCPs rely on third-parties to ensure certain aspects of the day-to-day functioning of their business. These parties may include referential, market and price data providers or trade sources such as execution platforms and middlewares. A failure of these parties may impact the staff and operational systems of the CCPs and prevent them from functioning properly. CCPs mitigate this risk through defined service level agreements with third-party service providers, on-going due diligence on third-parties and third-party risk assessments.
- System failures (e.g. cybercrime or failure of monitoring tools) – This risk refers to the potential failure of the IT systems of the CCP. This could be the result of a general system failure or a concrete failure such as a cyberattack on the CCP. CCPs mitigate potential system failures through the measures such as the development of system

redundancies, secondary sites, business continuity tests, continuous monitoring and testing of systems and security or third-party assessment of security. In line with principle 17 of CPMI-IOSCO PFMI, the risk of system failures should be addressed amongst other through the CCP's business continuity plans.

- Fraud – This risk refers to the potential losses that could result from a fraudulent action by an employee of the CCP or a clearing member. CCPs mitigate fraud risk through the maintenance and enforcement of internal anti-fraud compliance policies, on-going monitoring of employee activity, limited access to online transmission or storage tools, and robust compliance requirements under regulations. Specific measures are described in each CCP's CPMI-IOSCO quantitative disclosures.
- Legal claims/professional responsibility – This refers to the legal risk to which the CCP may be subject as a result of, among other things, improper documentation among its partners and members. CCPs mitigate legal risk through on-going and regular review to ensure contractual relationships with its clearing members, which are subject to regulatory approval by National Competent Authorities (NCAs) and EMIR colleges, clients and vendors are legally robust and capable of functioning in case of recovery and resolution scenario. Third-party legal reviews in conjunction with reviews at the inception of new relationships (i.e. onboarding a new clearing member or settlement bank), including an evaluation of the entity's jurisdiction.

In our opinion, it is important to stress that in certain cases a CCP should cover all losses caused by a general business or operational failure. In this regard, we would like to quote the Chicago Fed Paper "Non-default loss allocation at CCPs"⁷, according to *which "CCP's owners choose and supervise the managers who run the CCP. The managers make decisions that either lead to or prevent business and operational failures. Therefore, the CCP's owners are ultimately responsible for such failures and should bear the cost"*. A different evaluation should, however, be considered for cyberattacks, because the cyberattack could have been *"facilitated by a connection between the CCP and a clearing member. In such a case, the loss should be shared between the responsible clearing member and the CCP"*.

Uncovered liquidity shortfalls

By virtue of its central position in transferring assets (collateral) and cash variation margin payments between members, as well as because of having to re-use and invest assets in public markets, CCPs are exposed to the risk of being unable to transform assets in a timely way, resulting in a temporary liquidity shortfall. Depending on how the liquidity shortfall is addressed, it may or may not result in a loss. CCPs mitigate the risk of liquidity shortfalls through daily monitoring of liquidity resources and frequent re-evaluation of liquidity needs. CCPs also stress test their liquidity needs to ensure they would be able to meet them under extreme but plausible circumstances.

This ensures that even under an extreme NDL scenario, CCPs maintain sufficient funding to meet their liquidity obligations. CCPs may take additional steps to mitigate potential liquidity risk:

⁷ https://www.chicagofed.org/-/media/publications/policy-discussion-papers/2017/pdp-2017-02-pdf.pdf?sc_lang=en

- CCPs may define their own limits for collateral, rather than subscribing firm limits on cash balances, in order to ensure they can maintain sufficient levels of the most liquid forms of collateral.
- Considering rules in the CCP's rulebook which give the CCP discretion at any time to declare specific types of collateral to be ineligible. This would allow a CCP to deal with any investment risks which were specific to a certain form of collateral by requiring replacement collateral from members.
- Considering rules in the CCP's rulebooks that cash collateral is not treated by the CCP as being received and allocated to the member until it is credited to the CCP's central/settlement bank account, therefore preventing the CCP bearing the risk of the default of a clearing member's settlement bank.

6. Given that a CCP's efforts to prevent losses from non-default events may fail, what are effective approaches to prepare for and address resulting losses, in particular from low-probability, high impact events?

There are several measures that CCPs have in place to mitigate the different types of risks described in our response to question 5.

