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## FIA Response to BCBS-CPMI-IOSCO Consultation Paper on Margin Transparency and Responsiveness

Submitted via email to [baselcommittee@bis.org](mailto:baselcommittee@bis.org), [cpmi@bis.org](mailto:cpmi@bis.org) and [margin@iosco.org](mailto:margin@iosco.org).

To the attention of the Basel Committee on Banking Supervision (“BCBS”), the Committee on Payment and Market Infrastructure (“CPMI”) and the International Organization of Securities Commission (“IOSCO”) Secretariats.

The Futures Industry Associations (“FIA”) welcomes the opportunity afforded by the BCBS, CPMI and IOSCO to provide comments on the consultation report *Transparency and responsiveness of initial margin in centrally cleared markets: review and policy proposals*<sup>1</sup> (the “Consultation Paper”). The COVID crisis and Russia’s invasion of Ukraine highlighted the need for clearing participants to better understand margin models and collection practices of Central Counterparties (“CCPs”) globally. We welcome the outstanding and ongoing work that the international standard setters have been conducting on this topic over the past few years.

FIA, as part of its mission statement, is committed to support transparency, and to protect and enhance the integrity of the financial market within the derivatives clearing community and, to this end, published several papers over the past few years exploring and recommending best practices for CCP risk management. Most relevant are the recommendations and policy options published in the report from October 2020 *Revisiting Procyclicality: The Impact of the COVID Crisis on CCP Margin Requirements*<sup>2</sup> and the report from November 2018 *Central Clearing: Recommendations for CCP Risk management*<sup>3</sup>, which cover CCP margin practices recommendations and discussions amongst other topics. In addition, FIA and its members have extensively engaged with regulators and with the BCBS-CPMI-IOSCO margin practices working group over the course of last year to provide members’ views and experience to feed into this work and this consultative report.

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<sup>1</sup> [Transparency and responsiveness of initial margin in centrally cleared markets: review and policy proposals](#)

<sup>2</sup> [Revisiting Procyclicality: The Impact of the COVID Crisis on CCP Margin Requirements](#) paper released in October 2020 by FIA

<sup>3</sup> [Central Clearing: Recommendations for CCP Risk management paper released in November 2018 by FIA](#)

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We welcome the proposals set forth in the report and are grateful for the international standard setters to have taken on board our message conveyed over our various interactions and publications over the last few years. The proposals, especially those relating to CCPs transparency and responsiveness, are very positive developments and a step in the right direction that would benefit the entire derivatives community. Our response aims to provide additional input and recommendations but also outlines reservations on proposal concerning clearing members' transparency.

We are grateful to BCBS, CPMI and IOSCO for giving us the opportunity to comment on the consultation and we remain at your disposition to discuss further our remarks or the proposals.

Respectfully submitted,

Jackie Mesa  
FIA Chief Operating Officer and Senior Vice President of Global Policy



## Executive Summary

FIA is the leading global trade organization for the futures, options, and centrally cleared derivatives markets. FIA's mission is to support open, transparent, and competitive markets; protect and enhance the integrity of the financial system; and promote high standards of professional conduct. FIA's membership includes clearing firms, exchanges, clearinghouses, trading firms and commodities specialists from more than 48 countries, as well as technology vendors, lawyers and other professionals serving the industry.

As part of our mission statement, we strongly support transparency in centrally cleared derivatives markets. This includes not only transparency into the markets in which derivatives trade but also the clearing process that takes place after trades. Transparency in the post trade process can bolster industry resilience and preparedness through the adoption of increased visibility into CCPs margin methodologies, the implementation and development of consistent disclosures standards, and access to margin simulation tools for clearing members and their clients amongst others.

We commend the effort of the BCBS-CPMI-IOSCO Margin Group for their work to set forth this Consultation Paper. We are grateful for the opportunity to provide comments on this important work which has been one of the key priorities for FIA and our members over the past few years and we welcome the proposal. We consider this proposal as a positive development towards enhancing transparency and preparedness in our industry.

At a high level, we strongly support the proposals, in particular, recommendations 1 to 8 in relation to the CCP additional disclosures and simulation tools. We believe that, if implemented and monitored consistently across jurisdictions, the first 8 proposals will certainly increase transparency and enhance understanding of CCPs margin models, their main components and their responsiveness to changing market conditions. This will most certainly help clearing members, their clients and more broadly, market participants, to be better prepared to mitigate large and/or sudden changes in margin requirements. We would recommend that these proposals should be clear and avoid to the extent possible any language open to significant interpretation. Moreover, we strongly recommend that proposal 3, requiring CCPs to make margin model documentation available to clearing members, should be extended to clearing members' clients (i.e., direct provision of margin model documentation by CCPs to clients) supporting consistency and efficiency of documentation disclosures throughout the clearing chain.

However, our response also highlights some concerns, especially regarding proposal 9 on clearing member transparency. While we support the principle of clients having sufficient transparency into CCP margin and any additional margin they may be charged by their clearing member ("CM"), we believe that proposal 9 is too prescriptive and maybe disproportionate to the role that additional CM margin plays within the system. In particular, we believe that proposal 9 requiring CMs to make available a simulation tool to their clients is extremely challenging and perhaps premature. We therefore recommend excluding that specific requirement from the proposal. We also make recommendations on the efficacy of proposal 9 to make it more proportionate and flexible.

We also have concerns regarding proposal 10 on the additional CM disclosures to CCPs. We support the principle that CCPs should have visibility into the risk profile of their clearing participants, as this benefits the overall safety and soundness of the financial system. Indeed, CMs already provide such disclosures as required through CCP due diligence processes. Any further standardized disclosures from CMs to CCPs should be strictly limited to the information CCPs require for risk management purposes and should appropriately address confidentiality and commercial concerns. In some cases, regulators would be better placed to receive this information given regulators' role over financial stability. At this stage we believe it is premature to move forward with proposal 10.

We also have outlined some missing elements under the proposal which could help the margin group to meet its objectives such as considering the inclusion of default fund methodologies or standardisation of CCP margin outputs amongst others.

One area of the consultative report which deserves further focus is margin model responsiveness. We recommend this as an area for further work by BCBS-CPMI-IOSCO, as this is fundamental to managing the challenges posed by procyclicality.

The following section of our response provides a comprehensive set of responses to the questions posed in the consultation report, delving into specific details, considerations, and recommendations.

