25 November 2011

Secretariat of the Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002 Basel, Switzerland
Sent by email to: baselcommittee@bis.org

**Re: Basel Committee on Banking Supervision ("BCBS") Consultative Document:
Capitalisation of bank exposures to central counterparties ("CCPs")**

Dear Secretariat:

This letter contains the response of the British Bankers' Association ("BBA"), the Futures
and Options Association ("FOA"), the Global Financial Markets Association ("GFMA"), the
Institute of International Finance ("IIF"), and the International Swaps and Derivatives
Association, Inc ("ISDA") (together, the "Associations") [1] to the BCBS' consultative
document: *Capitalisation of bank exposures to CCPs* ("BCBS 206").

The Associations commend the BCBS for undertaking another consultation on these
proposals. It is apparent that this new CCP capital regime is a complex regulation. It is also
true that this regulation is proposed for a market undergoing radical structural change
following the G20's September 2009 commitment and related regulatory initiatives such as
the Dodd Frank Act and envisaged EU regulation. We remain concerned that the current
proposals discourage the propagation of central clearing, in contrast to the policy objective
stated by the G20, fail to provide incentives for CCPs to invest in the improvement of their
risk systems and methodologies, and disincentivise default fund contributions and thereby
create an increase in systemic risk.

Accordingly, at the outset, we wish to emphasise that irrespective of how these proposals go
forward we strongly urge the BCBS to instigate a parallel reporting process during a pre-
defined observation period, so that the calculations, including the hypothetical capital
calculated under the Current Exposure Method ("CEM") can be observed and subject to
further analysis. An observation period would also provide the industry, including CCPs, the
time to implement the necessary changes to produce capital figures in compliance with
regulatory reporting deadlines. It would also provide the regulators the opportunity to review
the CCPs' models, and to make improvements where necessary. In that regard, we urge the
BCBS to monitor closely how CCPs behave during the parallel observation period, including
in event of a Clearing Member ("CM") default such as MF Global, and to incorporate any
lessons learned into the capital rules during the parallel observation period. Finally, an
appropriate observation phase will better ensure the new CCP capital regime produces an
appropriate incentive structure and an appropriate calibration of the new rules.

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[1] A description of the Associations is set out in Appendix 2.

The BCBS will recognise a number of the comments in this response as some are a reiteration of concerns that we have already raised in our previous letters. Of particular concern is the proposed treatment of the default fund contribution and client clearing. We propose for default fund contributions that the proposed CCP hypothetical capital calculation should be revised. Compulsory use of the CEM will suggest for a large well-hedged collection of certain product portfolios (such as large CCPs clearing interest rate swaps) that the CCP's hypothetical capital is an order of magnitude higher than a risk sensitive calculation would be. The consequence of this overstatement is that default fund contributions will be (erroneously) given a potentially very large risk weight such that the capital that a bank gets charged for its default fund contribution can exceed that contribution itself.

In relation to client clearing, the proposals serve as a disincentive for CMs, which are subject to the BCBS rules, to provide clearing services and will likely increase the cost of those services for clients at the time when the Dodd Frank Act and envisaged EU regulation mandate clearing of clearable derivatives. Alternatively or in addition, the impact of the proposals may drive clearing business to the non-banking sector or incentivise clients to use non-vanilla structures which are not clearable and thus less costly, or opt not to risk manage through derivatives and thus increase risk in the non-financial economy.

In addition, we wish to emphasise that the global nature of the OTC derivatives market demands coordination among different financial regulators to effectively establish international minimum risk management standards and capital requirements, avoid regulatory arbitrage, and mitigate systemic risk and adverse spillover across countries. Greater coordination should ensure that comparable rules apply to firms offering similar services across jurisdictions. This would avoid an unlevel playing field and other unintended consequences.

As a separate though related matter, we strongly urge the BCBS and the Committee on Payment and Settlement Systems and International Organization of Securities Commissions (together, "CPSS-IOSCO") to clarify the core concepts used in the proposals, such as 'bankruptcy remoteness' and 'highly likely' portability. This is to better ensure a universally consistent application of rules, which is important in a competitive and evolving clearing environment.

Our response contains two parts. The first concerns the negative consequences of requiring the CEM in establishing CCP hypothetical capital. This will include an illustrative study that demonstrates that the proposed method is not risk sensitive and consequently should not be used to govern bank capital. The second part concerns other aspects of the revised proposals, which warrant a response.