Mitigating investment and custody risks – Measures and resources

To mitigate investment risks and prevent potential investment losses, CCPs have developed robust and conservative investment strategies and monitoring systems, building on the demanding and conservative standards already prescribed by EMIR as a best practice. Regulators and CCPs share the ultimate goal of protecting the funds of clearing members from any potential loss and have worked together to develop prudent standards for investment of margin and default funds' contributions. These requirements, as well as each CCP's approach to meeting them, are publicly available through the CCP's rulebook and disclosures, ensuring total transparency into each CCP's investment approach and risk management.

To further reduce investment risks, EACH Members maintain a balanced range of options to deposit collateral, including where possible access to central banks, in order to avoid concentrating the deposits at commercial banks that are also clearing members. Investment risks could be further reduced by:

- Ensuring a diversified scope of high-quality investment counterparties (e.g. investing in secured money market funds);
- Considering rules to give CCPs a special treatment in the event of a custodian/CSD recovery and resolution event;
- Extending access to central bank facilities.

With regard to the measures to mitigate custody risks and prevent potential custody losses, while the dedicated legislation on Central Securities Depositories (CSDR)⁸ makes CSDs even more stable, efficient and safer market infrastructures, in the extreme scenario of a CSD or

⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0909&from=EN>

custodian being severely disrupted, regulators may consider exploring provisions for CCPs to directly access their assets held at CSDs. It should be noted that a given CSD may not itself be the definitive record of title to a particular security. There may be a chain of intermediaries between that CSD and the local CSD which is the definitive record of title to which CCP might be exposed to.

In jurisdictions where a CCP does not have access to a CSD (such as a European CCP accepting US collateral), EMIR permits the use of custodians. This introduces the normal sorts of investment risk which are associated with any counterparty.

Mitigating general business or operational risks – Measures and resources

To mitigate general business or operational risks, CCPs have in place the following set of measures and resources:

- Service level agreements with third-parties and due diligence
- Legally robust contractual relationships
- Continuous assessments
- Secondary sites, business continuity tests, monitoring and testing
- Anti-fraud compliance policies and employee monitoring
- Third-party legal reviews
- Capital legally required by EMIR

Furthermore, additional equity or recapitalization, asset sales or the subscription of insurance agreements are other measures available for CCPs to mitigate this type of risks.

Mitigating potential non-default losses arising from uncovered liquidity shortfalls – Measures and resources

CCPs should establish and regularly assess the adequacy of additional funding resources that could be called upon to fund potential liquidity shortfalls. Providing all qualified CCPs with an equal opportunity to access central bank facilities across the EU would help ensure all CCPs have additional support in managing liquidity risk during extreme market conditions. Additionally, CCPs may be given the power to convert the currency of an account to another currency under extreme circumstances. As an example, if a CCP has a liquidity issue in relation to USD, it can convert a clearing member's account currency to EUR or GBP (in respect of which the CCP may have access to sufficient commercial credit lines or central bank money) and pay the member in that currency. This option may be considered in an extreme scenario, rather than as business as usual, if considered adequate to save a CCP from insolvency.

It is also important to underline that the European CCP Recovery and Resolution framework also provides tools for CCPs to address NDLS. An example is the additional amount of pre-funded own resources that CCPs – the so-called "second skin in the game"⁹ – have to dedicate and which shall be used during the recovery phase before resorting to other recovery

⁹ https://www.esma.europa.eu/sites/default/files/library/esma91-372-1706_fr_rts_ssitg_art_915.pdf

measures. In addition to this pre-funded capital, CCPs have to define several recovery measures that can be used in case of different types of non-default events. Their effectiveness is tested in the different scenarios that need to be drafted as part of the recovery plan (see also the response to question 7).

7. Are approaches such as sensitivity analysis, scenario simulations, drills or stress-testing analysis useful for quantifying resource needs and assessing adequate NDL coverage? If so, what are potential obstacles hampering progress in this area and what could be possible avenues for reducing those obstacles?

As detailed in our response to question 6, EACH Members generally include certain non-default events in their stress tests, i.e. those non-default events that CCPs consider "material" for the relevant CCP and the products cleared. Some types of risk (e.g. liquidity risk and other operational risk) are covered in ESMA's stress tests. The requirements for CCPs to specifically define potential non-default cases in their recovery plans also adds into the need to stress tests these non-default events.