## Detailed Response

### General questions

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1. Collectively, if adopted, would the set of proposals likely result in increased transparency and a mitigation of destabilising changes in margin requirements in centrally cleared markets? Please identify within the set of proposals any which would be particularly beneficial and others which may be less beneficial (eg where the costs may substantially exceed the benefits). Please provide an explanation to your answer.
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We believe that the set of proposals will certainly result in increased transparency and potentially mitigate against unpredictable changes in margin requirements for most participants in centrally cleared markets. Notably, the requirements for simulation tools for core Initial Margin and Additional Margin and the inclusion of various scenarios provide a comprehensive risk assessment mechanism for CM and their clients. Additionally, the proposals for CCPs to disclose to their CMs margin model documentation and to disclose publicly their anti-procyclicality (“APC”) tools as well as governance and procedures on the use of discretionary overrides of model margin requirements would enhance transparency to all clearing participants and market participants more generally. We support transparency to clients and we do understand the need for CCPs to have information about clearing members due to the oversight and important risk management role they play. However, some of the proposals do not relate to the CCP’s oversight and risk management role and are commercially sensitive.

#### Proposal 3: Margin models documentation disclosure to CMs

We are very supportive of proposal 3 to make margin methodology documentation available to CMs. However, the caveat “where legally permissible” raises questions about the extent of transparency. We would therefore strongly recommend a set of consistent disclosures to the CMs for key aspects of margin models to address this concern and enhance transparency as well as CMs understanding of the margin models of the CCPs concerned.

While the minimum requirements for CCP to provide margin simulation tools will help enhance preparation of the margin impact from various components and help market participants mitigate against potential increases in margin, margin methodology documentation would provide essential insights for CMs. This will assist in better understanding the margin models’ designs and the relevant assumptions which would, in turn, prove essential in assessing the robustness of the models and facilitate constructive risk management discussions between CMs and their CCPs. We recommend that the documentation include practical examples such as step-by-step calculations for outright and spread trades and that the documentation should clearly delineate for each clearing segment of a CCP all quantitative measures such as Margin Period of Risk (MPOR), lookback period, APC tools and add-ons (concentration and liquidity amongst others).

We understand that most CCPs have external representation of members and clients in their risk management committees and share useful information such as results of annual model validation. However not all members and clients are represented on these committees, therefore we have defined a list of key information in Annex B which CMs believe should be consistently disclosed by CCPs.

Currently, as the report indicates, there are wide variations of disclosures by CCPs to their CMs. Most CMs request this information bilaterally and CCPs usually provide answers verbally resulting in inconsistencies and varying levels of details being disclosed between CMs. We suggest CCPs consider making available such sensitive information to their CMs via a secure portal, or any other secure connection that makes it accessible in a regular manner for all CMs and clearing participants without discrimination. Even further, we recommend clients to have similar access to the methodology documentations via the same secured portal as CMs. This will avoid any discrepancies and inconsistencies in the information relayed to CMs and their clients separately by the CCPs, which is a key issue that CMs have raised while working on this response.

Indeed, FIA members provided comments indicating that because a client has no legal relationship with a CCP, the CCP generally disclose very little to no information. Clients therefore turn to their CMs who may have to request and/or confirm they can disclose that information. The process is very inefficient and can be frustrating for all parties involved (CCPs, clients and CMs). We believe that providing consistent margin methodology documentation to CMs and their clients would be extremely beneficial on several aspects for all parties. We develop this further in our comment on Proposal 9: CMs transparency to their clients where we strongly recommend extending proposal 3 to include CMs' clients.

#### Proposals 4 and 8: Public disclosures of APC and margin model overrides

We also strongly support proposal 4 related to APC public disclosures, including tools, models, and reporting frequencies. However, this proposal states that “*CCPs should also publicly disclose and describe, **at a high level**, the model components that affect the level of model responsiveness*”. We recommend proposal 4 not to include “at a high level” as it can be open to different interpretation by authorities and CCPs and will potentially lead to inconsistent information and varying degree of details reported publicly. Instead we would recommend policymakers to consider the list of items in Annex C to prescribe the level of information required for public APC disclosures.

Similarly, we welcome and strongly support Proposal 8, particularly paragraph 8.b requiring CCPs to publicly disclose “*relevant information regarding the scenarios where discretion may be applied and the governance procedures for the application of such discretion*”. However, we note that proposal 8 does not include procyclicality effect when establishing clear governance procedures and triggers for such overrides, and we suggest that CCP should also include any APC considerations.

In addition, we recommend that CCP should generally strive to define qualitative and quantitative criteria to minimize the discretionary aspect of such overrides, and to communicate, with as much notice as possible, the rationale and expected impact to CMs and clients. We note that any material changes to the discretionary overrides' framework should follow a governance procedure requiring relevant discussions with the Risk Committees, to include provisions to justify any actions not approved by the Risk Committee. We believe it is important to have clear accountability as to who has ultimate responsibility over discretionary overrides, hence the need for a robust and transparent governance framework for such process. The text of proposal 8 should be considering instances where, at the very least, communication with the Risk Committees or CMs can only be performed after the fact, such as during elevated period of market stress.

We also strongly support paragraph 8.c. requiring CCPs to “*publicly disclose, through additions to the PQDs, the aggregate size and duration of manual margin overrides, as compared with unadjusted IM requirements*”. This would provide valuable insight for market participants to understand the frequency and magnitude of the discretionary overrides and to better assess CCP margin model robustness, especially considering the qualitative explanation for the overrides. However, we note that proposal 5, relating to the PQD report change, does not include such data in table 5 of the Consultation Paper or as potential additional fields. We would suggest adding this set of data in proposal 5 (see our response below to question 6).

#### Proposal 9: CMs transparency to their clients

Currently most clients post, at minimum, the required CCP margins to their CMs. Therefore, the vast majority of clients' margin is directly related to CCP margins, which is why proposals 1 to 8 are so important. Considering this, CCP margin methodology transparency to clients would be more appropriate if coming directly from the CCPs themselves, such that disclosure documentations under proposals 3 to 6 and proposal 8 can be met without CMs interpreting CCPs documentations on behalf of their clients leading to potential risks including the risk of disclosing information that the CCP would deem confidential and to be shared only with CMs, subject to non-disclosure arrangements. In line with proposals 1 and 2 requiring CCPs to provide their simulation tools to all CMs and their clients, we recommend that the same should apply to such documentation and amend proposal 3 “*where legally permissible, CCPs should make margin model documentation available to CMs **and their clients** at a level that can enable them to understand key aspects of the CCP’s margin model and its approach to risk management*”.

We understand and agree that CMs should make transparent to their clients any additional requirements topping CCPs requirements. However, we do have strong reservations regarding paragraph 9.c. requiring CMs to provide their clients their “*own simulators, where appropriate, or private disclosures of the margin requirements clients may be subject to under different scenarios*”. As per our response to question 9 below, we believe that providing clients with the CM’s simulation tool is not the most efficient way to address transparency and responsiveness concerns.

Firstly, the additional disclosures and simulation tools for CCPs to make available to CMs and their clients, as proposed under this Consultation Paper, should largely reduce this need from clients. Indeed, CCP margins remain the principal and most critical component of the margin applied down the chain to CMs and their clients. Secondly, we believe it is important to further explore end-users’ requirements as the majority of clients, especially institutional clients have several CMs relationships, and therefore might be expecting a solution that no CMs on its own can provide.