Part A – Concerns over risk sensitivity and the CEM

As we have noted previously, the risk sensitivity of the core calculations is of paramount concern in the design of capital rules. In this regard, the Associations consider that the CEM requirement is highly inappropriate both quantitatively and methodologically as a capital methodology for banks exposures to CCPs.

Illustrative study

Set out below is an illustrative study based on realistic assumptions for the input numbers to investigate whether a CM banks' collective capital requirement for default fund contributions ("K_{CM}") is sensitive to large changes in a CCP's aggregate Initial Margin ("IM") and default funds. The investigation question is: for a realistic range of inputs, does the proposed CCP hypothetical capital method reflect the risk for bank default fund contributions to be lost?

The illustration assumes there are 25 CMs and that each CM contributes the same amount to the default fund.

When reviewing the data, a reader should keep in mind that the concern lies with the exposure side of the hypothetical capital calculation. Importantly:

(a) the size of the hypothetical capital requirement for a CCP ("K_{CCP}") is a product of using the CEM method which was not designed to measure the risk of cleared OTC derivatives portfolios. Moreover, in respect of portfolios of certain products where trade compression is less possible, for example large portfolios of interest rate swaps, the CEM works to reflect the number of transactions and thus does not produce a meaningful estimate of exposure and can be demonstrated to greatly overestimate risk[2];

(b) CCPs are required by regulation to set IM levels that ensure a "robust" safety standard meaning a confidence level of at least 99%[3]. On top of regulatory requirements, many CCPs use a confidence level that is greater than the 99% minimum for whatever holding period is prudent for an asset class[4]. For example, SwapClear employ a 99.7% confidence level. Accordingly, to *double* IM would in reality mean a confidence level far in excess of 99.7% (and, in practice, among other things, would reduce the efficiencies of risk mutualisation in the default fund).

Chart description

The chart of 'Baseline Scenarios' represent dealer clearing as it is today (roughly) where, as measured by ISDA[5], the average IM to notional is 0.5 bp, or .005%, of notional.

The chart of 'Modified Scenarios' present client clearing alongside dealer clearing, where, again as measured by ISDA[6], the average IM to notional for client and dealer clearing is

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[2] ISDA Research Notes, *A Note on the Impossibility of Correctly Calibrating the Current Exposure Method for Large OTC Derivatives Portfolios*, June 2011available at: http://www2.isda.org/search?keyword=CEM
[3] Refer CPSS-IOSCO Principle 6 Margin, Key consideration 3: "Initial Margin should meet an established single-tailed confidence level of at least 99 percent for each product that is margined on a product basis…" page 40 *CPSS-IOSCO Principles for financial market infrastructures Consultative report*, March 2011.
[4] Regulation and commercial practice is that CCPs perform regular back-testing of their IM calculation.
[5] ISDA study was a part of ISDA letter to CFTC Re: RIN No. 3038-AD99 - Advanced Notice of Proposed Rulemaking —Protection of Cleared Swaps Customers Before and After Commodity Broker Bankruptcies (75 Fed. Reg. 75162), January 18 2011, refer Appendix 3.
[6] ISDA study was a part of ISDA letter to CFTC Re: RIN No. 3038-AD99 - Advanced Notice of Proposed Rulemaking —Protection of Cleared Swaps Customers Before and After Commodity Broker Bankruptcies (75 Fed. Reg. 75162), January 18 2011, refer Appendix 3.

20bp. That client clearing increases total notional cleared from 200T[7] to 265T was based again on an ISDA study[8]. A detailed calculation is attached in Appendix 1.

