

2 February, 2012

Secretariat
Committee on Payment and Settlement Systems
Bank for International Settlements
Sent by email to: cpss@bis.org

Secretariat
Technical Committee
International Organization of Securities Commissions
Sent by email to: fmi@iosco.org

The Systemic Risk of Intraday Margin Calls for Cleared Over-the-Counter Derivatives

Dear Secretariats

We wish to alert you to a matter which is, in our view, sufficiently important to reducing risk and fostering financial stability to raise at this late stage¹. In this letter, we outline our concern and propose potential solutions that we are exploring to address this matter, while acknowledging that, as ever, there is no panacea for risk and that each of our proposed solutions contains its own difficulties and risks. Nevertheless, the industry feels strongly that CPSS-IOSCO ought to address this issue in its Principles for Financial Market Infrastructures (“PFMI”). In particular, CPSS-IOSCO PFMI 3.4.8² and aspects of PFMI 6³ require careful amendment.

As you know, the G20 seeks to impose mandatory central clearing for standard Over-the-Counter (“OTC”) derivatives. The widely-used margin system for central clearing contains three components: initial margin (“IM”), variation margin (“VM”) and intraday margin (“IDM”). In relation to VM and IDM, Clearing Members (“CMs”) pre-fund their clients’

¹ We refer to the work of the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions (collectively, “CPSS-IOSCO”) on Principles for financial market infrastructures, specifically the CPSS-IOSCO consultative report titled ‘Principles for financial market infrastructures’ of March 2011 and work following the consultation. As you know, ISDA’s consultation response of 22 July 2011 focused on the proposals’ application to OTC derivatives markets, and in particular their suitability as risk management standards for OTC derivatives central counterparties (“CCPs”).

² CPSS-IOSCO consultative report ‘Principles for financial market infrastructures’ page 34, PFMI 3.4.8: “In addition, a CCP should have the authority and operational capacity to make *ad hoc* intraday variation margin calls from participants with positions that have lost significant value during the trading day.” [emphasis added]

³ CPSS-IOSCO consultative report ‘Principles for financial market infrastructures’ page 40, PFMI 6 Key consideration 4 “...A CCP should have the authority and operational capacity to make intraday calls for initial and variation margin from participants with positions that have lost significant value.”

obligations. In relation to IDM, in general CCPs do not provide physical payment for accounts with net mark-to-market gains⁴. This produces a liquidity drain at the CM, which is significantly exacerbated by the fact that, unlike listed derivatives, clearable OTC derivatives are fungible products that can be cleared at more than one CCP and the new and envisioned national regulatory frameworks allow clients of CMs to choose where to clear. This can be expected to lead to certain preferences, for example:

- Customer preferences may lead one client segment to clear their large receive fixed positions on interest rate swaps (“IRS”) at one CCP, while a second customer segment may prefer to clear their large pay fixed at a second CCP.
- For credit default swaps (“CDS”), the different CCPs offer significantly different margin methodologies for buyers and receivers of protection. With respect to the size of margin requirements in isolation, sellers of protection would be likely to prefer one CCP and buyers another.

This fragmentation of the clearing market is likely to result in unbalanced netting sets in CMs’ house and client accounts. In this context, the use of IDM calls for OTC derivatives cleared at multiple CCPs creates systemic risk as CMs must make payment of net mark-to-market losses on directional exposures to CCPs without the benefit of payment from CCPs for accounts with net mark-to-market gains. In the absence of refined standards for IDM practice, CMs are exposed to a serious liquidity risk as they risk-intermediate CCPs in distressed market conditions.

One preliminary estimate suggests that such IDM calls may require USD\$20B in overnight funding from each CM or USD\$300B - \$500B in aggregate⁵. This preliminary estimate gives a sense of the magnitude of the issue. As noted, CMs cannot effectively control this risk, since it originates from fragmentation of the clearing market and client choice of clearing venue.

To commence discussion of how to address this systemic risk, we are examining the following, which are provided in no particular order, as potential solutions. All would mitigate the risk, to varying degrees.