Moreover, the development and implementation of a CM simulation tool would be extremely challenging. In contrast to CCPs, CMs are dependent on upstream information that they have no control over (or limited to no transparency at this time), the CCPs margin output. In addition, it should be noted that CCPs only have a fraction of CMs relationships compared to the number of clients relationships CMs have. In addition, CMs manage a broad range of clients, and most are risk managed differently to cater for their specific investment strategies or risk profile.

Therefore we would recommend that the final text should exclude reference to the CM’s own simulator and read “*This understanding should be facilitated through the provision of ~~CMs’ own simulators, where~~*”

~~appropriate, or~~ private disclosures of the margin requirements clients may be subject to under different scenarios.”

#### Proposal 10: CMs transparency to CCPs

The transparency requirement of CMs to their CCPs raises concerns. Evaluating the added value of such data and explaining its importance in relation to the CCP’s role overseeing their CMs is crucial. Most importantly, it is essential to understand and assess clearly what CCPs would be able to do with such data, what risk CCPs are trying to mitigate, and if the benefit of this proposal would outweigh the implementation cost for CMs.

The Consultation Paper outlines liquidity preparedness as the main objective but the information requested is generally stale and most likely would be out of date in the event of market or liquidity stress, prompting questions as to its usability. We believe it is more appropriate that such information should be disclosed to regulators given its financial stability implications and regulators’ view of the entire clearing ecosystem.

Additionally, we would like to note that most of the information requested is available publicly such as the CMs memberships to CCPs and that other information is provided by the CCP to the CMs such as the Power of Assessment. The latter type of information is often not being disclosed accurately or regularly by the CCP to their CMs, potentially making it challenging to CMs to aggregate this information due to some CCPs lacking effective disclosure process. For the former type of information and as the report states<sup>4</sup>, if CCPs would use a standard disclosure form, CCPs themselves or a potential 3<sup>rd</sup> party could relatively easily collect this type of data.

Finally, proposal 10 doesn’t specify whether such disclosures would be public or private and it is important to highlight the anti-competitive and commercially sensitive nature of the information requested such as the % of Initial Margin or Default Fund from for the top 1-3 CCPs.

#### Consistent implementation and ongoing monitoring of compliance

These proposals will be extremely beneficial and meet the transparency objectives only if these are mandated, consistently implemented and regularly monitored and assessed for compliance. While the report indicates that the proposals will be referenced as part of the CCP resilience guidance document<sup>5</sup>, we have reservations regarding consistency of implementation across different jurisdictions. We would welcome any further clarifications as to the implementation framework of these proposals once finalized.

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<sup>4</sup> Page 13 of the CP: “For instance, a number of CCPs publish a list of their members, and so the list of CCPs of which an entity is a member may be partially derivable from existing information. However, it is also the case that this information can often be public in a wide variety of formats, and the level of granularity can differ from CCP to CCP.”

<sup>5</sup> See CPMI-IOSCO, Resilience of central counterparties (CCPs): Further guidance on the PFMI – Final report, July 2017



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2. Are there any aspects of margining practices in centrally cleared markets that have not been adequately covered by the set of proposals and which could positively contribute to achieving the Margin Group's objectives?
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After reviewing the set of proposals, we have identified below few missing elements which could potentially help achieve the Margin Group's objectives.

#### Public and consistent disclosures of margin methodologies

We believe that CCPs should be transparent about their margin methodology publicly and in a consistent manner across all CCPs globally. Such transparency could be at a higher level than the documentation disclosed to CMs (as per proposal 3 with our recommendation to extend it to CM's clients) and will have the benefit of avoiding any conflicting information being relayed from different clearing counterparties. For instance some of the information obtained by CMs could be confidential and/or mis-interpreted during verbal communication with a CCP. We recommend that CCPs disclose publicly such information in order to meet the transparency objectives and enhance understanding of the CCPs margin practices to a broader set of market participants.

#### Default Fund Contributions

While we understand rightly that Initial Margin is the primary focus of this report, any aspects not encompassed by IM are typically covered by the default fund. Therefore we believe that a comprehensive evaluation should also consider default fund contributions, given the potential opaqueness and procyclicality in CCPs' methodologies. Similarly to margin, in times of market stress or increased volatility, default fund requirements might escalate, placing additional burdens on CMs and exacerbating the procyclical impact of their overall exposures to the CCP. The impact could be even wider as some CCPs do not update the default fund size and the default fund contribution frequently, leaving CMs exposed to high increases in default fund contributions in one go, adding further liquidity constraint.

We recommend the inclusion of additional proposals for CCPs to incorporate measures to mitigate the procyclical nature of default fund contributions. This could involve establishing mechanisms for more predictable and gradual adjustments to default fund requirements, aligning them with market conditions to avoid abrupt and destabilizing changes. Additionally, some default fund methodologies remain opaque to CMs, and further documented disclosures similar to the margin methodology documentation would be valuable in assessing any potential impact in stress conditions. Such documentation should also include description of discretionary requirements relating to default fund which seems prevalent for certain CCPs and usually unexplained to CMs, adding further complexity for them to assess their potential contributions. For instance, a CCP might decide to deviate from the default fund size methodology as a reasonable risk management action under stressed market conditions impacting directly CMs default fund contributions, and therefore reasonable advance notice of such decision would assist CMs in their liquidity needs.

#### Ad hoc Intraday Margin

We also noticed that intraday margin calls were not included. We understand that the margin group is also reviewing how to streamline Variation Margin ("VM") in cleared markets and published a discussion paper in relation to this shortly after the report on Margin Transparency and Responsiveness. This

discussion paper, however, only proposes eight effective practices to intraday VM but does not cover extensively intraday Initial Margin (intraday IM).

We believe it is important to have proposals on intraday initial margin establishing clear implementation guidelines on how and when ad hoc intraday margin calls should be communicated and managed to limit uncertainties for market participants, especially in times of stress. We recommend these proposals to incorporate transparent and standardized protocols for ad hoc intraday margin calls such as defining the circumstances triggering ad hoc calls, specifying notice periods, and outlining the processes for netting payments and using excess collateral. We will be responding to the discussion paper on streamlining variation margin in cleared markets and providing more detailed comments in our response.

#### Standard taxonomy

We believe that a global taxonomy of risks being captured should be defined and used by CCPs in their disclosures. As outlined in the 2012 PFMI (Principle 6 Margin) and highlighted further in the 2017 Resilience of CCPs: Further guidance on the PFMI (Section 5.2.12 Margin System Components), CCPs generally capture similar types of risks, such as price risk, delivery risk, wrong-way risk, concentration risk, non-linear risk, stress risk and others. Having a common set of risks captured by CCPs as part of their core Initial Margin or additional margin will increase the consistency and possibly the quality of the disclosures allowing market participants to better understand what risks and how risks are managed and margined. Under Annex B, we have provided a list of the main risk types generally captured by CCPs.