The European CCP RR Legislation also requires CCPs to draft several non-default scenarios where CCPs have to demonstrate how they would be affected and how they are able to recover from such events. In order to create more convergence among CCPs, the aspects to consider in these scenarios are further detailed in the ESMA Guidelines¹⁰. To be able to recover from the scenario, CCPs have to use pre-defined recovery measures. In all cases the impact on clearing members, other parties and the wider economy need to be considered when choosing for a recovery measure. Furthermore, CCPs also have to take into account the advice of the EMIR Risk Committee prior to approving the plan – this increases also the transparency towards clearing members about the recovery measures and the results of the stress scenarios. Furthermore, the recovery plan is also shared with and approved by the NCA and the College.

On top of the recovery plan scenarios, which are drafted by the CCP itself, the Resolution Authority also has to draft four default, four non-default scenarios and one combined scenario which should cause even more stress to the CCP such that resolution is required. Both the recovery and the resolution scenarios can be used to identify weaknesses to the CCP's measures to address non-default risks.

8. Are there particular types of NDL scenario that CCPs could consider to help assess potential resource needs and coverage for NDLS? (eg stressed business and operational risk scenarios extrapolated from past events, NDL scenarios exacerbated by wider macroeconomic stress, or other hypothetical NDL scenarios)?

EACH Members would like to highlight that non-default events are not just dealt with through additional resources. Some non-default events such as a cyberattack are unlikely to be addressed with additional resources, but they should rather be prevented through the

¹⁰ https://www.esma.europa.eu/sites/default/files/library/esma70-151-3404_guidelines_ccprrr_recovery_plan_scenarios_0.pdf

application of ex-ante measures, such as an appropriate cybersecurity policy (See our preventive measures in our response to Question 6).

In this context, EACH Members would like to recall that a March 2022 Report¹¹ by the FSB on CCP Financial Resources for Recovery and Resolution investigates two specific scenarios of NDLS in a sample of seven out of thirteen CCPs that are considered systemically important in more than one jurisdiction:

- **Scenario 1:** Liquidity risks from the loss of access to the institution (other than the central bank) holding assets (securities and/or cash) on behalf of the CCP.
- **Scenario 2:** Cyber theft (a quantum of cash stolen from the CCP was assumed to equal the highest daily value of the sum of all cash the CCP transferred to any single investment agent or depository on a single day).

The report finds that, concerning scenario 1, all the CCPs were able to address the liquidity needs. The report also adds that some CCPs have included in their rulebooks *"conditions into determining that a loss of access to or a failure of a custodian / central securities depository (CSD) would not result in a liquidity stress at the CCP but rather at the clearing member level, as the clearing members would be obliged to replace assets not accessible by the CCP."* No CCP, however, had to rely on these arrangements.

Concerning scenario 2, the report finds that, with the exception of two CCPs whose prefunded and recovery resources were sufficient to cover the loss resulting from the cyber theft, all the others saw their losses exceeding their prefunded and recovery resources reached between \$265mn and \$11.8bn, likely triggering resolution. EACH would like to stress that the report acknowledges the limitations of its assumption and analysis, and we consider that the most significant limitation of the NDL analysis was that the results greatly depend on the *"choice of scenarios"*. In particular the cyber theft scenario was designed at an abstract level due to a lack of *"actual experience"* with such a case. EACH therefore believes that the results of scenario 2 (i.e., that only through the use of resolution tools sufficient resources would have been mobilized to address the losses) should be read with caution, as they could have been different would the sampled CCPs have interpreted the given scenario differently and would have applied operational arrangements or cyber security measures which are also part of CCP risk management practices.

Furthermore, we would like to note that there is already an abundance of guidance for EU CCPs on the NDL risk scenarios to be considered both in the business-as-usual and the recovery context (e.g. EMIR RTS 152/2013, ESMA guidance on recovery plan scenarios requiring CCPs to select material NDL scenarios from a table of scenarios while considering specific sources of risks in the selection process). The EU standards overall strike an appropriate balance as they achieve a necessary degree of convergence in CCP's NDL scenario development without forcing each CCP to apply a fixed set of scenarios irrespective of their individual risk exposure.