- CPSS-IOSCO could explicitly recommend the abolition of CCP IDM calls for cleared OTC derivatives. If it could be demonstrated that CCPs required more margin than they would obtain if IDM calls were abolished, then a practical solution would be to increase the holding period in the IM calculation (to cover 6 days of market risk) instead of retaining IDM calls.
- CPSS-IOSCO could recommend CCP interoperability for CCPs clearing the same OTC derivative product (“iCCPs”). This could address the problem if we suppose that iCCPs have a synchronised margining system with each other, including in relation to IDM calls, and that this synchronised margining system would enable the netting of offsetting CM trade exposures to each iCCP. In such circumstances, should an IDM call be necessary, a single net payment from CMs would be sufficient risk mitigation

⁴ At this point, we understand the Chicago Mercantile Exchange does pay out (80% of) gains to members on an IDM.

⁵ The argument for this estimate is presented in Annex 1. Note, significantly more capital would be required if client CCP accounts were fully segregated.

for the iCCPs. (Note, the single payment could be made from the iCCPs to the CM where that CM has accounts with net mark-to-market gains.)

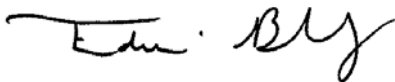
We acknowledge that formidable hurdles must be overcome before any interoperability can be implemented safely between CCPs in respect of OTC derivatives clearing due to, among other things, the potential for systemic risk caused by the CCP, which is the weakest link in the chain. However, if interoperability were achieved, it would remove dealers from intermediating CCPs and the associated systemic risk. As a result, interoperability ought to remain on the agenda.

- CPSS-IOSCO could recommend that:
 - CCP IDM calls be “two-way”, meaning that at each CCP, IDM calls would pay accounts with net mark-to-market gains at the same time as calling on accounts with net mark-to-market losses; and
 - CCPs clearing the same OTC derivative product would collaborate with each other in relation to IDM calls to offset directional exposures. Each CCP would monitor and assess the ability of CMs to meet any potential IDM calls, share this analysis with the other CCPs and the relevant prudential regulator(s), and determine to make any IDM call in a coordinated and orderly fashion. While this proposal (in conjunction with the proposal in the sub-bullet immediately above) would not eliminate intraday funding risks, it would (largely) remove the overnight funding drain from CMs. On the other hand, we recognise this proposal contains the potential for significant operational risk and coordination problems.
 - CCP’s adopt a more advanced CCP collaborative structure that could entail a single pool margining scheme managed by a custodian. A suitable custodian might be agreed for this, which might be one of the CCPs themselves, a custodian bank or perhaps the monetary authority responsible for each currency for cash margin.

We would welcome an opportunity to discuss our concern and proposed solutions with you to obtain your views prior to the promulgation of the PFMI. Please contact the undersigned to arrange a discussion or should you require further information.

We look forward to hearing from you.

Yours sincerely,



Edwin Budding
Risk and Financial Regulation
International Swaps and Derivatives Association, Inc.

Annex 1

Preliminary industry estimate

The estimate below is derived from a comparison of two scenarios, which are based on realistic assumptions. The aim is to provide a sense of the quantitative impact of IDM calls on CMs for clearable OTC derivatives.

Assumption 1: In a worst-case circumstance, IDM calls are around half⁶ of IM requirements. In general, CCPs do not provide actual physical payment for accounts with net mark-to-market gains.

Assumption 2: CM IM requirements for each class of OTC derivatives to be USD\$2B⁷.

Scenario 1: There is just one CCP for each cleared OTC derivative product class⁸.

Based on the above, we can expect on days of stress a USD\$1B call for the IRS book for a CM's house account. We can expect a similar figure for the CDS book.

For the CM's client clearing business, if the client account is an omnibus account (for example as per listed derivatives) then the client account is called for its *net* mark-to-market loss. In this case, we can expect a call for the client account in a size similar to that made for the house account for the IRS book, i.e. another USD\$1B. Again, we can expect a similar figure for the CDS book.

The fact that dealers pre-fund these IDM calls on the client account(s), leads to an overnight funding drain from the CM⁹. If clients have fully segregated accounts, then the CCP would call each individual client account with mark-to-market losses. An effect of the inability to net offsetting clients' transactions would be for the dealer to receive an IDM call that is a *multiple* of the IDM call if the client positions were in an omnibus account.

⁶ For IRS, the ratio of worst case 1-day to 5-day moves—the latter being the basis for IM calculations—ranges from 50% to 80% depending on swap tenor.