Charts – key

CEM EBRM = Exposure value to CMs before risk mitigation under CEM
AvgIM = average IM to notional is .005%, of notional for dealer clearing (ISDA study); the average IM to Notional for client and dealer clearing is 20 bp (ISDA study)
IM = CCP aggregate IM
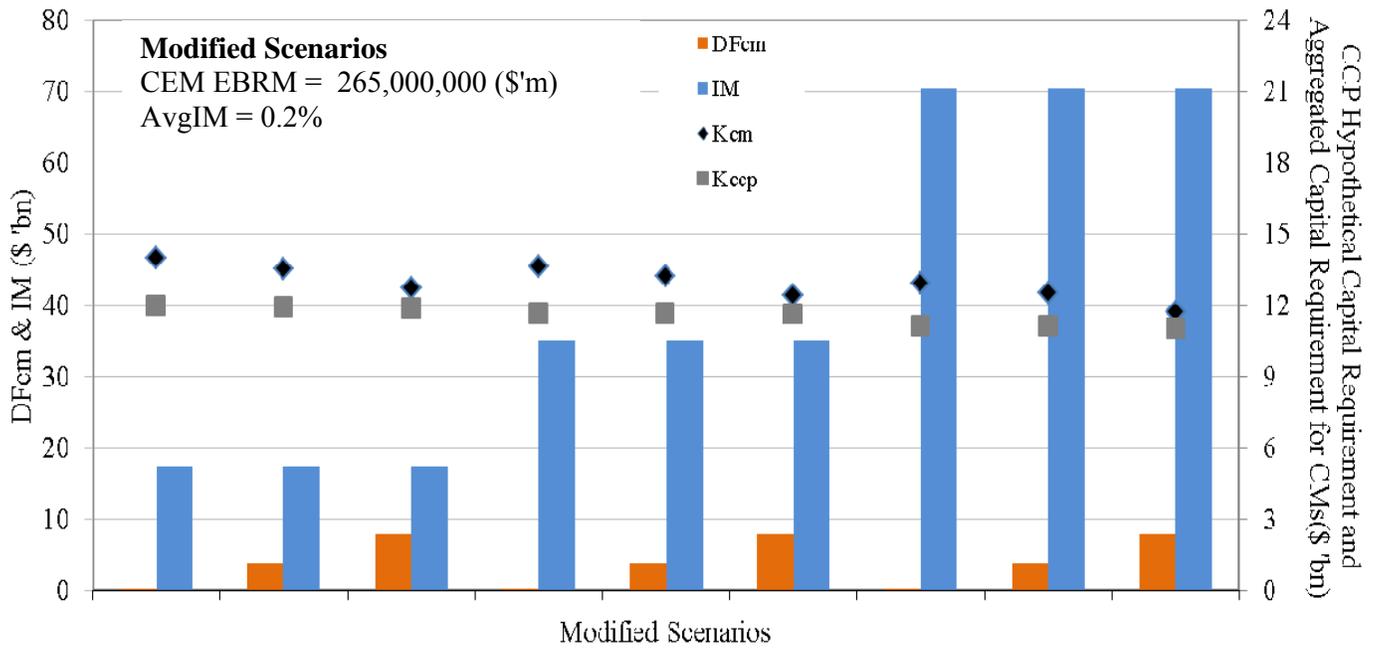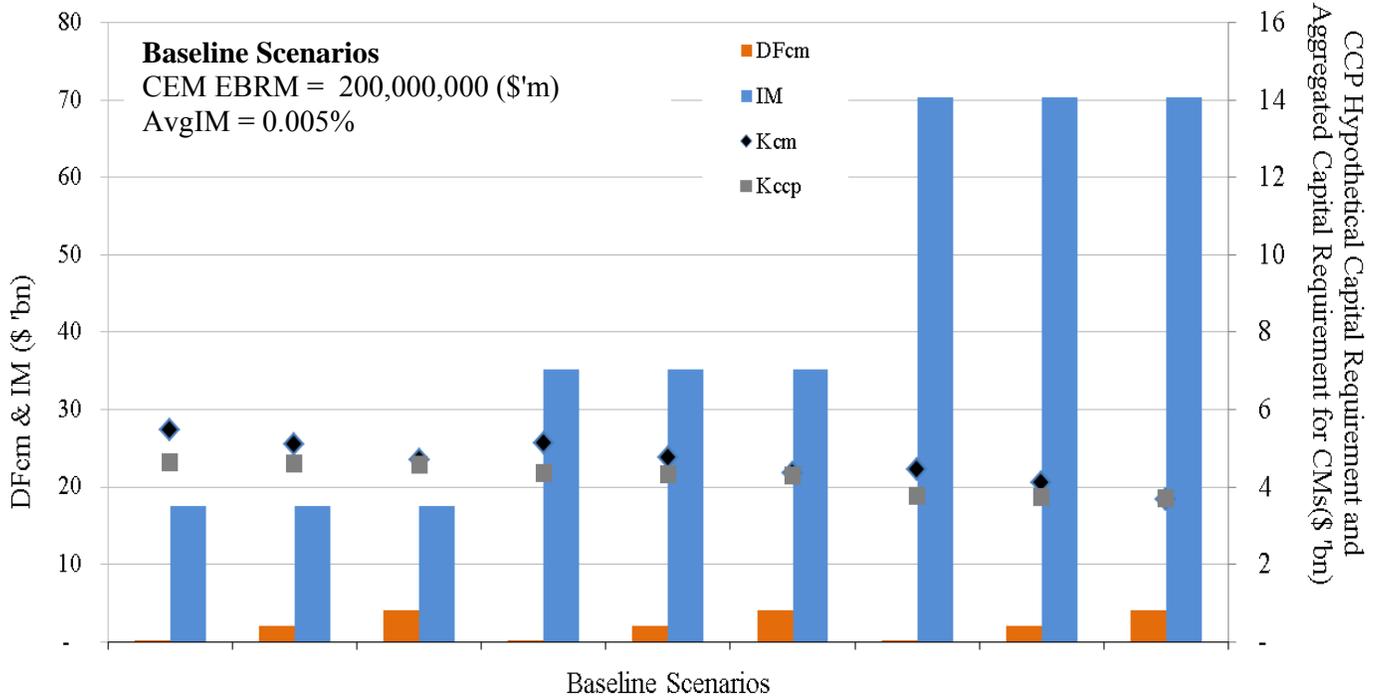DF_{CM} = CCP's prefunded default funds provided by CMs
K_{CCP} = CCP hypothetical capital requirement
K_{CM} = Aggregate capital requirement on default fund contributions from all CMs