¹¹ <https://www.fsb.org/wp-content/uploads/P090322.pdf>

9. How and to what extent can the potential simultaneous occurrence of default and non-default related events be taken into account?

It should be underlined that the probability of a non-default event resulting in NDLs is very low. As the University of Tilburg Paper "Why is a CCP failure very unlikely?"¹² explains, currently regulators require a charge of 15% of annual net revenues calculated as the average of the past three years annual figures. This corresponds to a conservative proxy for coverage up to a high quantile (99.9%) of the loss distribution. On this basis, the authors calculate that an NDL event "*which exhausts both the regulatory capital held by the CCP and the annual profits held by the CCP has a very rare chance of occurring of about 1.5bps. This is considered AAA risk equivalent according to the Rating Agencies and is even under the Basel floor of 3bps*".

The EU CCP RR and related ESMA guidance already require CCPs to reflect the potential simultaneous occurrence of both events in the recovery plan. This ensures that all CCPs in scope test the effectiveness of the measures foreseen to mitigate the impact of DL and NDL events.

10. What factors, in addition to those suggested in the PFMI, might a CCP helpfully consider when calculating the amount of liquid net assets funded by equity that is sufficient to implement its recovery and orderly wind-down plans? How can a CCP effectively incorporate its general business risk profile and the length of time required to achieve recovery or orderly wind-down into this analysis?

The sufficiency of the minimum period set out in the PFMI (six months) should be individually assessed based on the evidence available to the CCP. EU regulations (Art. 16 EMIR supplemented by RTS 152/2013¹³) already require a CCP to estimate the length of time for a wind-down or restructuring giving consideration to a number of individual factors (e.g. the liquidity, size, maturity structure and potential cross-border obstacles of the positions of the CCP and the type of products cleared) and submit it to the competent authority for approval. Thus, while the time span is floored at six months in accordance with the PFMI, EU regulation may require a CCP to adjust it upwards depending on the outcome of its internal analysis. Furthermore, the regulation requires a review of the time period in case of significant changes in the assumptions underlying the estimation.

11. Given the limited availability of historical data on severe NDL events, what do you consider the most important sources of information in developing plans to address NDLs, particularly for potential recovery situations (eg internal expertise, key stakeholders such as clearing participants and service providers, external market experts, relevant authorities, frameworks and practices in place for other types of financial institution)?

¹² https://pure.uvt.nl/ws/portalfiles/portal/46839740/2021_002.pdf

¹³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013R0152>

Due to the scarcity of historical data on severe NDL events, CCPs' most important source of information for NDL preparations will be their internal expert judgment based on the limited internal data (e.g. data on less severe NDL and information on the CCPs' operations).

12. Do you have any suggestions for how the clearing industry could leverage loss data from other industries or collaborate to share anonymised loss data?

Even under the assumption that such loss data sharing arrangements within the clearing strategy are feasible, we are not certain whether the results will be worth the effort. NDLs are infrequent and their occurrence highly depends on the CCP's unique characteristics, processes and mitigating measures. Therefore, loss data provided by one CCP may not necessarily be very informative for the development of NDL-related plans by another CCP.

13. What key measures can help to ensure that capital replenishment could be achieved in a timely and effective manner? Does the clear definition and testing of processes to obtain backup funding from affiliates or external sources underpin the credibility of that funding? How do you assess the current availability of committed or legally binding funding arrangements?

Regular risk identification continued monitoring of risk thresholds and a clear process for the escalation of breaches are key to ensuring that any capital shortfalls can be addressed by the management in a timely manner. To the extent that an NDL triggers recovery, the European CCPRR legislation requires CCPs to describe measures for capital replenishment in the recovery plan (Art. 9 (2) CCPRRR).

14. What role should insurance play for NDL, considering potential uncertainties about coverage, pay-out delays and performance risk? Are there certain types of NDL risk for which insurance may be a more appropriate loss-absorbing resource than for other types of NDL risk?

The application of insurance to non-default events depends on whether the risk is insurable and, where applicable, whether premiums and coverage are adequately balanced. European CCPs therefore believe that it cannot cover every non-default possibility. The subscription of insurance agreements generally represents a good tool for example to mitigate general business or operational risks. A key feature to consider insurance in non-default events would be to define how they will be claimed against.

