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1. Introduction

The European Association of CCP Clearing Houses (EACH) represents the interests of Central Counterparties Clearing Houses (CCPs) in Europe since 1992. EACH currently has 19 members from 15 different European countries and is registered in the European Union Transparency Register with number 36897011311-96.

EACH welcomes the opportunity to provide input to the FSB consultation on 'Financial resources to support CCP resolution and the treatment of CCP equity in resolution'.

2. Financial resources for CCP resolution

Q1. Do you agree with the suggested five-step process to evaluate the financial resources and tools for resolution? What other elements, if any, should be considered?

General agreement with the five-step process proposed

We believe that the five-step approach proposed by the FSB to evaluate the financial resources and tools for resolution is appropriate. The approach appears logical as we believe it makes sense to first look at potential scenarios (Step 1), then at the tools available to deal with those scenarios (Step 2), the potential costs related to those scenarios (Step 3), a comparison of the tools and costs (Step 4) and finally a consideration of how to address the gaps (Step 5).

In applying the five-step approach and the resolution strategy, resolution authorities should aim to ensure the continuation of critical services while balancing the protection of the authority against claims and the flexibility for the authority to successfully resolve the CCP. To achieve this, we would suggest the resolution authority to consider applying the NCOWL counterfactual of 'value of continuity'. The 'value of continuity' counterfactual is based on the desired level of market participants to continue with the functioning of the CCP as follows:

- If participants evaluate that the burden imposed by loss allocation which would be necessary for (partial or full) continuity is too high, the CCP should be closed;
- If the problem is rather that the existing available resources are too low to achieve (desired) continuity, then loss allocation and tool usage should be broadened to enable this. Under this scenario, participants should not be able to claim, since the increased continuity was in their favour (i.e. the losses allocated to them to achieve continuity were smaller than what they would have incurred if the CCP had closed).

Our response to question 16 below develops the concept of 'value of continuity'.

Resolution authorities should have the power, during recovery and resolution planning, to compel a CCP to incorporate the appropriate recovery tools in its rulebook. Once a CCP enters into a crisis situation and in case of early intervene, we believe that the actions taken by the

resolution authority should be in accordance with the CCP's existing rules and arrangements which have been agreed in advance.

EACH Suggestion #1

Complement to the five-step approach

As a complement to the five-step approach described by the FSB, because the event of a potential CCP resolution would likely lead to largely distressed market situation, resolution authorities may want to look beyond the CCP itself, and look at the overall process, i.e.:

- CCP as a going concern (incl. prefunded Cover 2, a well-structured close-out/auctioning process and top-ups/assessments)
- Very credible Recovery, which is combined with strong positive incentives for supervisors and potentially new Members in the form of Clients of defaulting members to contribute, as well as shareholders to a corresponding degree.
- A quite discouraging resolution, with harsh and punitive measures ('disincentives' to reach it) potentially in the form of penalties, including the Members that originally caused the debacle, or for owners & management if they were the cause.

Along the chain above, the tools of the going-concern waterfall, and any potential ensuing tools in the form of sale of parts (e.g. certain clearing segments, or systems), recapitalisation recuperation of losses from the defaulting parties ex-post, sale of the whole CCP, etc. the focus must be for all stakeholders to be incentivised to support Recovery, in the conviction that this is the absolute best from a NCWO perspective.

EACH would therefore suggest that the FSB expressly endorse the centrality of the CCP's agreed recovery and default management processes within the recovery/resolution framework. This will increase certainty in the market, focus the mind of the resolution authority to the primary objective of this five-step process and reduce the risk of vested interests influencing resolution authorities away from the pre-agreed waterfall.

In addition to the potential scenarios described in the discussion paper, EACH thinks that in line with national law it would be crucial in a CCP Resolution event **to identify and to rank the different creditors** (e.g. staff, tax authorities, etc.) and **to assess the assets and values on the balance sheet** (including any insurances or guarantees provided). We believe that the sale of these assets might bring funds helping to resolve the CCP, before it can be liquidated.

In the answers below we outline some detailed comments on particular scenarios.

Q2. The discussion paper outlines a number of CCP and product specific factors that authorities should consider when assessing the adequacy of resources and tools in resolution. Are these factors appropriate or are there other factors that should be considered?

General agreement with FSB assessment

EACH very much welcomes the recognition by the FSB of CCP and product specific factors that authorities should consider when assessing the adequacy of resources and tools in resolution. CCPs are very heterogeneous in terms of products cleared, market served (local or international, profile of participants, etc.). We see that most of these factors are identified by the FSB in the discussion paper.