#### Standard margin output

Further to the standard taxonomy, we also observe inconsistencies on how margin information is distributed to CMs. Some CCPs might provide only overall margin figures without essential breakdowns. We recommend a common set of margin figures be distributed to CMs and clients where applicable, breaking down margin figures between core Initial Margin and the different additional margins. These figures should be provided for all applicable individual accounts. Such standard output will maximize the utility of information throughout the clearing chain, alleviating current issues faced by CMs and their clients when assessing daily margin requirements, their components and the drivers.

#### Collateral Haircut

The collateral posted by CMs and their clients plays a crucial role. Indeed, while the margin establishes the minimum required deposit, the collateral acts as security, ensuring there are sufficient assets readily available. CCPs use collateral haircut models to calibrate the haircut, or a discount rate, that should be applied ensuring to the collateral. However, little information is provided to CMs and clients on the methodologies employed by the CCPs.

While transparency on margin methodologies is extremely important for CMs and clients, collateral models' transparency is equally as important. Therefore, we believe that collateral methodologies' transparency to CMs and their clients deserves appropriate attention and we recommend considering its addition to the proposals.

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3. Many of the proposals recommend that a market participant group (eg all CCPs, all CMs etc) be required to provide enhanced disclosure or adopt a new practice. Should the principle of proportionality, with requirements dependent on participant size or type, be used in determining how different firms apply the proposals? If so, in what ways? Please specify the proposal(s) in your response.
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We strongly recommend that no proportionality applies. In the recent past, most of the credit events stemmed from smaller firms or CCPs such as the LME nickel crisis in 2022 and its impact on LME Clear, the 2018 default of a CM at Nasdaq Clearing and the 2014 default of a CM at KRX. These observations show that large credit events tend to take place at relatively smaller CCPs. The provisions of such transparency not only will provide meaningful insights into margin methodologies and potential margin changes but also essential information into how CCPs, large or small, approach risk management generally. This will enable constructive conversations between clearing participants, improving risk management practices of the clearing ecosystem.

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4. Are there cases in the proposals where there could be an effect on bilateral market margining? If so, what are the factors or instances that should be taken into consideration to ensure that proposals for cleared markets do not negatively affect dynamics within other markets?
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While bilateral market margin is not part of FIA's remit, our members do not have concerns that these proposals would negatively affect dynamics with other markets.

## CCP Transparency

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5. Proposals 1 and 2 recommend that margin simulation tools be made available by all CCPs to all CMs and clients, with enhanced functionality.
    - a. Are there certain modes of access to CCP simulation tools which are less costly or more effective?
    - b. Are there any impediments to making simulators available to clients? To what extent could these impediments be mitigated or resolved, eg by changing the mode of providing access to tools, or how clients request access to tools? Does this depend on the format of CCP tool (eg the use of cloud technology, the use of APIs, etc)?
    - c. Are there any reasons why the proposed historical and hypothetical scenarios to be provided as part of the simulator tool suite should differ from the CCP's current set of extreme but plausible stress test scenarios? In addition, would there be additional value in allowing users to customise their own scenarios within the simulator tool? If so, what types of customisation would be of most value?
    - d. Are there any elements of the initial margin calculation (eg add-ons) which would be difficult to incorporate into a standardised simulation tool? If so, what are the relevant challenges?
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We support proposals 1 and 2 regarding CCP simulation tools to be made available to all CMs and clients, and not necessarily publicly, with enhanced functionality which at the minimum should provide Initial Margin and additional margin under current conditions, but also under different scenarios. The inclusion of additional margins in the CCP margin simulation tool is the most urgent to address. We believe that CCPs being able to calculate these additional margins systematically must be able to include them as a standard feature in their simulation tool. We also believe that the CCPs should make these tools free of charge to their CMs and clients, at the very least the free features should be covering the minimum outlined in the proposal. CCPs might charge only for other extra features.

### CMs and Clients access

The most appropriate access for CMs and their clients would be via both a secured web application and API. The typical use case for a secure web application (or Web Based GUI) would apply to smaller portfolios while the use of API would more likely apply to larger portfolios. We propose that CM's access should be granted by the CCPs, while client's access should be granted by the CMs allowing for hierarchical access structure where permission and rights can be delegated down the chain (eg CMs and clients providing clearing services and clients/end-users) such as Discretionary Access Control or DAC.

The tool should meet some minimum standards, especially during periods of stress where multiple users might be requesting multiple calculations for the purpose of estimating their risk and margins, ensuring the tool can be used reliably under severe conditions and that any outage can be mitigated through appropriate measures.

### Simulation scenarios

The inclusion of scenarios is a very positive development as it will provide clearing participants with a tool to assess how margins can change under different circumstances, providing valuable insight in relation to liquidity preparedness. We acknowledge that the inclusion of scenarios could be challenging in its development due to the large amount of data to be considered and the potentially intense

computational needs. Therefore we suggest a couple of options regarding the inclusion of scenarios in the simulation tool, one perhaps relatively easier to implement with lower development costs and another option which is ideal but possibly more challenging in its development and computational needs.

- Option 1: Leveraging on the CCP full stress scenarios suite

One way to incorporate historical and hypothetical scenarios into the margin simulation tool would be to leverage on the existing set of scenarios the CCPs already use. While the output would not be based on the margin methodology to compute initial margin or additional margins, the information of the scenarios stress losses would be valuable for the CMs and clients to assess their extreme losses and make crude “worse case” margin requirement estimates. Such features would require information of stress PnLs to be detailed enough such that CMs and clients can determine which positions or group of positions might be driving the stress losses.

There are several advantages to using such an option: CCPs already have these scenarios set up, the scenarios can be historical and there are no specific concerns or challenges to include hypothetical scenarios. Additionally, scenario losses can be easily understood by CMs and clients without providing detailed methodology documentation. However, information can only be useful if it is granular enough such that stress losses can be easily identified. This implies that stress results should be available for product or group of products under each portfolio and the nature of the shocks should be available under each scenario.

Moreover, CCPs already frequently run these scenarios, some on a daily basis, and therefore we believe that disclosing the scenarios PnLs at a granular level (at position level under all accounts) on a daily basis to CMs and clients would be a more straightforward development for CCPs.

- Option 2: Developing margin scenario simulations

Another way (or complementary to option 1) is for CCPs to develop margin simulation tools that simulate actual margin (instead of stress PnLs in option 1). This could be a more challenging feature to develop as such scenario simulation utilizes a larger and long continuous historical data set. Ideally this would allow CMs and their clients to assess margins for any portfolios over specified past dates. For instance, CMs and clients would be able to replay, for a set of days, daily margins as it occurred during the COVID19 pandemic for contemporary or theoretical portfolios. CCPs should have continuous historical data with enough lookback to include major stress events for specific asset classes (such as Lehman’s collapse or 2009-2010 European Debt Crisis amongst others). Such features will become extremely useful as CCPs margin models move from a SPAN-type methodology to a portfolio VaR methodology.

