



Secretariat of the Basel Committee on Banking Supervision

Bank for International Settlements

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Dear Secretariat,

LCH.Clearnet Group ("LCH.Clearnet") welcomes the opportunity to respond to the BCBS Consultative Documents BCBS 254 and BCBS 253. Our response contains a number of high level comments on the two consultations followed by responses to specific questions contained in the BCBS 253.

LCH.Clearnet is the world's leading clearing house group, serving major international exchanges and platforms, as well as a range of OTC markets. It clears a broad range of asset classes including: cash equities, exchange traded derivatives, commodities, energy, freight, interest rate swaps, credit default swaps and bonds and repos.

First, we would like to stress that the non-internal model method (NIMM) for computing exposures is a significant improvement to CEM with respect to risk sensitivity and simplicity. Notwithstanding this improvement, our preliminary analysis suggests that the NIMM approach could be further refined in order to better capture specific risk exposures. We will conduct further analysis in the coming weeks, which we will share with the BCBS in due course.

Given the potential shortcomings attached to the use of a generalised NIMM for calculating exposures, we are concerned that the BCBS 253 proposal could result in the inaccurate measurement of hypothetical capital of a CCP. We note that regulator-approved internal models are already in use for the purposes of calculating CCP margins and default fund contributions, which are core to the risk management function of a CCP. We would therefore recommend that QCCPs be permitted to develop regulator-approved internal models for calculating QCCP hypothetical capital as an alternative to NIMM.

Second, we believe that the proposed 1250% risk weight on clearing member contributions to CCP default funds is inappropriate and fails to reflect the inherent nature of a CCP's risk infrastructure and default waterfall. We believe an appropriate risk weight should reflect the significantly low likelihood of utilising non-defaulting clearing members' default fund contributions to cover a defaulter's losses.

Finally, as a result of the above, we remain concerned that the BCBS 253 proposal presents significant disincentives for central clearing. Our preliminary analysis conducted on a typical Interest Rate Swap portfolio suggests that the capital charge on the cleared portfolio could be higher than the cost of maintaining non-cleared positions under a bilateral margining model (as proposed in BCBS 261 – Margin requirements for non-centrally cleared derivatives). Our analysis shows that the netting benefit gained through central clearing is likely to be outweighed by the substantial level of regulatory capital required by

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clearing members under BCBS 253. Consequently, we believe that the BCBS 253 proposal is inconsistent with the Committee's stated objectives and the G20 mandate to promote central clearing.

Detailed comments and recommendations further to the above can be found in Appendix 1, which contains our specific responses to the consultation document. Our key recommendations are as follows:

- i. Allow QCCPs to use regulator-approved internal models to calculate the QCCPs hypothetical capital;
- ii. Improve the NIMM model by using more risk-sensitive measures to better reflect the nature of underlying financial instruments where a regulator-approved internal model is not available; and
- iii. Lower the risk weight applied to RLDF to reflect the nature of a CCP's risk infrastructure and default waterfall. We would propose that the risk weight on RLDF be a maximum of 25% which is slightly higher than the risk weight applicable to AA- rated securities¹.

We also wish to express our intention to actively perform more detailed analysis of the proposals relating to members' capital requirements for the exposures to CCPs using data from within our clearing services and our desire to share these results with the regulators in the future.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Michael Davie".

Michael Davie
CEO, LCH.Clearnet Ltd

¹ Under the Ratio approach, the term 1250% appearing in paragraph 27 would be reduced to a risk weight of at most 25%. Under the Tranches approach, the factors c_1 and c_2 appearing in paragraph 37 would be multiplied by a factor of at most 25%/1250%.

Appendix 1 - Responses to consultation questions in BCBS 253

Q1: Which of these two proposed methodological approaches best satisfies the objectives which the capital treatment seeks to achieve and why?

Both the Ratio and the Tranches approach encourage similar incentives in the context of encouraging CCPs to increase their capital at risk within the default waterfall in order to reduce their members' regulatory capital requirements. However, the two approaches cannot be critically compared before the other portions of the proposal have been finalised.

From a simplistic perspective, the Ratio approach has one advantage of differentiating between the reduction in member's capital due to a contribution to the default waterfall from the CCP which is junior to members' contributions. The Tranches approach does not make such differentiation. From an aesthetic perspective, the Ratio approach uses a continuous function formula (which would be preferable), whereas the Tranches approach applies piecewise functions.

Noting the above points, we would have a minor preference for the Ratio approach.