EACH Suggestion #2

Treatment of CCPs with multiple waterfall segments

While the FSB discussion paper recognises the existence of multi-service CCPs, we suggest the FSB to clarify in the paper the following two cases that CCPs with multiple waterfall segments may be confronted with:

- Unviability of one segment but viability of the others The case may be that even if one particular segment may be under stress, the CCP at large may still have a chance to survive.
- Unviability of one segment and the CCP as a whole The viability of one segment may be jeopardised in such a size that the CCP's whole existence is questionable, whereas it would be possible that a smaller adjacent segment is not yet troubled. EACH thinks that the latter segment could then maybe still be transferred or sold.

Q3. Should the assessment of financial resources for CCP resolution take into account (a) different CCP ownership structures; (b) different CCP organisational structures; or (c) the products cleared by the CCP? If so, how?

EACH Suggestion #3

No differentiation between CCP ownership structures

CCP ownership structures diverge significantly across CCPs in Europe. The discussion paper raises the view that member-owned and shareholder-owned CCPs may need to be treated differently. We disagree strongly with this proposition and suggest not including it in the final FSB paper. In order to assess financial resources for CCP resolution, it appears sounder to assess the resolvability of the CCP on a standalone basis taking into consideration that CCPs are independent entities. This is particularly crucial from a risk management perspective: CCPs with all forms of ownership structures are strongly incentivised to ensure the continued success of the CCP and, specifically, will seek to capitalise the CCP adequately and in accordance with PFMI and FSB standards. By way of analogy, we are not aware of any

distinction made in the context of bank resolution between wholly owned, listed or memberowned (cooperative) bodies.

EACH Suggestion #4

Ensuring correct assessment of all CCP resources

Where the **CCP** is part of a larger group, resolution authorities should, while assessing the CCP as an individual entity, duly consider the impact that the resolution of the CCP may have on other legal entities within the group, especially if they provide other critical services to avoid contagion in a crisis scenario. In order to assess the availability of additional financial resources for the resolution of the CCP on a standalone basis, resolution authorities **should ensure that contractually agreed arrangements, such as parental support, can be appropriately enforced**. These types of contractually agreed arrangements are however voluntary and must not be made mandatory.

EACH Suggestion #5

Consideration of products cleared by the CCP

To ensure a proportional and robust approach to resolution and in line with our response to Q2 above, we would support that the assessment should **take into consideration the different products cleared by CCP** and the risk linked to these.

Q4. Step 1: The discussion paper outlines a number of high-level default and nondefault loss scenarios that might lead to resolution. Does this cover a sufficiently broad range of scenarios? What other relevant scenarios, if any, should authorities consider in resolution planning?

Default scenarios

EACH Suggestion #6

Additional scenario – Suspension of the clearing obligation

We generally agree with the comprehensive list of scenarios included in the discussion paper. We would nonetheless suggest adding detailed guidance on the suspension of clearing mandates as either an event occasioning CCP resolution or as a tool to be used as part of resolution. A potential suspension of a clearing mandate could create the risk that clearing members would be encouraged to limit their participation in the processes necessary to ensure a successful CCP recovery. If it is envisaged that a clearing mandate could be suspended, we would suggest further clarification is provided on the exercise of such power and how it would fit within the resolution framework.

Non-Default loss scenarios

There are a variety of non-default stresses that could lead to losses at the CCP other than the default of a clearing member. We believe these hypothetical non-default loss scenarios are rightly described in the discussion paper.

Principle of responsibility for NDL

The analysis of NDL, which in many cases would result from events exogenous to the CCP, should be considered from the point of view of the entire market, not just by looking at the CCPs in isolation. EACH believes that each stakeholder involved (e.g. CCP or clearing member) should bear non-default losses if they are responsible for them unless other arrangements are indicated in the CCP rulebook. In line with this, we note that the International Swaps and Dealers Association (ISDA) suggested that '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'. Loss allocation for NDL should therefore be proportional to the level of responsibility and/or benefits extracted from a service of each stakeholder, including CCP owner or CCP user. This principle of responsibility of NDL between CCP and its participants should be mirrored in the resolution planning by authorities. We therefore strongly welcome the reference to this principle under scenario A.2.i) which refers to losses potentially being borne by the CCP's clearing members.

Equity is not the answer for all NDL

NDL represent a different set of risks than Default Losses. We would suggest that when analysing whether the resources needed for potential NDL cases are sufficient, authorities apply a risk approach based on assessing:

- All possible scenarios
- Probability or frequency of occurrence of each scenario
- Possible worst financial outcome from the scenario
- Application of a corresponding probabilistic weighting of the risk when assessing the needed remedy (and evaluating the investment costs for such a remedy).

A failure to apply this methodology could lead to wrong assessments, such as a proposal to increase the CCPs' equity for NDL, which is not necessarily the answer. As described in a detailed 2017 paper² on the subject of NDL, if the existing CCP defences against NDL are not enough, there are other remedies than equity that would be much more adequate (e.g. for liquidity shortfalls, investment losses, legal risks, failure of a custodian or settlement platform, failure of a concentration bank, central banks actions or non-performance of vendors, service providers and IT suppliers).