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[7] Current Swapclear statistics, refer www.lchclearnet.com/swap/volumes
[8] ISDA study was a part of ISDA letter to CFTC Re: RIN No. 3038-AD99 - Advanced Notice of Proposed Rulemaking —Protection of Cleared Swaps Customers Before and After Commodity Broker Bankruptcies (75 Fed. Reg. 75162), January 18 2011, refer Appendix 3.

Baseline Scenarios
CEM EBRM = 200,000,000 ($'m)
AvgIM = 0.005%

Legend: DFcm, IM, Kcm, Kccp

Modified Scenarios
CEM EBRM = 265,000,000 ($'m)
AvgIM = 0.2%

Legend: DFcm, IM, Kcm, Kccp

These charts show that K_{CM} and K_{CCP} will not materially move compared to the base scenario on the left, even if default fund or IM are doubled or quadrupled (for the same risk profile).

Illustrative study – discussion

First, the study demonstrates that, for a realistic range of inputs, the proposed CCP hypothetical capital method grossly overstates the exposure value before risk mitigation and hence, is insensitive to the amount of financial resources a CCP has to protect itself and thus the riskiness of default fund exposures or, in other words, the potential for bank default fund contributions to be lost. Even if a CCP were to double its IM and default funds for the same amount of risk, the hypothetical capital stays about constant and the K_{CM} is insensitive to these risk management factors at the relevant CCP.

Second, for a large well-hedged collection of portfolios, which are unsuitable for compression, such as are typical of large interest rate swap CCPs such as SwapClear the CCP's hypothetical capital is an order of magnitude higher than a risk sensitive calculation would be. The consequence of this overstatement is that default fund contributions will be (erroneously) given a 1250% risk weight or higher, since the capital that a bank gets charged for its default fund can exceed the default fund itself (see Case (i) in the figure on page 5 of BCBS 206).

The risk insensitivity of the CEM requirement will also create perverse incentives. For CCPs, the method produces no incentive to increase the financial resources available to absorb a CM's default or improve the risk sensitivity of their IM and default fund methodologies. For CM, the method produces incentives to reduce default fund contributions given the punitive and potentially unwieldy capital treatment[9], and thereby creates an associated increase in systemic risk.