Q2: What are the pros and cons of using the greater of the minimum Cover level required by the CPSS-IOSCO PFMI or the hypothetical level of default resources calculated using NIMM as a model for calculating the relative risk of clearing members contribution to QCCP default funds? Should the Committee consider any adjustments to NIMM to improve its measurement of derivative exposures in the context of CCPs? Would it be better to use only one of these measures, or are there other suitable alternatives?*

One of the advantages of using the greater of the minimum Cover* level required by the CPSS-IOSCO PFMI or the hypothetical level of default resources calculated using NIMM ($K_{CCP}(NIMM)$) is that members' exposures would be calculated consistently with CCPs view of tail exposures in cases that $K_{CCP}(NIMM)$ does not sufficiently capture this risk. However, this exposure should be subjected to an appropriate risk weight reflecting the probability of such extreme losses falling on mutualised default fund resources.

We support the improvement in risk sensitivity and simplicity via the introduction of the non-internal model method (NIMM) as the approach proposed for computing exposures. We expect that the use of NIMM will generate exposure measures which are more representative of our clearing members' portfolio risk compared to those calculated using the Current Exposure Method (CEM). However, one of the disadvantages of the proposed methodology is the inaccurate representation of risk exposure with respect to certain financial instruments. As financial instruments can differ significantly in the nature of their functional dependence to various risk factors, a simplified exposure methodology such as CEM or NIMM cannot capture risk as accurately as internal risk models, such as VaR-based or non-linear parametric risk models.

Ideally, the CCP would prefer to develop an internal model to measure hypothetical capital as CCPs already use regulator-approved internal models for the purposes of calculating member margins and default

fund requirements. Internal models are built in a manner by which correlations (either explicitly defined or implicitly contained within scenarios) dynamically reflect changing market conditions. However, simplified models such as CEM or NIMM contain static correlation assumptions which may not necessarily reflect accurate risk offsets.

CCPs already use regulator-approved internal models for the purposes of calculating initial margin and default fund contributions (expected loss and stressed loss protections) which underwrite the core function of the CCP. These models are often approved by several regulators and are deemed to be effective in protecting systematically important financial institutions such as CCPs.

We would recommend that the regulators permit QCCPs to design and implement internal models for the purpose of calculating hypothetical capital which would be subject regulatory approval similarly to internal models being used by banks.

Specifically with regards to the proposed NIMM model, we believe that the use of NIMM may not accurately reflect risk exposure for certain financial instruments. A number of such examples are given below:

- i) Non-linear products such as Options, Swaptions, etc. where NIMM assumes 0.5 Delta for all options;
- ii) Financial instruments in which the residual maturity does not accurately reflect the risk "duration", i.e. Floating-rate bonds and Basis swaps as well as forward-starting instruments.

With respect to the NIMM model, our recommendation would be for the model to apply more risk-sensitive measures such as interest rate delta (or duration) and actual option delta in place of maturity and a fixed option delta of 0.5 respectively.

Preliminary analysis conducted by LCH.Clearnet has suggested that in a large number of cases, $K_{CCP}(NIMM)$, the NIMM-based hypothetical capital is lower than DF^{Cover^*} , the Cover*-based member default fund contribution, and hence, members' capital requirements are being driven by DF^{Cover^*} . This is not surprising as we believe that the NIMM-based approach has been calibrated to members internal models (which are based on recent market history and may not incorporate stressed periods and may also not appropriately measure tail risk), whereas the Cover* methodology is based on extreme stress scenarios which are rare but plausible.

LCH.Clearnet plans to undertake further more detailed analysis of the proposed hypothetical CCP capital and the NIMM methodologies in order to assess their effectiveness within the context of calculating members' capital for exposures to CCPs. However, this analysis is complex and to complete it robustly and efficiently is likely to take time beyond the period open for consultation for this proposal. We kindly ask the regulator to consider the results of this analysis exercise in the future.

Q3: What risk weights / capital charges would best achieve, or appropriately balance, the objectives set out in Section II.C? In particular, how would possibly lower values ensure that clearing members are capable of absorbing losses in times of stress without the drawing down of the default funds

threatening the viability of the non-defaulting members who have contributed to them? How would the proposed 1250% risk weight affect incentives to use central counterparty clearing?

Applying a Risk Weight of 1250% implies that there is an expectation that all banks will lose their entire Default Fund contribution with 100% likelihood, in every CCP of which they are a member.

A CCP is likely to have in place a default waterfall by which it would prioritise the use of financial resources used to cover losses caused by a defaulting member. Within the default waterfall, non-defaulting members' default fund contributions are a senior layer of default resources used for covering defaulter's losses (being senior to the defaulters' margins, defaulters' default fund contributions and the CCP's junior capital at risk).

