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Basel Committee on Banking Supervision
Email: baselcommittee@bis.org

Dear Sirs,

Basel Committee on Banking Supervision Consultative Document
Capitalisation of bank exposures to central counterparties

The National Research University Higher School of Economics (HSE) is one of the leading Russian economic research and educational establishments actively carrying out the empirical research and policy response analysis.

Banking sector is one of HSE research primarily focus. It was the International Laboratory of Decision Choice and Analysis within the University to first publish the book on the 'Analysis of Basel II Mathematical Models' (Moscow, Fizmatlit, 2010). The continued research in the banking area includes the analysis of banking regulation policy options, approaches to banking risks management, banking sector performance analysis, efficient banking branches allocation etc.

The National Research University Higher School of Economics (HSE) is pleased to provide response on the Consultation Document 'Capitalisation of bank exposures to central counterparties' [further on - *BCBS206*] published by the Basel Committee on Banking Supervision on November 02, 2011 at http://www.bis.org/publ/bcbs206.htm.

The comments are presented in three parts:
(a) 'Principal Comments' refer to the overall issues of regulatory capital reservation to central counterparties exposures;
(b) 'By-Paragraph Comments' deal with the particular regulation details, i.e. point references to the consultative document are provided.
(c) 'Technical Comments' correspond to the document formation that might misguide the user.

We hope our comments would be of use for deriving financial stability-oriented identification and regulation principles with respect to preserving adequate capital requirements for central counterparties' exposures.

In case of further questions, please, do not hesitate to get in touch through email (dhm-econ@hse.ru), telephone (+7.495.621.13.42, ext. 2006) or fax (+7.495.772.95.90, ext. 2101).

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Principal Comments

1. The proposed measures on CCP regulation is an important step towards more transparent and more stable financial system. However, as was mentioned in the document, CCPs are not risk-free and thus banks' exposures towards CCPs should be appropriately capitalized. The use of CCPs does not solve the problem of high risks of the derivative transactions. The risks are solely transferred to the CCPs. Unprecedented concentration of such deals within several CCPs on the contrary increase **systemic risk** as their problems would be immediately transferred to the whole financial system.
   1.1. Thereby CCPs concentrate a lot of systemic risk and become systemically important financial institutions. That is why we propose to extend the framework or work out separate document on Global Systemically Important CCPs regulation. It seems reasonable to take into account the size of CCPs and assign higher capital charges for banks' exposures towards bigger CCPs. Thus, it would discourage the creation of new "too-big-too-fail" financial institutions.

2. Besides CCPs become sources of **operational**[1] **risks** that to our mind need to be additionally accounted for.
   2.1. When calculating hypothetical capital requirement in bullet (i) on p. 15 of BCBS206, we propose to use operational risk add-on (OR).
   2.2. The OR component is proposed to be calculated by CCP. As banks are allowed to choose in between three approaches (IMM, SM, CEM) 2 when calculating the exposures on derivative contracts, CCPs should also be offered options to choose the relevant approach to OR calculation (e.g. BIA, SM, AMA as in Basel II). Qualifying CCPs might be allowed to use the advanced approaches as AMA, while non-qualifying CCPs might opt for only BIA or SM.
   2.3. The OR amount is to be verified by an appropriate regulatory authority (e.g. a Central Bank) and the operational risk exposure of CCPs is to be publicly disclosed for current and prospective clearing members to enable them to compare the riskiness of their operations within this or that CCP.

3. Current CCP regulation framework is equivalent to standardized approach of Basel II when risk weights for RWA calculation were fixed. For banks applying IRB approaches being approved by national regulators it would be consistent to be able to have an IRB treatment of CCP exposures (for greater detail, please, cf. points 1, 6, 7 below).

4. Given the financial markets uncertainties, tighter timelines for regulatory measures implementation are welcome to preserve the financial soundness of the markets and its participants (for more detail, please, cf. points 2, 3, 4 below).

[1] "Despite the benefits that CCPs can bring to OTC derivatives markets, CCPs can concentrate counterparty and operational risks" (cf. §11, p. 2).
[2] "To calculate this exposure amount, banks can use the same model that they would use under the bilateral framework (ie Internal Model Method – IMM; Standardised Method – SM; or Current Exposure Method – CEM)" (cf. §19, p. 4).

By-Paragraph Comments

1. **§19, p. 4 - "The capital charge reflects the risk of default of the QCCP, which is assumed to be very low. As such, this exposure receives a very low risk-weight of 2%."**

   Using fixed weight is equivalent to Standardized Approach of Basel II. To be consistent it is proposed to use statistically-based weights for CCPs to differentiate non-equal default risks of CCPs.