We recommend that the BCBS:

(a) revise the proposals so that they do not *exclude* the use of risk sensitive methodologies (such as an IMM model) for the hypothetical capital calculation. If the use of such models were available, then CCPs should be able to use these models for the hypothetical capital calculation. CCP eligibility to use such models could be based on the objective criteria that apply for banks, for example, with the same requirements for back-testing, hypothetical portfolio validation, and other key risk controls. Active CCPs already have very robust risk management and modelling capabilities beyond the minimum standards set by regulation as such risk models are fundamental to their business. In addition, "qualifying CCPs" will be required to have such capabilities (in order to meet the envisaged CPSS-IOSCO financial market infrastructures standards) so this should not pose a disproportionate burden;

(b) as noted above, instigate a parallel reporting process during a pre-defined observation period, so that the hypothetical capital calculated under CEM can be observed and compared against hypothetical capital calculated under a risk sensitive model and the actual risk in the cleared portfolio;

(c) revise the embedded close-out or market period of risk ("MPOR") weight in the CEM to take into account the fully collateralised nature of CCP exposures, and the consequential shorter MPOR, before CEM is adopted in an OTC derivatives CCP

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[9] The default of one CM may trigger an increase in regulatory capital requirements for surviving CMs' default fund contributions although they have already absorbed the loss.

context. If a CCP can demonstrate (through a tested, appropriately conservative default management program) that it can liquidate a large CM's portfolio within five days, then that period is an appropriate one for capital purposes. It is also relevant that CCP rules typically permit faster close out than bilateral documentation: grace periods do not exist, and hence the cleared trades can often be closed out more quickly in the event of counterparty non-performance than in a typical bilateral transaction. Similarly, client clearing documentation gives similar rights to the CM (as the CCP has with the CM) with respect to their client: the unilateral right to call IM at any time, including intra-day and immediate right for action on an event of default (usually triggered by a failure to pay a margin call). The legal rights and practical experience of closeout in cleared transactions therefore supports the prudence of a two to five day MPOR;

(d) with respect to the input parameters of the CEM for exchange-traded derivatives ("ETD") there are many assumptions that should be clarified, particularly what maturity to use needs to be defined: this could be the maturity or valuation date of the actual future, the maturity of the underlying or a fixed short time, assuming we can close out a position within a limited, short time period. Further clarity is needed. This affects both the hypothetical capital and the calculation of trade exposure if a firm does not have IMM for a product class (likely for ETD);

(e) engage with CCPs on these proposals including, notably, the hypothetical capital calculation and the risk weights for CEM;

(f) Should RMMG be unwilling to allow more risk sensitive measures than CEM, the NGR floor should at least reduced from 30% to zero or a notional value of 5%. Also the add-on weights should be adapted for centrally cleared transactions to the shorter close-out periods, both for the hypothetical capital and trade exposure; and

(g) revise the definition of β so that it is brought in line with using a floor of 30% in the calculation of hypothetical capital. Currently, the definition of β (page 18, BCBS 206) refers to *"Annex IV 96(iv)"*, where the CEM formula is defined and uses a netting floor of 40%.

Part B – Further comments on the proposals

1. *Default fund contributionn – maximum K_{CMi}*

In addition to revising the CCP hypothetical capital method, the issue of the maximum capital requirement for a bank's default fund contribution (K_{CMi}) should also be addressed. K_{CMi} ought to be capped at the legal liability of a CM to replenish a default fund. For the majority of CCPs, CMs have a limited legal obligation to replenish the default fund. It is highly inappropriate for a bank to be compelled to hold more capital against an exposure than the bank can lose from that exposure.

2. *Capital for client clearing*

We are strongly of the view that it is inappropriate for a CM to capitalise their exposure to a CCP in the situation where they are acting as a financial intermediary on behalf of a client,

except in the situation where such clearing member provides a guarantee of CCP performance to that client.

As noted previously, we propose for the CM-to-CCP leg that no capital requirement is required unless the CM has guaranteed the CCP's performance to the client such that any cost of CCP failure is not able to be passed back to the client. We consider that the proposals remain vague on this key point and accordingly seek confirmation of the treatment.

In addition, the definition of "financial intermediary" (page 11, paragraph 110) where a bank acts as a financial intermediary between a client and a CCP, and thus must take a capital charge on the bank's trade exposure to the CCP (presumably with respect to the client's trades) is not sufficiently clear. It is also unclear whether and how the two alternative models of (i) "financial intermediary" and (ii) a CM guaranteeing the performance of its client, map (if at all) onto principal-to-principal and agency clearing. We urge the BCBS to provide clarity on these matters.