Under EMIR, for the purposes of calibrating initial margin levels which are contained in the most junior layer of default resources available to cover defaulters' losses, CCPs are mandated to apply a confidence level of 99.5% for their OTC markets². Under normal market conditions, initial margin models are expected to have demanded sufficient margin to cover possible portfolio losses in at least 99.5% of cases. Hence we would expect that the likelihood of a member's portfolio loss exceeding their initial margin would only be 0.5% at most.

Furthermore, members' credit quality is regularly monitored and when found to be deteriorating, CCPs would apply policy measures as part of their risk infrastructure as means to further strengthen the default waterfall, thereby reducing the likelihood of losses falling on mutualised non-defaulting members' default fund contributions.

Given the default waterfall structure and risk infrastructure maintained by CCPs, we expect that the likelihood of utilising non-defaulters' default fund contributions to be extremely remote. Furthermore, the extent to which mutualised default fund contributions would be consumed by a defaulter's losses is unlikely to result in a zero recovery rate of such contributions. Historically, it can be observed that the occurrence of a CCP using mutualised resources is extremely low, even in the event of a large-scale member default or credit event. The default waterfall structure and risk infrastructure equalises all members to a similar level of credit-worthiness by providing a form of credit enhancement above and beyond their look-through ratings.

LCH.Clearnet has undertaken a modelling exercise analysing a typical member's capital requirement based on the methodology proposed in BCBS 253. This initial analysis suggests that the aggregate cost of cleared transactions is likely to be higher than that of equivalent non-cleared bilateral transactions, driven largely by the substantial capital charge on default fund contributions.

As an additional point, in the context of client clearing, the regulatory capital that clearing brokers would be required to hold on behalf of their client exposures is further compounded. According to the methodology that has been recommended under EMIR, CCPs must assume that all client portfolios are included when sizing the default fund, regardless of the possibility that client portfolios may be ported to another clearing member upon the occurrence of a default. The sizing of default funds under this approach, in combination with the BCBS 253 proposals, results in client clearing becoming increasingly costly thus disincentivising client clearing of OTC derivatives.

² Note that all Initial Margin models within LCH.Clearnet are calibrated to a confidence level of at least 99.7%

In conclusion, we are very concerned that the proposed capital charge on member default fund contributions is inappropriately high and that the BCBS 253 proposal presents significant disincentives for central clearing. We would propose that, conservatively, the risk weight on RLDF be a maximum of 25% which is slightly higher than a standard risk weight applicable to AA- rated securities.

Q4: The Committee invites comments on this potential risk sensitive approach to capitalising trade exposures to CCPs.

A member's risk exposure to loss of their uncollateralised variation margin or trade exposure would require the member default to first consume a number of financial resources within the default waterfall which includes the entire prefunded default fund amount as well as assessments (i.e. committed contributions). The likelihood of such an occurrence would therefore be significantly less probable than the probability of loss of the prefunded default fund.

Therefore, we would recommend that the maximum risk weight that would apply to a bank's trade exposures to a QCCP should remain at the current level of 2% and that this risk weight may be reduced below 2% in cases where the default fund resources are greater than the hypothetical level of capital resources.

Q5: Do you consider it appropriate to treat initial margin, where a QCCP has legally enforceable rules that make initial margin a senior claim to variation margin in the event of losses in excess of default resources, differently from other trade exposures by retaining a fixed 2% risk weight on initial margin posted in a non-insolvency remote manner?

In cases whereby initial margin is not posted in a way that is bankruptcy remote, the provider of margin would become a general creditor to the estate of the CCP in the case of a CCP default. However, in such a case, the residual liabilities to which members' initial margin would be exposed to would be those in excess of exposure covered by the default waterfall which includes prefunded and unfunded default resources as well as additional loss recovery mechanisms available to the CCP. Hence the risk exposure that initial margin is exposed to is significantly lower than that of trade exposure in a non-cleared context and would therefore deserve a significantly lower risk weight.

Q6: Do the proposed approaches to capture commitments to top up default funds in the capital treatment of exposures to QCCPs satisfy the objectives which the capital treatment seeks to achieve? Are there ways in which the proposed capital treatment of commitments could be improved? Is the proposed α value of 0.5 appropriate?

We agree that there should be an incentive, in terms of capital treatment, to favour prefunded default fund contributions over commitments, thereby justifying an α factor value of less than 1.0. However, a value of

0.5 seems to underweight the benefit provided by default fund commitments. We would recommend an α factor value of 0.9 which maintains the appropriate incentives while satisfying the objectives of paragraph 63 of the consultation document.