¹ ISDA Recommendations for CCP Recovery and Resolution Framework, September 2017, Page 9 http://assets.isda.org/media/85260f13-48/d1ef0ce0-pdf/

² 'Recovery and Resolution, A Framework for CCPs', LCH, 2017, pages 14 to 17 https://www.lch.com/system/files?file=media_root/CCP%20Risk%20Management%20Recovery%20%26%20Resolution%20-%20An%20LCH.Clearnet%20White%20Paper.pdf

Even in cases where financial resources could be a response, European CCPs are subject to stringent capital requirements to address specifically operational & legal risk, credit counterparty, market and business-related risks³. Adding Equity on top of this would jeopardise the economics of clearing by imposing astronomical fees that would discourage the use of this the CCPs' management services and a return to the bilateral world. The 2017 paper provides quantitative evidence that that 'there is not much scope for a CCP to carry "dead capital" before it would start returning less than the cost of equity and would discourage private capital from funding the CCP.'

We would suggest that the FSB recognises that CCP Equity is not the preferred answer in all NDL cases.

Q5. Step 2: Are the considerations for conducting an evaluation of existing tools and resources appropriate and comprehensive? If not, what other considerations should be included?

Support the FSB reference to incentives

We particularly welcome the reference made by the FSB to 'the potential impact on stakeholder (including clearing member) incentives to support recovery or resolution', when evaluating existing recovery and resolution tools and resources against potential resolution strategies. As indicated by both CPMI-IOSCO and FSB, a CCP's recovery tools should create appropriate incentives for participants of the CCP to '(i) control the amount of risk that they bring to or incur in the system, (ii) monitor the [CCP's] risk-taking and risk management activities, and (iii) assist in the [CCP's] default management process.'4

EACH Suggestion #7

CCP Equity

As indicted in our response to question 3, resolution authorities should limit their assessments of suitability to the CCP itself. CCPs are stand-alone vehicles that must by their nature have a matched book. There should be no additional mandatory look beyond the CCP, by means of assessing the parent of a CCP or a third party because doing otherwise risks contagion.

In line with the above, we would suggest amending B.1 as follows 'understanding the availability of any additional loss absorbing equity beyond SITG (including **those** contractually agreed from with the CCP's parent), the amount of such additional loss absorbing equity, and how it can be used to cover losses.'

³ EMIR RTS 152/2013, Art. 1.1. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX;32013R0152&from=EN

^{&#}x27;1.CCP shall hold capital, including retained earnings and reserves, which shall be at all times more than or equal to the sum of:
(a) the CCP's capital requirements for winding down or restructuring its activities calculated in accordance with Article 2;

⁽b) the CCP's capital requirements for operational and legal risks calculated in accordance with Article 3;

⁽c) the CCP's capital requirements for credit, counterparty and market risks calculated in accordance with Article 4; (d) the CCP's capital requirements for business risk calculated in accordance with Article 5.

^{2.} A CCP shall have procedures in place to identify all sources of risks that may impact its on-going functions and shall consider the likelihood of potential adverse effects on its revenues or expenses and its level of capital.'

⁴ See CPMI-IOSCO Recovery Guidance at 3.3.7. See also 3.3.7-3.3.11.

We agree, however, that resolution authorities should consider whether the CCP's parent is willing to make further voluntary financial contributions to the CCP in recovery.

Non-default loss (NDL) scenarios

EACH strongly welcomes that authorities should consider the scope and terms of contractual arrangements for allocating NDL to participants (including clearing members). We believe that this consideration is particularly important to address the misconception by some market stakeholders that all NDL should be borne by the CCP. As indicated by the European Parliament 'loss allocation also for non-default losses should be proportional to the level of responsibility of each stakeholder involved'5, as loss allocation for non-default losses should be proportional to the level of responsibility. Our response to question 4 further details our proposals on NDL.

EACH Suggestion #8

Availability and effectiveness of insurance coverage and other third-party resources in resolution

In theory, insurance could be used at any level of the waterfall (e.g. to cover CCP contributions). In practice, it has been difficult to obtain insurance policies for CCPs in recent years, due to a lack of availability of such products in the market. For these reasons, we support the Discussion Paper making it clear that the resolution authority should consider the availability, viability and credibility of any additional arrangements. The resolution authority should also take account of the potentially considerable length of time that it can take to realise claims and the high premiums in this area, which can also make insurance unattractive and expensive when compared to the benefits it provides.

We would nonetheless request that references to such resources in the FSB paper clarify that it is not mandatory to obtain such policies. We would concretely propose the following amendment to the text under B.2: 'Availability and effectiveness of insurance coverage and other third-party resources in resolution where available as this tool is voluntary'.