Further clarification is also needed with regards to regulators' intentions regarding page 12, paragraph 111. This seems to imply that even where the client is principal to the transaction with the CCP, and the client clearing documentation stipulates that the clearing broker does not guarantee the performance of the CCP to the client, a regulatory capital charge will be applied for a non-existent exposure of the clearing broker to the CCP. We firmly believe that in this circumstance the clearing broker should not have to hold regulatory capital to cover the event of the CCP default.

Table 1 sets out our understanding of who takes what capital against what exposure in which situation:

Table 1

Capital for CM	Risk Weight
House trade with CCP	2% for CCP trade exposure CM must also take a capital charge for the IM posted where that is not held by a custodian and bankruptcy remote from the CCP.
Client clearing under any model without Guarantee	The CM capitalise its exposure (including potential CVA risk exposure) to clients as bilateral trades (including potential CVA risk exposure)
Client clearing under any model with Guarantee	2% CM-to-CCP leg (in respect of client trades) The CM capitalise its exposure to clients as bilateral trades (including potential CVA risk exposure)

Capital for client	Risk Weight

	2% if
	    (a) Qualifying CCP;
	
	    (b) collateral fully segregated; and
	
	    (c) 'highly likely' portability
	
	4% if
	    (a) Qualifying CCP;
	
	    (b) the client is not protected from loss in the case of joint default of both the clearing member and other clients (we assume that covers the case of collateral in omnibus segregation); and
	
	    (c) 'highly likely' portability
	
	Otherwise the bilateral risk weight of the clearing client, either using IRB or the standardised method.
	
	Client must also take a capital charge for the IM posted:
	
	- 2% if the collateral is held on fully segregated basis and 'highly likely' portability;
	
	- 4% if the client's collateral is not protected from loss in the case of joint default of both the CM and other clients (we assume that covers the case of collateral in omnibus segregation); and 'highly likely' portability
	
	- 0% where that is held by a custodian and bankruptcy remote from the CCP, the CM and other clients.

3. *Clarification re: "bilateral agreement"*

Page 10, paragraph 6(ii) of the consultative document states: "*When the client-to-clearing member leg of an exchange traded derivatives transaction is conducted under a bilateral agreement, both the client and the clearing member are to capitalise that transaction as an OTC derivative.*" However, the revised proposals do not make clear what constitutes a "bilateral agreement" between a CM and a client that would require both parties to capitalize

their exposure to one another as an OTC derivative, noting that differences may exist between the agency and principal models of client clearing.

At this point, we consider the BCBS wants CMs to hold capital against the possible non-performance of their clients, but there should be clarity about when this is required.

4. Highly likely portability

Page 13, paragraph 112(b) of BCBS 206 requires arrangements that are "highly likely" to ensure an institution's trades will be taken over by another CM in the event a bank's CM defaults or becomes insolvent. In previous iterations of the proposals such portability arrangements have had to be 'guaranteed' or 'assured'. We would appreciate further clarification from the BCBS on what 'highly likely' portability arrangements means in practice. We would also seem clarification (again) that there is no capital requirement associated with being a 'backup' CM under a portability arrangement[10].

5. IM recognition

Assuming that the regulators require firms that act as principal or intermediary to client trades to charge RWA for the client leg, it is important that the regulatory treatment of IM provides an exposure off-set that accurately reflects the level of protection. Use of the Basel III revised short cut method (Basel III paragraph 41 of Annex 4, June 11 version page 41) does not provide this outcome.

Although the purpose of IM requirements is to cover potential future credit exposure after a default event (since the defaulting member is, by definition, not in a position to pay variation margin), in the Basel III environment, regulators no longer allow firms to use IM as an off-set against the regulatory exposure add-on representing potential future credit exposure. So irrespective of the amount of IM, a firm's regulatory exposure will always be floored at the expected positive change of MtM over the margin period of risk. There is hence a clear lack of risk sensitivity. For firms that offer derivatives client clearing services – currently primarily ETD, but in the future also OTC – punitive capital requirements will apply under the short cut method which is counterintuitive given the level of protection. The intention behind this change is unclear, and makes it less attractive to offer clearing brokerage and increases costs of ETD.