Under option 2, we recognize the challenge in including hypothetical scenarios for margin scenario simulation, as margin usually is a function of past historical data and not based on single or limited data points, unlike stress test scenarios which use a single shock to determine a stress PnL. However, the use of margin sensitivity to inform on margin estimation can be, in a way, similar to hypothetical scenarios. For instance, core initial margin models operate under different parametrisations such as n-day MPOR or a certain confidence level amongst others. The tool could provide a replay of margin under different

parameters such that CMs and clients can assess the sensitivity of margin under their own defined parametrization. This would complement effectively with the historical replay under the current CCP parametrization. As an example, one clearing participant could replay over a certain range of days, the COVID19 Pandemic margin under the standard parameters, that is the historical scenario, and also do the same replay with a slightly elevated confidence level (or any other change in parameters concurrently or on a standalone basis) as hypothetical margin scenario.

Under option 2, the margin simulation tool would not necessarily require having the CCP's full set of extreme but plausible scenarios as long as margin can be replayed over a long enough lookback period which includes relevant past stress events. However, if a CCP uses its extreme but plausible scenarios as part of a systematic additional margin, it is expected that the estimation of this additional margin is included in the simulation tool and therefore, that these set of hypothetical and historical scenarios are included. We acknowledge CCP's concerns on disclosing stress scenarios that CMs may arbitrage stress-based calculations, but we believe that such concerns would be far outweighed by the benefit CMs and potentially clients receive in transparency and can be largely mitigated by CCPs having a robust stress test framework design.

Furthermore, considering that:

1. CCPs stress scenarios drive the size of the default fund and CMs default fund contributions, and
2. CMs default fund contributions represent at least 90% of CCPs default fund.

We believe that CMs should have appropriate transparency and context of the CCPs stress scenarios as CMs backstop the CCPs in the event of a default (or in most case non-default) scenarios with substantial capital at risk. CMs should have visibility and understand how this capital is sized, allocated and protected.

#### Systematic and discretionary additional margins

We believe that any systematic additional margin (computed or model based) would not be challenging to include in the margin simulation tool. CCPs have developed models to compute these systematic additional margins in the same way as their core Initial Margin therefore we do not see any impediments to incorporating any of these models in the margin simulation tool.

However, we understand that including discretionary additional margin might be challenging if not systematically computed or model based. We would therefore strongly recommend that CCPs provide sufficient transparency (including thresholds, triggers and governance arrangements amongst others) allowing CMs and potentially clients to understand and assess the likelihood and magnitude of such discretionary additional margin.

Furthermore, it has been observed that some additional margins can apply to specific accounts but also at the aggregated CM level, such as concentration or stress additional margins. While the margin simulation can provide the estimate for this additional margin at the account level, there no estimation tool for margins applied at the CM's level and is limited transparency (if any) as to the methodology and thresholds employed. For example, concentration, liquidity and stress additional margins can be charged against each account (clients and house) but also can be topped up by an aggregated additional margin at the CM level. Therefore, we recommend that the margin simulation tool should include additional margins that apply at the CM level as well as providing details of thresholds and methodology employed



to the CMs. We would also recommend that additional margins should be calibrated fairly between exposures at account level and exposure at the CM level to ensure that risk is allocated to the right counterparty respecting the spirit of the defaulter's pay principle.

#### Default Fund Contributions

While margin (Initial Margin and Additional Margins) is typically the larger requirement component across both clients and CMs, the default fund contributions are a significant requirement for CMs and they are also subject to procyclicality and opaque methodologies. We would recommend that features of the simulation tools also consider default fund calculation estimation.

#### Intraday and End of Day

End of Day margin requirements are typically only provided as part of the end of day process with limited visibility, especially as CCPs move to portfolio VaR margin models. We recommend CCPs add an additional feature providing an indicative End of Day margin based on intraday margin information (including intraday IM and VM). This will greatly improve CMs and their clients' intraday liquidity management and further mitigate procyclicality. Such indicative End of Day margin should also consider any changes to the CCPs parameters.

#### Output Format

The results of the simulations should be explanatory and provided for each portfolio or account at position level across scenarios and broken down between Initial Margin and additional margins.

#### Backtesting Features

CCPs should also consider including backtesting features for CMs and clients' portfolios in their margin simulation tool.

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6. Proposal 5 recommends a set of changes to the PQDs, further detailed in Table 5 of the report.
- a. With reference to Table 5, would the proposed additional data breakdowns and increased frequency of reporting facilitate market participants' understanding of the margin system?
  - b. Would there be any challenges in providing the additional data breakdowns or higher reporting frequencies? If so, are there alternatives that would be equally effective? For instance, are there alternative modes of more frequent public disclosures that would achieve a similar goal but result in reduced burdens on CCPs?
  - c. Are there any additional amendments to the PQDs, beyond those set out in Table 5, that would help market participants and stakeholders understand or anticipate changes in margin requirements? What would this information be, and how could this information be effectively incorporated into the PQD framework? For instance, would there be value in including additional non-quantitative information in the PQDs related to margin changes?
  - d. Are there any examples of current public disclosures by one or more CCPs which could be used as a guide for improved transparency?
- 

We strongly support the set of changes as detailed in table 5 of the report. The data as proposed would be extremely valuable for market participants in understanding the change in aggregate margin requirements at the CCP level. In addition, the product backtest information would be extremely useful for market participants in assessing the appropriateness of the margin model and its performance in a more frequent and meaningful way. We do not believe that such information should be challenging for CCPs to report as they should have this readily available.

However, we have reservations as to the adequacy of some of these additional metrics to be incorporated into the existing PQDs, especially given the different frequencies of reporting. Perhaps, this information would be more suitable for disclosure on a dedicated CCP webpage which would display the data historically.