Q7. Step 4: Is there merit in relevant authorities and CMGs conducting quantitative analyses for the purpose of identifying and sizing potential additional tools or resources for resolution purposes? If so, what quantitative analysis should relevant authorities and CMGs conduct and how could they obtain the necessary data?

EACH believes that authorities should identify the following additional tools or resources:

• **Coordination between resolution authorities**: EACH would like to point out that a strong coordination between resolution authorities should be ensured. Resolutions

⁵ 'Framework for recovery and resolution of CCPs', European Parliament, January 2018 http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2018-0015+0+DOC+PDF+V0//EN

- authorities should develop relevant tools in order to enhance communication between authorities.
- **Detailed financial report**: Appropriately detailed financial reports should be published and audited, including any 'control statement' as should be drawn-up once CCP enters into recovery, and then again upon a CCP enter into resolution.

Cover 2: the robust standard for European CCPs

In line with EU legislation, European CCPs size their default fund size on the basis of the simultaneous default of the two largest clearing members (cover 2). In addition, CCPs have assessment powers, margin haircutting and tear-up tools to ensure a comprehensive recovery plan in a case beyond extreme but plausible. Requiring CCPs to benchmark for an even more extreme event would need to be backed by compelling evidence and analysis, since this brings costs to the market. EACH believes that the Discussion Paper does not identify any risks to CCPs that have not been already identified and accounted for in previous evaluations of CCP resources. We are therefore of the view that there is no compelling argument for requiring CCPs to increase their default fund amount or hold other resources beyond cover 2, plus other resolution tools, which is the current best practice. In practice, there are no examples of European CCPs needing to use any measures beyond its default fund, which suggests that there has been an appropriate understanding of the risks CCPs are subject to and that CCPs have been resourced accordingly in existing regulation and resolution and recovery situations in the market.

Resolution trigger

We would like to stress the importance of points made in our previous response to the FSB Guidance on Central Counterparty resolution and resolution planning in March 2017⁶ regarding the timing of entry (or range of timing) into resolution. We believe resolution authorities should define this timing as follows:

Unsuccessful (or clearly will be unsuccessful) recovery – Authorities should avoid the presumption of resolution for CCPs or the creation of a defined limit to the CCP's recovery plan. Doing so could arbitrarily truncate, or condemn to failure, the recovery process before the recovery plan has had the opportunity to work properly. The resolution authority should preferably intervene after the exhaustion of the resources and tools defined for recovery in a CCP's rulebook and recovery plan. We therefore support the FSB's existing guidelines on resolution which prescribe that resolution is triggered when 'the recovery tools failed to return the FMI to viability, have not been implemented in a timely manner, or relevant authorities determine that recovery measures are not likely to return the FMI to viability⁷.

We understand some authorities may be concerned that intervening too late may result in resolution being less effective. However, any plan developed by resolution

⁶ http://www.eachccp.eu/wp-content/uploads/2017/03/EACH-response-FSB-discussion-note-on-CCP-Resolution-Planning-

⁷ 'Key Attributes of Effective Resolution Regimes for Financial Institutions', FSB, 2014, http://www.financialstabilityboard.org/2014/10/r_141015/

authorities should be mindful of the potential impacts on a CCP's risk management and recovery tools and be designed to ensure that it does not reduce the likelihood of successful CCP led recovery.

• **Early intervention** – If early intervention occurs, it is critical that the legal responsibility of either the CCP management or the resolution authority is clear at all times to avoid a situation whereby the CCP's management would find itself only partially independent but legally accountable for the decisions made.

In addition, in those jurisdictions where early intervention may correspond to the CCP's supervisory authorities, rather than to resolution authorities, it would be of utmost importance to ensure proper coordination, mutual cooperation and information sharing among authorities, with regard to the powers and tools respectively entrusted to them. EACH believes that the CCP should be directly involved in such coordination and information sharing.

It is also critical that, if the resolution authority intervenes early, it continues to execute the CCP's rulebook as a preference and considers the appropriate NCWO counterfactual.

• **Financial stability concerns** – The resolution authority should have to demonstrate that there is clear and convincing evidence that entry into resolution prior to the exhaustion of the CCP's recovery plan would result in greater financial stability (e.g. to avoid a contagion effect across multiple CCPs). We would expect this to be the core driver for intervention. In those jurisdictions where early intervention may correspond to CCP supervisory authorities, rather than to resolution authorities, coordination and mutual cooperation and information sharing among authorities, with regards to the powers and tools respectively entrusted to them, becomes of the utmost importance.

Q8. Step 5: Are the considerations regarding potential means to address funding gaps (including of any proposals to reserve resources for use in resolution) appropriate? Do they adequately address the issues of availability, costs and benefits, impact on and interaction with recovery and business as usual? If not, how should they be framed?