15. What practices might improve CCPs' planning for an orderly wind-down necessitated by NDLs?

As detailed in our response to question 3, in line with the PFMI, international standards and Article 16 of EMIR, CCPs hold sufficient resources in the form of capital, including retained earnings and reserves, proportionate to the risk stemming from the activities of the CCP to address potential general business and operational risks. In case of necessity, such capital can be increased via a series of dedicated tools. European CCPs are therefore well placed to meet

such losses and thus ensure continuity of the CCP's critical services and the preservation of market stability.

Achieving operational effectiveness (Section 3)

16. Are there any additional notable practices that could promote the operational effectiveness of plans to address NDLS?

Article 9 (19) of the EU CCPRRR requires that the recovery plan (foreseeing NDL-related measures) forms part of the CCP's corporate governance and overall risk management framework. Such an inclusion ensures a high level of internal scrutiny, thereby contributing to the effectiveness of plans.

17. What approaches might be helpful to ensure that relevant third parties (such as service and liquidity providers) fully understand and are prepared for their potential role in addressing NDLS?

These topics should be addressed in a general manner under the CCP's terms and conditions. Furthermore, the EMIR Risk Committee can also be used to raise awareness of clearing members and clients with regard to their role and potential obligations arising from NDL. Finally, CCPs may also consider launching a formal consultation, in case they plan to change their NDL-related rules in a way which would materially impact third parties.

18. What are the essential elements of appropriate due diligence vis-à-vis relevant third parties on which CCPs would expect to rely in an NDL event?

Please see our response to question 6.

20. What technological tools should be developed to promote the operational effectiveness of plans to address NDLS?

EACH Members are of the view that existing clearing systems and communication methods can generally be used to implement measures in the event of an NDL (e.g. recovery cash calls). We do not consider the development of dedicated technological solutions solely for the purposes of NDL management as necessary.

Reviewing and testing plans for NDLS (Section 4)

22. What challenges are there to achieving the goal of increasing the involvement of additional stakeholders in different stages of review and testing of plans to address NDLS?

First of all, we would like to underline that many CCPs already involve additional stakeholders in the final review of plans to address NDIs (e.g. as part of the recovery planning process). The involvement of multiple stakeholders during the development phase, in particular, to test specific scenarios, would be rather challenging and potentially costly for all sides. The testing environment would need to be set up in a way that ensures the protection of confidential data (e.g. clearing member data, CCP back-up facilities) and avoids any interference with productive capacities. We are not sure whether the inherently limited results generated by a specific scenario test with a subset of affected stakeholders will be worth the effort. Therefore, we would caution against any prescriptive standards for stakeholder involvement in NDI-related testing which could impede CCPs' existing operational arrangements.

23. Are multi-CCP crisis management drills an effective tool for testing preparedness to address NDIs? Are there any barriers to effectively conducting this type of exercise? What role should authorities play in supporting these exercises?

EACH members are not convinced that multi-CCP crisis management drills can be an effective tool contributing to better preparedness – supposing that all legal and operational barriers could be overcome. Due to different business models, risk exposures and regulatory differences, CCPs' approaches to addressing NDIs vary and therefore, the added value of multi-CCP crisis management drills for the participating CCPs may be limited. Rather than engaging in such an exercise, we believe CCPs' resources would best be devoted to continuously enhancing their own plans.

Providing effective governance, transparency and engagement with participants and authorities (Section 5)

24. Are there additional notable practices for providing effective governance, transparency and engagement with participants and authorities in the context of NDIs?

We believe that governance committees, such as the EMIR Risk Committee, consultations with affected entities on relevant changes to the CCPs clearing rules, regular exchanges with the competent authorities (including the recovery and resolution authority, where applicable) as well as the disclosures CCPs already made available by CCPs, provide for a sufficient level of transparency and engagement with external stakeholders.

25. What are the most important elements of appropriate processes and governance arrangements for rule-based loss allocation to support clearing members in anticipating and preparing for potential exposures?

A CCPs rulebook should enable clearing participants to get an overview of the loss allocation mechanisms that apply in the context of NDIs. In case such provisions are significantly amended by the CCP, clearing participants should be informed well in advance.