We also recommend the below additional metrics from CCP to be disclosed on a quarterly basis in their PQDs:

- Aggregated Margin requirements (split between Base, Concentration, Add-on etc): Average, Max, Min and end of quarter numbers
- Aggregated Margin requirements split by member types (Direct, FCM, Direct Retail): Average, Max, Min and end of quarter numbers
- Aggregated Margins collected by collateral type: Average, Max, Min and end of quarter numbers
- Margin breaches by product and product class: Number of daily breaches for the quarter, Size of breaches (Max and Avg)
- Default Funds: Transparency (how is it calculated, how is it distributed, SITG), Product class and stress scenarios details driving the default fund size
- Aggregated size and duration of manual margin overrides, as compared with unadjusted IM requirements (split between Base, Concentration, Add-on etc): Average, Max, Min and end of quarter numbers (as per proposal 8)



## Margin responsiveness metric and analytical framework

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7. Please review the analytical annex detailing the proposed design of a margin responsiveness metric, as described in Proposal 6.
    - a. Is the proposed method for measuring margin responsiveness (ie a large call metric), alongside the associated change in volatility, an informative way of measuring responsiveness? If not, what alternative approach or methodology should be used, and why would that alternate approach better aid market participants in their liquidity planning?
    - b. For each parameter input for the responsiveness and volatility risk metrics, please select your preferred choice from the list below or provide an alternative option. Please provide an explanation and any supporting evidence for your choice.
      - i. Large call window: five or 20 days.
      - ii. Observation period: one quarter or one year.
      - iii. Product vs portfolio reporting: Product, static portfolio or dynamic portfolio. If supporting product-level reporting, please provide information on which products should be reported by the CCPs. If supporting static and/or dynamic portfolio reporting, please provide information on how the portfolios should be determined and an explanation for how that one portfolio would be representative of clearing activity at the CCP.
      - iv. Volatility risk metric: Standard deviation or VaR (99%).
      - v. Volatility risk metric lookback period: 90 days or two years.
    - c. Are there other parameters where calibration decisions are necessary for consistent disclosure of either margin responsiveness or market volatility?
    - d. Do you foresee any challenges in the development and use of the proposed metric? For instance, are there challenges in applying a harmonised choice of parameter inputs across all CCPs and all products?

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  8. Proposal 7 recommends that CCPs identify and define an analytical framework for assessing margin responsiveness within the broader context of margin coverage and cost.
    - a. Are there other important balancing factors which should be taken into consideration when evaluating the performance of initial margin models?
    - b. What elements of the “trade-off” framework would most help regulators to better understand how a CCP balances between important risk management factors? In what ways would this framework be useful in identifying cases where a review of the model by the CCP and/or the authority would be beneficial?
- 

We support the implementation of a consistent and common approach in measuring margin responsiveness as proposed under the report. Such a metric should be disclosed publicly, consistently and regularly across all CCPs globally.

### Associated price information

In exploring the proposal further, we believe it is useful to add another metric to provide a more appropriate context when assessing the procyclicality of margin models. Core Initial Margin is a function

of risk, time and price. The current proposal tries to contextualize margin change as a function of risk and time only, and we believe that the addition of a price dimension would be extremely helpful.

Core Initial Margin is expressed in currency value, typically a contract IM value. This value is generally determined based on risk, time and the price of the contract or portfolio. And while the proposal aims to provide associated risk measures to the change in IM over pre-specified time windows, we recommend including associated price measures.

As an example, a contract might have experienced a margin increase of 3 times over n-day while volatility only increased 1.5 times over the same period. This doesn't really provide the whole picture and might raise unnecessary concerns. However, if the price of that contract increased by 2 times over the same period, then the 3 times margin increase makes much more sense when considering the risk and price increase.

In addition, it would be valuable for CCPs to express their IM not only in currency value of the contracts, but also as a percentage of the price move covered. A CCP disclosing a contract IM is \$200 is not necessarily very helpful in the context of margin responsiveness. However, a CCP disclosing the contract IM is \$200 and covering 5% of market move already provides much more valuable context and a useful baseline.

All these metrics would make it easier for market participants to understand the current level of risk covered by the CCP on a contract or portfolio (IM expressed in currency value and percentage of market move), and the large changes in IM associated to the change in risk (VaR or Standard Deviation) and the change in price over specified time windows.

Therefore, we recommend that the variation of IM should be accompanied by a variation of a risk metric (such as standard deviation or VaR) and by a variation of price to help better understand how each main component to the margin model impacts the IM output.

#### Time windows

Time is another essential element to margin responsiveness. We believe that disclosing how much IM changed over, at least, a short and long-time window to be extremely useful. Therefore at a minimum, we would recommend a short time window of 1-day as IM is called daily. For longer windows, we suggest 1-week and 1-month though, ideally, longer time windows would also be welcome such as 3-month and 1-year.

#### CCP risk tolerance statement and qualitative disclosures

We strongly recommend CCPs to disclose their risk tolerance regarding appropriate maximum increase over the pre-specified time windows. We would also recommend CCPs to disclose additional qualitative information, especially if the realized IM change exceeds the stated risk tolerance. Such information could be added to the PQDs.

#### Consistency of metrics across CCPs

We want to emphasize that the margin responsiveness metric should be applied consistently across all CCPs globally in order to facilitate assessment by regulators, international standard bodies and market participants. At a high level, we recommend that the basic parameters and metrics are identical such as



the time windows and the formulas and the metrics use remain easily understood by regulators and market participants. Additionally, such metrics should apply to, at least, the main contracts such as the ones subject to backtest.

We understand that CCPs might want to have separate metrics to monitor the effectiveness of their model in relation to procyclicality, and we support CCPs having such metric for internal purposes. However they should ensure that the standard metrics are also computed, reviewed and disclosed appropriately.

## CM Transparency

9. Proposal 9 recommends a number of enhancements to CM-to-client transparency.
  - a. Are there aspects of the proposal that would be particularly valuable for clients, and are there aspects of the proposal that would be particularly challenging for CMs to meet?
  - b. Do CMs currently provide any form of simulation tool, in addition to the tools provided by CCPs? For those who currently do not, what is the feasibility of CMs developing such tools? What functionality would be of most use to clients in CM-designed simulators?
  - c. On the proposed quantitative disclosure described in 9e), do you have supportive or alternate views on the information that should be provided and the format in which the information should be disclosed?
  - d. Do you agree that CMs should adopt an analytical framework for measuring the responsiveness of initial margin requirements for their clients, similar in nature to the proposed framework for CCPs described in Proposal 7? If so, in what ways might that framework need to differ from that used by CCPs, and in what ways might this depend on the type of CM covered?
  - e. Do you foresee any barriers or challenges to CMs implementing the proposed disclosures, such as cost, negative effects on risk management, or any potential overlap with traditionally proprietary information?

We strongly support enhanced transparency throughout the clearing ecosystem and we believe that the additional transparency disclosures requirements for CCPs under this proposal, as well as our recommendation to extend disclosures of margin methodology documentation to CMs and their clients under proposal 3, will greatly enhance the transparency for the entire clearing community. Therefore, the need for additional disclosures from CMs to their clients should be effectively reduced.

Regarding proposal 9.c potentially requiring CMs to have simulation tools of their own for their clients, we believe this requirement would be extremely challenging, if not impossible, given the nature of CMs' operation and business. Indeed, CCPs, when developing their simulation tools, are not constrained by external outputs (such as CCP IM) that have limited details and disclosures. In addition, CCPs manage a single flow relationship which is from the CCP to the CMs and their clients.

By contrast, CMs have to deal with several flow relationships, one to their CCPs and one to their clients. Moreover, the typical number of clients a CCP would manage is only a fraction of the number of clients a CM would manage. And each client would be risk managed based on various criteria such as their creditworthiness, their investment strategies, their liquidity profile or their leverage amongst others. Finally, the main input in CMs own risk assessment is the CCP margin requirements which they have no control over.