EACH Suggestion #9

Performance of critical service providers

We suggest that the discussion paper contemplate if, and to what extent, the resolution authority may compel a third-party that owes obligations to a CCP in crisis to act. resolution authorities should consider during their assessment whether critical service providers to CCPs may be forced to perform during a crisis situation and how this would be accomplished in an international context.

EACH Suggestion #10

Loss sharing agreements

As the FSB identifies, CCPs may incur losses due to CSD, custodian, bank or other third-party failure. CCPs will hold large volumes of margin with a CSD, if a CSD allocates losses pro-rata on the basis of the amount of assets held with it, this will have a major impact on CCPs. Irrespective of how the CCP holds the margin as a matter of law (e.g. as security transfer or title transfer) a pass-through of loss-sharing imposed by the CSD on the CCP or to the CCP's members can help avoid non-default loss being centralised in the CCP. resolution authorities should therefore consider whether to mandate such loss sharing in the CCP's rules.

EACH Suggestion #11

Recovery and resolution in the event of breach of regulatory capital requirements

EACH proposes the discussion paper to adequately **consider whether recovery and resolution could take place whilst a CCP is in breach of regulatory capital requirements due to the exercise of resolution authority powers.** While the CCP Equity may be written down in some cases as discussed in this response, the scenario of the CCP's regulatory capital being breached due to resolution should be avoided as it would put into question the entire recovery/resolution process and the willingness of participants to continue supporting the CCP in a crisis scenario, since the CCP's licence would be at risk of being revoked, regulators and central banks may be unwilling to allow it to continue operating.

Nature of additional financial resources

We welcome the FSB's suggestion that authorities consider the costs and benefits of potential means of addressing gaps. We particularly support the reference made on page 16 of the discussion paper to the need for authorities to consider the impact on the CCP's ongoing business, potential increase in the cost of central clearing as well the potential impact on the incentives of the CCP's stakeholders.

When considering additional resources, we stress the fact that in terms of regulatory capital, CCPs do not tend to have as many creditors as other financial institutions. They do not have material debt that is subject to bail-in because most CCPs are restricted to using Tier 1 capital and prevented from running a leveraged business model by regulation. In other words, CCPs essentially only have tier 1 equity, cleared contracts, some operational liabilities, margin and SIG; any proposals to increase CCP financial resources would therefore be in the form of this 'costlier' type of capital.

Finally, requiring CCPs to increase financial resources will ultimately make clearing more expensive and therefore less attractive, creating a disincentive to clear. Cost considerations may mean market participants are less likely to voluntarily clear. Arguments in favour of requiring CCPs to increase their financial resources therefore need to be supported by compelling evidence of why this is necessary for the purposes of financial stability. Requiring CCPs to hold ever greater financial resources will increase clearing costs and may endanger

financial stability, as increased prices are likely to mean market participants reduce the volume of their voluntarily cleared trades.

3. Treatment of CCP equity in resolution

Q9. Do you agree that the key issues to CCP equity bearing loss in resolution have been accurately identified? Are there other key issues regarding equity bearing loss? What are they and how should they be addressed?

EACH generally agrees that the key issues to CCP equity bearing loss in resolution have been accurately identified. We have some comments on the timing to impose losses which we include in the answer to question 12 below.

EACH Suggestion #12

Compensation is a threat to the robustness of CCPs as independent risk managers

EACH has strong concerns and suggest deleting from the final guideline the possibility for CCPs to provide in their rulebooks that resolution variation margin gains haircuts (VMGH) would be repaid by the CCP and to compensate clearing members for cash calls. This compensation would break the CCP's incentive structure and therefore jeopardises the current resilience of CCPs, having the following effects:

- Moral hazard This would create moral hazard because clearing members would not
 have an impact on the resources beyond the pre-funded default waterfall (i.e. if the
 resources that they provide are paid back), which will be their incentive they commit
 anything/try to commit more? In the short term, clearing members would not be
 incentivised to bid appropriately in the auction process as additional loss allocation
 tools beyond the default fund will be reimbursed at a later stage. In the long term,
 clearing members might be incentivised to pretend smaller pre-funded resources.
- Reducing the tools available The objective of having the default management and
 recovery tools is to ensure that the CCP has enough tools available to deal with the
 default of clearing members. Compensating clearing members would effectively mean
 removing recovery tools; if a cash call is used to continue the CCP, and is then
 'compensated' back, there effectively was no cash call in the tool kit, as the cash call
 was rather a loan. This raises the question of where the funds to cover the loss will
 ultimately come from.
- CCP operators have very finite resources CCP operators are relatively small companies, particularly compared to banks or other financial institutions. Their only purpose is to perform adequate risk management by ensuring that those that bring risk can pay for it in a mutualised system. CCP operators therefore have very finite resources which are not supposed nor sized to deal with the risk brought by clearing members. The CCP should have enough resources at stake to ensure that it is incentivised to perform adequate risk management, and this is performed through the CCP's own contribution: the 'skin-in-the-game'. Requiring the CCP to prefund an