2. **§ 32, p. 6 "If a qualifying CCP (QCCP) loses its status, a grace period of three months will apply before bilateral capitalisation rules apply. "**

   The rationale for the choice of three months period is welcomed. Given the volatility of markets the period is proposed to be shorter.

3. **§ 32, p. 7 "…a default NGR value of 30% will be permitted until March 2013. After this transitional period, failure to properly calculate NGR will cause a CCP to be non-qualifying"**

   Similar to grace period of three months when QCCP looses its status, rationale for the period is welcome and the milestone date is expected to be shorter.

4. **§ 33, p. 8 "These rules should be implemented by January 2013"**

   Given the objective stated[3] in 2009 to make relevant regulatory proposals, timeline for implementation is expected to be shorter.

5. **§ 108, p. 11 "A bank must monitor and report to senior management and the appropriate committee of the Board on a regular basis all of its exposures to CCPs, including exposures arising from trading through a CCP and exposures arising from CCP membership obligations such as default fund contributions"**

   Given the complexities arising from risk treatment within CCPs, we argue that proper public disclosure as part of International Financial Reporting Standards (IFRS) Notes on Financial Risk Management is needed. The template for the information disclosure is attached below (table summarizes the exposure amounts, margin values, and fund contributions made by type of CCPs).

Qualifying (QCCPs)			
Exposures to QCCPs			
Trade exposures			Default fund Contributions
EBRM	VM	IM	
…	…	…	…

[3] "…The G20 Leaders, at their Pittsburgh summit in September 2009, agreed to a number of measures to improve the over-the-counter (OTC) derivatives markets, including creating incentives for banks to increase their use of central counterparties (CCPs)" (§ 1, p. 1).

Non-qualifying (QCCPs)			
Exposures to QCCPs			
Trade exposures			Default fund Contributions
EBRM	VM	IM	
…	…	…	…

6. **§116, point (i), p. 15 – "First, calculate the CCP's hypothetical capital requirement due to its CCR exposures to all of its clearing members. This is calculated using the formula for KCCP:**

$$K_{CCP} = \sum_{\substack{clearing \\ member \\ i}} \max\left(EBRM_i - VM_i - IM_i - DF_i; 0\right) \cdot RW \cdot Capital\ ratio$$

"

To differentiate clearing members by rating (following the logic of IRB approach of Basel II), it is proposed to use clearing member-specific weights, i.e. as follows:

$$K_{CCP} = \sum_{\substack{clearing \\ member \\ i}} \left(RW_i \cdot \max\left(EBRM_i - VM_i - IM_i - DF_i; 0\right)\right) \cdot Capital\ ratio$$

where RW_i is calculated in a way respective to probability of default in Basel II credit risk framework in dependence of approach accepted (Standardized; IRB).

7. **§116, p.14-15 - "Where a default fund is shared between products or types of business with settlement risk only (eg equities and bonds) and products or types of business which are OTC derivatives, exchange traded derivatives or SFTs giving rise to CCR, all of the default fund contributions will receive the risk weight determined according to the formulae and methodology set forth below, without apportioning to different classes or types of business or products."**

It would make more sense to carry out the appropriate proportioning so that to be able to assign higher capital requirements to fund contributions that correspond to the riskier products.

The risk-sensitive capital principle used in Basel III is proposed to be employed in order to account for:

- Industry risk (e.g. banks, insurance companies, hedge funds etc.);
- Jurisdiction risk (should be applied to cross-jurisdictional transactions);
- Price manipulation and insider trading risk (statistically estimated add-ons are to be used; the add-ons might be derived from pattern-analysis of trade profiles of clearing members and their clients trading activities);

8. **§116, point (ii) p. 16 – "Second, calculate the aggregate capital requirement for all clearing members (prior to the concentration and granularity adjustment), assuming a scenario where two average clearing members default and, therefore, their default fund contributions are not available to mutualise losses".**

The role of the assumed scenario (the default of two average clearing members) is not clear: their default fund contributions are deducted from the overall prefunded default fund contributions thus decreasing the capital requirements (in the risk-sensitive formula under point (iii)). However, under assumed scenario we would expect that the capital requirements are increased.

It is also not clear why the default of two *average* clearing members is considered. To be internally consistent we propose to use two clearing members with *largest* A_{Net} values as it is done on p. 18 when calculating CCP concentration factor.