CMs should not be limited by any simulation tool output, or any analytical framework, when determining whether and how to apply additional margin to a client for risk management purposes. As noted in the consultative report, such discretion should not be limited given the dynamic and idiosyncratic nature of stress events that can occur in the market. This should be made clear in the final report. While we share the goal of transparency enhancements, we foresee extreme challenges in implementing a simulation tool, such as significant cost considerations, potential negative impacts on

risk management, increased barrier of entry for newcomers and the delicate balance between transparency and risk sensitive information.

Furthermore we believe it is important to further explore end-users' requirements. Indeed, CMs have a very broad client base (Pension Funds, Insurers, Hedge Funds, Commodity and Energy firms) of different sizes and operational capabilities. Each client might have a wide-ranging set of requirements depending on its size or its operations. One of the main concerns raised was to implement a solution which would only be used by a handful of clients and therefore would be a waste of the scarce CMs resources. Especially as we believe that clients might not desire a solution unique to a CM but rather a solution that applies to all CMs. Therefore, no single CM can develop such solution. To address this, we recommend exploring further the requirements for clients.

In light of this, we strongly recommend amending proposal 9.c removing CM's simulation tolls provision such that the proposal would read as follows: *"This understanding should be facilitated through the provision of ~~CMs' own simulators, where appropriate, or~~ private disclosures of the margin requirements clients may be subject to under different scenarios."*

In considering further proposal 9, regarding 9.a, we acknowledge the importance of ensuring clients' comprehension of CCP margin requirements. However, it is worth noting the challenge for CMs in guaranteeing full client understanding of CCP margin requirements, especially if CCPs themselves do not provide the relevant details or constrain the information available to CMs with non-disclosure agreement. We also support the notion of facilitating client access to CCP-provided margin simulators. Therefore, as mentioned earlier in this response under question 1 (Proposal 9: CMs transparency to their clients), we recommend that both the CCP margin simulation tool and the appropriate CCP margin documentations should be made available to CMs and their clients directly or at least via a secure portal.

For 9.b, we would welcome further clarification on the term "analytical framework", ensuring it does not unduly restrict CMs' risk management capabilities.

Regarding 9.d, it is important to recognize that CMs already adhere to legal notice protocols within bilateral arrangements with their clients. While CMs commit to providing appropriate notice, the ability to offer extensive lead time may be constrained by the necessity to swiftly adapt to dynamic market conditions and manage clients risk exposure effectively.

Lastly, we express reservations on 9.e about the utility of backward-looking information on differences between client and CCP margin requirements. Such information is idiosyncratic to the client's portfolio at these points in time and therefore such data might mislead clients, which is contrary to the transparency and understanding objectives.

Therefore, we strongly recommend reassessing proposal 9 considering these comments.

10. Please review the list of examples CM-to-CCP disclosures provided at the end of Section 4.3.2.
- a. Would the information included in the proposed disclosures aid the CCP's own risk management processes? If not, is there alternative information which would be useful for CCPs to receive from members?
  - b. Is any of the information included in the proposal description either redundant or duplicative of information already available to the CCP, and thus of minimal value? Does any of the information included in the proposed disclosures differ by institution type?
  - c. Would collection of the information impinge upon current legal disclosure frameworks?
  - d. Do any of the example disclosures potentially overlap with traditionally proprietary information?

We understand this proposal is intended to enable CCPs to gather additional information from their CMs but, given CCPs are able to request any information as per their rulebook, we see limited benefit from this proposal. CMs already provide extensive information to CCPs as part of CCPs' due diligence processes. However we note that the information that the CCPs typically request through this process is not consistent with the information listed under proposal 10, suggesting that the information under this proposal is not necessary for CCP risk management purposes.

Evaluating the added value of such data and explaining its importance in relation to the CCP's role overseeing its CMs is crucial. Most importantly, it is essential to understand and assess clearly what CCPs would be able to do with such data, what risk CCPs are trying to mitigate and if the benefits of this proposal would outweigh the implementation cost for CMs.

The Consultation Paper outlines liquidity preparedness as the main objective but the information requested is generally stale and most likely would be out of date in the event of market or liquidity stress, prompting questions as to its usability. We believe it is more appropriate that such information should be disclosed to regulators given its financial stability implications and regulators' view of the entire clearing ecosystem.

Additionally, we would like to note that most of the information requested is available publicly such as the CMs memberships to CCPs and that other element of the information requested is provided by the CCP to the CMs such as the Power of Assessment. The latter type of information is often not being disclosed accurately or regularly by the CCP to their CMs, potentially making it challenging to CMs to aggregate this information due to some CCPs lacking effective disclosure process. For the former type of information, if CCPs used a standard disclosure form, CCPs themselves or a 3<sup>rd</sup> party could relatively easily collect this type of data. This would mitigate the significantly wide-ranging scope of this data request as it would impact a large number of CMs.

Finally, proposal 10 does not specify whether such disclosures would be public or private and it is important to highlight the anti-competitive and commercially sensitive nature of the information requested such as the % of Initial Margin or Default Fund from for the top 1-3 CCPs.

We recommend that proposal 10 should be removed and that CCPs should provide better use cases as to the value of disclosing such information.

## **ANNEX A: Policy proposal**

### **CCP Transparency**

1. Margin simulation tools, commonly used by market participants to estimate margin requirements, should be made available by all CCPs to all clearing members (CMs) and their clients.
2. Margin simulation tools should include, at a minimum, functionality allowing the following:
  - a. The calculation of margin requirements under varying historical and hypothetical market conditions for current and hypothetical portfolios.
  - b. The incorporation of add-on charges in addition to baseline (or “core”) initial margin. CCPs should ensure that margin simulation tools reflect all material components of the underlying quantitative methodologies.
3. Where legally permissible, CCPs should make margin model documentation available to CMs at a level that can enable them to understand key aspects of the CCP’s margin model and its approach to risk management. This documentation should include the following:
  - a. Explanations of the calibration of key model parameters, including any relevant components which affect the size and speed of margin requirement changes during periods of elevated stress.
  - b. The logic, applicable thresholds and data used for the calculation of margin add-ons.
4. CCPs should publicly disclose and describe the anti-procyclicality (APC) tools used in their models. CCPs should also publicly disclose and describe, at a high level, the model components that affect the level of model responsiveness.
5. CCPs should provide additional breakdowns of margin-related data through the Public Quantitative Disclosures (PQDs) and report such data more frequently and with shorter reporting lags. All PQD data should be reported consistently and accurately.
6. CCPs should disclose a new standardised measure of margin responsiveness, as designed by CPMI-IOSCO, alongside the associated changes in market conditions. This disclosure can be made through the PQDs.
7. CCPs should identify and define an analytical and governance framework, appropriate to their business lines and risk profile, for assessing responsiveness within the broader context of margin coverage and cost, with the framework and parameter choices communicated to relevant authorities. The framework can be used by CCPs and relevant authorities to regularly monitor the performance of initial margin models and trigger the review of initial margin model parameters in case of need.
8. Where CCPs make use of discretion (e.g. expert judgement) to override model margin requirements, CCPs should:
  - a. Have in place clear governance procedures defining the triggers for the use of such discretion and undertake ex post reviews where such discretion has been applied. CCPs should clearly articulate and define the instances and areas where such overrides may be warranted (including clear definitions of the key decision-makers who can perform overrides and the extent to which these adjustments are deemed permissible without, for example, requiring a material model change). It can similarly be important that the CCP establishes clear guidelines as well as processes which enable the CCP to identify and monitor the overridden risk variable or model output.
  - b. Publicly disclose relevant information regarding the scenarios where discretion may be applied and the governance procedures used in the application of such discretion. CCPs