amount which creates meaningful loss absorbency to excessive member losses would create moral hazard. It would also result in a situation where the CCP capital would return less than the cost of equity, unless the CCPs were to raise clearing fees substantially. This would then have the knock-on impact of further constraining clearing members' balance sheet capacity available to the buy-side, in conflict with the original regulatory goal of addressing systemic risk through increasing clearing flow through CCPs. In other words, clearing would become more expensive and would therefore disincentivise clearing (where optional) from the introduction of such proposals would therefore disincentivise clearing (where optional) and not just in the event of a default.

- Incentives for operating a CCP Compensation to clearing members and/or client would mean that continuing to operate a CCP will be less attractive. This would discourage private capital from funding the CCP, and conflict with the policy of having a private sector solution to the problem of systemic risk. The cost/benefit balance of an equity stake in a CCP must therefore be correctly balanced from the outset.
- CCPs do not keep the clearing members' resources received in recovery CCP's are not risk takers and the CCP is not the receiver of the resources provided by non-defaulting clearing members during the default management process or the recovery phase (Figure 1). The receivers of the resources of non-defaulting clearing members are other financial institutions (which may include the non-defaulting clearing members themselves) that would charge fees to the CCP for hedging the defaulting members' portfolios or that would request discounts in the pricing of the defaulting clearing member's portfolio during the auction phase. The CCP should therefore have no reason to compensate clearing members.
- Continuity of clearing services benefits the whole CCP ecosystem The whole CCP ecosystem (i.e. the CCP operator, the clearing members and clients), and not solely the CCP's shareholder would benefit from the continuation of the CCP: clearing members and clients would be able to continue benefiting from the independent risk management and capital savings of using a CCP. In fact, the shareholders of a CCP operator would see their asset substantially diminished if these rules were ever triggered.
- **Limitation of clearing members' liabilities** In line with regulatory requirements and the requests of clearing members, CCPs' default fund and assessment powers are already limited. Because of this limitation, compensating clearing members would result in the CCP underwriting the risk brought by the clearing members.

We note that the above-mentioned impact on incentives of VMGH is included in the international guidelines on recovery⁸ which recognise that VMGH 'represents a measurable and controllable exposure within statistical confidence levels. Further, because the size of the loss that a participant can face is related to the riskiness of its positions, this tool should provide incentives for participants to monitor the risk that they bring to the CCP ex ante'.

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⁸ CPMI-IOSCO report on recovery (BIS, 2014) available at http://www.bis.org/cpmi/publ/d121.pdf CPMI-IOSCO report on recovery (BIS, 2017) available at http://www.bis.org/cpmi/publ/d162.pdf

Q10. Should the treatment of CCP equity in resolution take into account different ownership structures? If so, how?

EACH Suggestion #3 (same as our suggestion in question 3) No differentiation between CCP ownership structures

As indicated in our response to question 3, CCP ownership structures diverge significantly across CCPs in Europe. In order to assess financial resources for CCP resolution, it appears sounder to assess the resolvability of the CCP on a standalone basis taking into consideration that CCPs are independent entities. Where the CCP is part of a larger group, resolution authorities should duly consider the impact of the resolution of the CCP may have on other legal entities within the group, especially if they provide other critical services to avoid contagion in a crisis scenario.

EACH is not aware of any distinction to the treatment of equity in the context of bank resolution between wholly owned, listed or member-owned (cooperative) bodies. Likewise, CCP equity is not analytically different from banks in this respect. Therefore, we do not believe the treatment of equity should be differentiated on the basis of ownership structure.

Q11. What are your views on the possible mechanisms for adjusting the exposure of CCP equity in bearing loss in resolution set out in Section A? What other possible mechanisms, if any, should be explored?

EACH Suggestion #13

Compensation is a threat to the robustness of CCPs as independent risk managers

As indicated in our response to question 9, EACH believes that compensation to clearing members for their contribution to recovery or resolution represents a threat to the independent risk management model of the CCP.

We understand that some stakeholders may insist on the need for compensation in order to participate in the recovery and resolution process. We believe this argument is flawed because clearing members have a natural incentive to participate in recovery and resolution as a result of their interest in the continuity of the market. More importantly, awarding compensation to clearing members in recovery and resolution would weaken the incentive structure of the CCP on today's default management process to prioritise an unnecessary 'incentive' for clearing members in a relatively unlikely situation, beyond extreme but plausible.

For the reasons above and those outlined in our response to question 9, EACH believes that the FSB should not consider suggesting resolution authorities to provide shares or any other type of instrument as compensation. We would therefore strongly recommend deleting the references made to compensation on page 22 of the discussion paper in any future FSB guidance.