9. **§116, point (ii) p. 16 – "Second, calculate the aggregate capital requirement for all clearing members… This scenario is incorporated in the following risk-sensitive formula:**

$$K'_{CM} = \begin{cases} c_2\mu\left(K_{CCP} - DF'\right) + c_2 DF'_{CM} & if \quad DF' < K_{CCP} \quad (i) \\ c_2\left(K_{CCP} - DF_{CCP}\right) + c_1\left(DF' - K_{CCP}\right) & if \quad DF_{CCP} < K_{CCP} \le DF' \quad (ii) \\ c_1 DF'_{CM} & if \quad K_{CCP} \le DF_{CCP} \quad (iii) \end{cases}$$ "

If clearing members have contributed to the fund, the amount of unfunded capital is expected to be decreased the by contributed amount. Now it is as follows:

Let's take the case of $DF' < K_{CCP}$ where $K'_{CM} = c_2\mu\left(K_{CCP} - DF'\right) + c_2 DF'_{CM}$ (1)

Given $DF' = DF_{CCP} + DF'_{CM}$ equation (1) is equivalent to

$$K'_{CM} = c_2\mu\left(K_{CCP} - DF_{CCP} - DF'_{CM}\right) + c_2 DF'_{CM} = \\ = c_2\mu\left(K_{CCP} - DF_{CCP}\right) + c_2\left(1-\mu\right)DF'_{CM} \qquad (2)$$

As $\mu = 1.2$ we obtain $c_2\left(1-\mu\right)DF'_{CM} = -20\%DF'_{CM} < 0$

It means that Default fund contributions from clearing members cover the respective exposure only in the amount of 20%, not in all 100%.

That is why for the case $DF' < K_{CCP}$ it is proposed to use the following rule (3) to entirely account for the prefunded contribution:

$$K'_{CM} = c_2\mu\left(K_{CCP} - DF_{CCP}\right) - c_2 DF'_{CM} \qquad (3)$$

Moreover, if the parameter c_2 equals to 100%, it does not influence the result of the proposed risk-sensitive formula. This parameter could be just eliminated.

The parameter c_1 enters the risk-sensitive formula under point (ii) and (iii). However, we would expect that c_1 under point (iii) would be lower as in this situation the CCP's prefunded own funds are higher then the hypothetical capital of CCP and, so, the risk of CCP is lower. As a result, capital requirement could be lower as well.

10. **§116, point (ii) p. 17 – "c_1 - A decreasing capital factor, between 0.16% and 1.6%, applied to the excess prefunded default funds provided by clearing members (DF_{CM})"**

QIS disclosure is welcomed to assess the way the parameters for **c_1** were calibrated for the purpose of local Central Banks to be able to run there own QIS to evaluate country-specific parameters.

11. **§116, point (iii) p.18 "Finally, calculate the capital requirement for an individual clearing member 'i' (K_{CMi}) by distributing K^*_{CM} to individual clearing members in**

proportion to the individual clearing member's share of the total prefunded default fund contribution".

Firstly, *it is better to divide the total capital in proportion of the total fund contributions*. Otherwise the division could discourage the prefunding from the clearing members.

The rationale for the proposal is as follows. If all banks make their prefunded contributions in proportion to their default funds requirements, then there is no difference if we allocate capital based on shares of prefunded contributions or on shares of total fund contributions; 2. If prefunded contributions are done taking into account the riskiness of the transactions, then it makes more sense to allocate capital based on the shares of prefunded contributions. However, it could discourage banks to make prefunded contributions (if, of course, banks can choose whether to make them or not). Some banks could be encouraged to make more prefunded contributions - and, thus, decrease an amount under risk – in case they have less CCP capital requirements when prefunded contributions are made.

12. § 116, p. 18 – "CCP concentration (through the factor 'β')"

$$\beta = \frac{A_{Net,1} + A_{Net,2}}{\sum_i A_{Net,i}}$$

In terms of statistics the proposed formulae is CR2 (concentration ratio for top-2 agents). This indicator has disadvantages. Firstly, it can overestimate the level of concentration (and subsequently apply higher capital requirements for individual clearing members). Secondly, the CR2 index doesn't take into account the partition of all the clearing members shares to CCPs exposure.
That is why we propose to use the accepted Herfindahl-Hirschman Index (HHI).

The formulae would be as follows: $\beta = \sum_i (\frac{A_{Net,i}}{\sum_i A_{Net,i}})^2$.

13. §117, p.19 - "K_{CCP} and K_{CMi} must be recalculated at least quarterly,"

Similar to the amount of grace period and transitional treatment period, we propose to change "at least quarterly" to "at least monthly" as CCPs operate in a rapidly changing environment.

Technical Comments

1. **§19, p. 4 – the bullet number 19 is double-used in the document** (cf. below)

19. The trade exposures consist of mark-to-market current exposure and potential future exposure of the OTC derivative or the Securities Financing Transaction…

19. The capital charge reflects the risk of default of the QCCP, which is assumed to be very low. As such, this exposure receives a very low risk-weight of 2%.

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