⁷ The \$2B is typical of a large CM.

⁸ For the purposes of this illustration, by "class" we refer, broadly, to a suite of OTC derivative types: IRS being one class, CDS being another.

⁹ Further, unlike the listed derivatives market, we do not expect cleared OTC derivatives clients to maintain significant excess funds in their client account(s) that might reduce the impact of any such a funding drain. This is because:

- CCPs collect gross rather than net IM from CMs in respect of OTC derivatives cleared for customers, which represents a change from the listed derivatives framework and there is no long option value margining.
- OTC derivatives clients are typically hedgers and pull out their profits from their client accounts to pay losses on the assets/liabilities they are hedging.
- Many OTC derivatives clients are also fund managers and withdraw excess funds to be prudent, either to invest or to return funds to the end investor.

Given the above, the potential overnight drain in Scenario 1 comes to USD\$4B. Again, this figure may be much larger, perhaps double, if CCPs call margin for each client with mark-to-market losses (i.e., a gross client call), rather than a net call from a client omnibus account.

Scenario 2: There are multiple CCPs for each cleared OTC derivative product class.

Scenario 2 reflects the conditions under the G20 proposals and PFMI¹⁰ and recognises the competitive incentives for dealers to become members of as many CCPs as possible while there is client demand for choice.

Accordingly, with client choice of CCP, each CCP-cleared portion of the dealer OTC derivative book will be ‘split’ at different CCPs and very directional. The severe funding requirements and costs consequences of this are:

- A dealer’s directional IRS book may result in IM requirements on the House Account increasing five (to ten) fold, at each CCP, i.e., USD\$10B at each CCP. If we employ Assumption 1 above, this would lead to a potential USD\$5B IDM call for the House Account from one of the CCPs. This liability would only be matched the next morning with a payment from the other CCP.
- We estimate a similar figure for cleared OTC CDS, arriving at a total USD\$10B one way call for the House Account (where the dealer is trading IRS and CDS under Assumption 2 above).
- At the same time, CCPs will call approximately the same amount for Client Account at each CCP assuming an omnibus client account is used.

Given the above, the potential overnight drain in Scenario 2 may be in excess of USD\$20B. Again, this figure may be much larger, perhaps double, if CCPs call margin for each client with mark-to-market losses (i.e., a gross client call), rather than a net call from a client omnibus account.

Finally, if one major dealer is 5% of the total of cleared OTC derivative risk, then the total overnight funding risk across the industry may amount to 20 times USD\$20B, namely USD\$400B. On just the day when dealers are stressed and the market moves to reflect this, IDM funding calls will remove USD\$300B – USD\$500B of liquidity from dealers.

This is a dramatic contrast to Scenario 1 where there is only one CCP per product class and very much less IDM would be called (assuming that the dealer managed a market risk balanced House Account, the dealer’s clients were relatively balanced in aggregate and the CCP called for a net intraday call across an omnibus client account).

Further funding requirement, cost consequences and risks

In addition to the severe funding requirements described above in relation to Scenario 2, due to the directional exposures to multiple CCPs, default contributions and other member obligations (for example, unfunded assessment guarantees) could correspondingly increase

¹⁰ As the PFMI were set out in the March 2011 consultative report

five-fold at each CCP¹¹. Further, CCP capital charges and balance sheet usage will correspondingly increase, to a level that may well disfavour clearing. In addition, dealer exposure to each CCP may increase beyond internal counterparty risk tolerances.

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¹¹ Consequently, it is important that regulators and CCPs are able to discover and manage capital “call risk” as noted in our July 2011 response to the CPSS-IOSCO consultative report. To recap, “call risk” is the risk arising from the possibility that an entity is a CM at multiple CCPs. There is a risk of inadequacy in a CM’s capital cover for all of the CCPs at which it is a member in light of the potential impact of multiple assessments from different CCPs on the same CM or affiliate group in a short time-frame. Small CMs are more leveraged entities in the sense that the sum of their potential CCP assessment liabilities will be a larger number relative to their capital base. As was also noted in our July 2011 response, it is not only clearing that causes capital risk for CMs. This is particularly so for non-bank CMs not subject to Basel rules which require regulatory capital buffers. Left unmanaged, call risk poses a serious threat to CCP risk management.