Q12. Section B outlines different options for the point in time or in the waterfall for imposing losses on equity. What are your views on these options? Are there any other possible options?

EACH Suggestion #14

Point in time for imposing losses on equity

CCP Resolution is about a flexible response, and a flexible toolkit that is able to both account for market segments or asset class specifics at various CCPs, as well as respond to unforeseen scenarios in a commensurate way. For this reason, EACH welcomes a wide range of tools to be used by authorities in order to ensure an effective resolution phase. EACH believes that the decision on the timing to impose losses on equity should balance the potential for the resolution authority to act effectively subject to minimum claims and the need to safeguard the CCP's incentive structure. To achieve this, **EACH strongly suggests that the point in time for imposing losses on equity should be at the earliest somewhere close to the end of the application of recovery tools**. This would increase the protection of the resolution authority against further claims, as the equity would be written down in recovery and therefore be part of the counterfactual. At the same time, this approach does not represent a threat to the incentive structure of the CCP because the equity is only written down close to the end of the recovery phase.

In line with the above, we suggest that option ii) only be considered once the recovery tools are exhausted and strongly object to option iii), which we find particularly worrying for the impact on incentives it may have. To illustrate this impact of option iii), Table 1 below shows two examples of potential CCP's contributions ('SIG only' and 'SIG + Equity') to manage a clearing member's default where the CCP provides their resources on a first loss basis.

Table 1 – Examples of the incentive alignment at CCPs

Clearing Member Default Examples	Example 1 – Appropriate Incentive Alignment	Example 2 – Inappropriate Incentive Alignment
Number of Clearing Members	24	24
CCP Contribution to the Default Fund (First Loss) (SIG only)	€150,000,000	-
CCP Contribution to the Default Fund (First Loss) (SIG and additional Equity)	-	€490,000,000
Total CCP Default Fund Prefunded Resources from Clearing Members	€ 2,400,000,000	€2,400,000,000
Total CCP Default Fund Resources	€ 2,550,000,000	€ 2,890,000,000
Clearing Member's Default Loss Amount after using Defaulter's initial margins, variation margins and additional margins (LA)	€(1,000,000,000)	€ (1,000,000,000)

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Defaulting Clearing Member's Contribution to the CCP Default Fund (DCM DF)	€490,000,000	€ 490,000,000
Remaining Loss for Mutualization After Using Defaulting Clearing Member's Contribution and CCP Contribution (RL) = (LA)+(DCM DF)+(SIG)	€(360,000,000)	€(20,000,000)
Proportion of Clearing Member Loss Amount to be Mutualized Across Non- defaulting Clearing Member (RL)/(LA)	36%	2%

During a clearing member default, the CCP will communicate the portfolios for auction to its clearing members. Therefore, the clearing members by design will already know the estimated losses on the defaulting clearing member's portfolio. The CCP's clearing members will take into account the fact that if they fail to provide a good bid, they will be subject to the risk of loss mutualisation. The magnitude of the potential loss mutualisation amount may directly impact the non-defaulting clearing members' incentive to provide good bids.

In Example 1, there is **risk of loss mutualisation for a material amount**, so non-defaulting clearing members are incentivised to provide good bids. Indeed, there is a potential for **36%** of the defaulted Clearing Member's losses to be cured by the mutualised portion of the Default Fund. **A CCP contribution to the losses in this context is appropriately designed** given that it will incentivise clearing members to appropriately participate in the auction given the risk of mutualised losses.

In Example 2, there is risk of loss mutualisation for a *de minimis* amount, so non-defaulting clearing members are not incentivised to provide good bids. Indeed, there is a potential for 2% of the defaulted Clearing Member's losses to be cured by the mutualised portion of the Default Fund. A CCP contribution to the losses in this context is inappropriately designed given that it will not necessarily incentivise clearing members to appropriately participate in the auction given the minimal risk of mutualised losses. This means that the Default Loss may end up being materially larger post-auction thereby exposing the CCP's resources to greater strain.

Q14. Section D outlines a number of policy considerations for the treatment of CCP equity in resolution. Are they appropriate and comprehensive? Would you suggest any additional policy considerations?

The discussion paper raises the prospect that CCPs, and in particular shareholder-owned CCPs, may not be properly incentivised if equity is not put further at risk. We strongly disagree with this suggestion and support the countering argument set out in the discussion paper that: 'shareholder-owned CCPs are likely to already have strong incentives to pursue effective risk management to avoid the reputational loss and consequent loss of enterprise value – that would result from a risk management failure'.

Q16. How could authorities reconcile the expectations that equity bears loss in resolution with the 'no creditor worse off than liquidation' safeguard?