should proactively share the governance procedures for the application of model overrides in full with relevant authorities.

- c. Publicly disclose, through additions to the PQDs, the aggregate size and duration of manual margin overrides, as compared with unadjusted IM requirements. The disclosure could be supported by a qualitative explanation of the reasons for the override.

### **CM Transparency**

9. CMs should ensure their clients have sufficient understanding of their margin requirements, including the following:
  - a. CMs should ensure their clients have sufficient understanding of CCP margin requirements. CMs should facilitate clients in accessing CCP-provided margin simulators.
  - b. CMs should identify and define an analytical and governance framework, appropriate to their business lines and risk profile, for assessing margin responsiveness, alongside other key factors such as counterparty credit risk, when adjusting client margin requirements.
  - c. CMs should provide sufficient transparency to their clients regarding the mechanism by which client add-ons are calculated. This should include documentation containing a detailed description of the calibration of any client add-ons (e.g. through the application of margin multipliers, buffers or internal margin models) and how the triggers or thresholds for their use are set. This understanding should be facilitated through the provision of CMs' own simulators, where appropriate, or private disclosures of the margin requirements clients may be subject to under different scenarios.
  - d. CMs should, without the need for a client request, inform the client with appropriate notice when they are adjusting their calibration of client margin add-ons, and should provide sufficient transparency to their clients when margin requirements have been adjusted relative to those set by the CCP.
  - e. CMs should disclose to their clients backward-looking information on the maximum, minimum and average differences between client margin requirements set by the CM and the margin requirements of the CCP over a defined period of time.
10. CMs should disclose additional metrics to the CCPs of which they are members on a quarterly basis with a [one/two]-month lag.



## **Annex B: List of key aspects of margin methodology to be disclosed**

### **Core margin model**

1. Description of the model used (SPAN and/or VaR such as PvaR, HVaR, FHVaR and/or Monte Carlo) and their parameters. Explain the modeling scheme which sometimes is outdated and not supported by peer experts. For instance, how are parameters estimated, e.g., estimating volatilities with mean absolute deviation.
2. Rationale and framework for MPOR selection. In the case of multiple MPORs due to liquidity differences among the instruments, indicate the volume/ratio of instruments (number of traded contracts) associated to each MPOR value. Also, the selection of a specific MPOR value could be supported by theoretical insights. Explain why an MPOR has been selected, how its adequacy has been determined and explain approach for instances where MPOR may be different.
3. Lookback window(s) Explain the choice of one or multiple lookback periods and the choice of adding (or not adding) a stress period.
4. Confidence level. Explain the choice and the level of risk appetite.
5. Explain the distributional assumptions used in the estimation of the risk factors simulation.
6. Summary of model validation reports. Using reverse testing, challenge against hypothetical scenarios and worse historical moves. Revision by an external entity to be conducted on a frequent basis.
7. Historical IM levels for benchmark products. Disclose minimum correlation levels between an individual asset and a benchmark product for the IM of the benchmark to reliably approximate that of the individual asset.
8. IM sensitivity metrics to extreme volatility for benchmark products. Provide where high correlation exists so that sensitivity metrics can be extrapolated from the benchmark product/index to the individual asset.
9. Calibration update frequency and describe process of any overrides.
10. Describe floors (or caps) applied (if any).
11. Provide calibration of the volatility forecast:
  - 11.1. EWMA: Decay factor, the seed period and scaling factor.
  - 11.2. Monte-Carlo: volatility time series principles e.g. for a Garch-process there are typically three parameters ( $w$  – constant long-term volatility;  $\alpha$  – persistence parameter and  $\beta$  – reactivity linked to random terms)
12. Provide the list of risk factors considered by product type

### **Additional Margin**

1. Concentration add-on. Indicate the market information (such as average daily volume and open interest) used to establish critical limits for the add-on to take place. State if concentration is tracked at end-client level, CM level and/or at CCP level. Magnitude of the add-on and its increase with the position size are to be transparent. Explain if a position limit cap applies and the rationale.
2. Liquidity add-ons. Describe how the bid-ask spread is tracked and/or stressed to contemplate exceptional events and how the add-on applies.
3. Stress related add-on(s) / Default Fund Add-on. Provide the Account Stress Loss exposure amount (possibly compared to the DF size) to which the add-on applies. In addition, provide what other add-ons qualify against the stress losses resulting in the stress related add-on.

4. Credit related add-on. Explain and detail if the Ratings on participants derive from external ratings from peer agencies such as S&P, Moody's or Fitch (or an equivalent one) or if instead the Credit worthiness is deduced from an internal process of the CCP. If internal, provide details of the process.
5. Wrong Way Risk add-on. Indicate the WWR components integrated in the methodology (e.g., General and Specific WWR) and how it applies.
6. Decorrelation add-on. Indicate if the CCP tracks changes on level of correlation among instruments by means of an add-on or another strategy?
7. Delivery add-on. If present, explain how it evolves when the expiry/ delivery of the contract is approaching.

## **ANNEX C: List of APC information to be disclosed**

1. Description of the APC models and their parameters. For instance, does this include floor only, or is the buffer included in the core IM, or is it a scaled IM.
2. For each APC measures employed:
  - 2.1. linked to the usage of a buffer. Documentation explaining how the buffer is consumed, sized and replenished according to market volatility.
  - 2.2. linked to the incorporation of a stress period. Explanation on the stress period selected, its associated weighting and how it will add adequate cushion to the core margin.
  - 2.3. linked to an extended lookback period. Detail the stress periods within the lookback and/or any extra market period, if added, and the reason to consider a certain period as a stressed period and/or such lookback period.
3. CCP procyclicality risk appetite and tolerance.
4. Provide regular data on how IM would react to extreme volatility (e.g., 10 - 30% increase in volatility) for benchmark products.
5. Impact of APC measures on current IM levels (where is IM driven by APC measures).