EACH Suggestion #15

Two proposals to reconcile the expectations that equity bears loss in resolution with the 'no creditor worse off than liquidation'

To reconcile the expectations that equity bears loss in resolution with the 'no creditor worse off than liquidation' principle and therefore address the balance of increasing the safeguard of the resolution authority while ensuring enough flexibility to deal with resolution, we suggest two approaches:

- **Approach 1** Equity loss-baring in recovery
- **Approach 2** Value of continuity as the right counterfactual

These approaches are detailed below:

Approach 1 - Equity loss-baring and NCWOL

As indicated in our response to Question 12, EACH believes that in order to balance the CCP's incentive structure with the expectation that equity bears loss in resolution without minimum effect on the 'no creditor worse off than liquidation' safeguard, therefore minimising the potential claims towards authorities and maximizing their flexibility, EACH strongly suggests that the point in time for imposing losses on equity should be close to the end of the application of recovery tools. This would increase the protection of the resolution authority against further claims, as the equity would be written down in recovery and therefore be part of the counterfactual. At the same time, this approach does not represent a threat to the incentive structure of the CCP because the equity is only written down close to the end of the recovery phase.

Approach 2 – Value of continuity as the right counterfactual

The NCWO counterfactual is a crucial feature of a well-functioning CCP Recovery and Resolution regime, as it should balance the protection of resolution authorities with the incentives for clearing members to participate in the recovery and resolution of a CCP. The NCWO counterfactual is understood as the alternative to the resolution authority intervening (i.e. which losses would clearing members have incurred if the resolution authority had not intervened). As with Approach 1 above, EACH believes that using the concept of 'value of continuity' developed below as the NCOWL counterfactual would effectively protect the resolution authority from claims, allow them flexibility of action and ensure that clearing members are not unduly disadvantaged in CCP recovery and resolution.

The 'value of continuity' counterfactual is based on the desired level of market participants to continue with the functioning of the CCP as follows:

- If participants evaluate that the burden imposed by loss allocation which would be necessary for (partial or full) continuity is too high, the CCP should be closed;
- If the problem is rather that the existing available resources are too low to achieve (desired) continuity, then loss allocation and tool usage should be broadened to enable this. Under this scenario, participants should not be able to claim, since the increased continuity was in their favour (i.e. the losses allocated to them to achieve continuity were smaller than what they would have incurred if the CCP had closed).

The equilibrium between an adequate incentive structure and the NCWOL safeguard could be further strengthened if the counterfactual to the NCWOL was understood to be large enough for authorities to be protected largely from claims but adequate enough for it to still incentivise clearing members to participate in the CCP's recovery. A broad definition of the NCWO counterfactual would address the concerns of authorities regarding potential shareholders' claims to the resolution authorities.

EACH agrees with the suggested costs described in the discussion paper related to the potential losses and operational matters. We would suggest the FSB to detail the operation costs to include at least:

- closure of positions
- replacement cost of reopening positions either with a different CCP or in the bilateral market
- liquidating the CCP through normal insolvency procedures in line with local requirements

The calculation of the potential losses that would result from the above should be straightforward: the default waterfall and the recovery tools are predefined in the CCP's operating rules. The losses and costs of closing a CCP should be easily calculated as derived from the existing costs of clearing at the CCP plus an add-on to account for the replacement costs. These losses and costs would have the following components:

- In case of transferring to another CCP:
 - The cost of **reopening positions** with another CCP (e.g. membership fees, contribution to the new CCP's default waterfall, bid/ask spreads, adverse price moves, potential technological/IT adjustments).
- In case of reopening positions in the bilateral market:
 - The cost of additional capital and margin requirements that bilateral contracts would be subject to (e.g. higher capital requirements than the 2% to 4% related to CCP exposures; VM is no longer netted out by limited recourse; IM charges from client to clearing and also from clearing member to clients). Several pieces of research have analysed the estimated quantitative impact of transitioning from a cleared environment to a bilateral one.

- The cost of replacing the client accounts in the CCP with positions directly with the clearing member. This cost arises due to the lack of netting benefits related to omnibus accounts.
- The cost of closing the clearing members accounts with the CCP. This cost arises in case there are offsets between positions in the house account of the clearing members. If this is the case, margin benefits will be removed as a result of closing positions with the CCP.

Q17. What, if anything, should change with respect to the treatment of CCP equity in resolution either to clarify existing arrangements or to potentially adjust the exposure of equity bearing loss in resolution (for example, setting out any additional measures to have equity bear loss in resolution in CCP rulebooks)?

As described above, we would strongly urge that if equity is to be awarded, this should only occur once (and that this sequence is respected in all instances):

- All loss allocation measures and recoveries from defaulting counterparties have been applied;
- The CCP's owners are unwilling or unable to recapitalise the CCP; and
- Existing equity has been written down,

- END -