6. Recognition of dynamic IM

In addition, because CCPs typically calculate IM dynamically, IM will change as trades roll-off or are modified. Accordingly, those firms that can model dynamic IM (and justify their assumptions as part of their model waiver process) should be permitted to do so in their EEPE and stressed EEPE calculations. We term an EAD profile calculated using the effect of dynamic IM "modified EAD".

7. MPOR for cleared client trades

In a cleared client trade the CM is subject to CCP rules on margin frequency and close out, and typically these are reflected in client documentation. CCP rules typically permit faster

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[10] As stated in article 396 §6 of the CRD IV proposal published on July 2011

close out than bilateral documentation: grace periods do not exist, and hence the client trade can often be closed out more quickly in the event of client non-performance than in a typical bilateral transaction.

Accordingly, the Basel III margin period of risk in both IMM models and standard rules is inappropriate for all cleared transactions for the same reasons noted in relation to the CEM weights above.

8. *Leverage Ratio and central clearing*

The Basel III leverage ratio rules provide no guidance for a firm that offers derivatives brokerage and execution on the inclusion (or otherwise) of the relevant transaction legs (client, CCP client and house account) for leverage ratio purposes. We suggest to include only one leg of the maximum three legs of a cleared transaction in the cleared exposure, as the breakdown of the trade in three legs is a technical split so that for each leg the correct exposure and risk weight can be applied.

9. *Large exposure treatment*

We assume that if trade exposures together with non-segregated margin are in scope then this can push certain firms (or local subsidiaries) to their large exposure limits. We hope this will be taken into consideration as the BCBS reviews the large exposure rules, which we understand is currently being undertaken. In this context, we note that the EU's "CRD IV" contains an explicit exemption for trade exposures to CCPs and default fund contributions to CCPs from the large exposures limit (CRD IV, Article 389 (1)(j)).

As noted previously, the Associations think that banks' concentrated exposures to CCPs (such concentration often resulting from various legal and regulatory initiatives) should be permanently exempt from the large exposure limit, so long as the applicable CCP is a "qualifying CCP" and thus complies with the current and forthcoming CPSS-IOSCO Principles. Failure to adopt such an approach in the treatment of large exposures to CCPs would undermine the incentive effect that is otherwise being pursued. Given this public policy direction, it is an important component of the incentive structure that market participants should be able to rely upon CCPs and not be constrained by their necessarily concentrated exposures to them in such a way as to constrain their use.

10. *Incomplete QIS*

The previous QIS conducted by the BCBS, focused primarily on requirements related to default fund contributions. Apart from the expected impacts due to default fund contributions which are punitive, additional material impacts due to the points above have not been assessed. Adverse consequences of the new regulation might hence be underestimated. Further, it is unclear that a QIS comparing capital requirements before and after clearing will inform these rules on the current implementation timeframe. Regulators should review the recognition of IM and the scope of the Leverage Ratio in the context of client clearing before finalising the rules.

11. Application to consolidated group

The revised proposals are not clear on whether they are intended to apply at both the bank level and the consolidated holding company level. It is thus unclear whether an affiliate clearing through a CM of a consolidated group is required to capitalise the exposure as it if were a third party.

For example, Bank "A" is not expected to clear for clients. However, the consolidated holding company ("Holdco A") has a CM (CM "A") that is not part of Bank "A". This CM clears for third party clients and for Bank "A".

For the purposes of Holdco "A" capital, it would seem logical that trades between CM A and Bank A should by ignored as intercompany and trades between a CM and a third party client are treated on a bilateral basis. However, as the consultative document does not explicitly address this, we seek confirmation.

The Associations look forward to working with the BCBS in advancing this work with a view to reducing risk and fostering financial stability. We appreciate the opportunity to provide these comments. Should you require further information, please do not hesitate to contact the undersigned.

Sincerely,
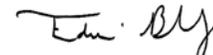
Robert Driver
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International Swaps and Derivatives Association, Inc.

Appendix 1

In this Appendix we present the details of the calculations in the illustrative study on the calculation of hypothetical capital requirements and capital requirements for banks' default fund contributions using CEM.

For each scenario, different sizes of aggregate default fund contributions and IM were employed in the calculation.

There are two sets of scenarios in the study:

    i)   the "Baseline Scenarios" which presents dealer clearing as it is today; and

    ii) the "Modified Scenarios", which presents client clearing alongside dealer clearing.

i)   Baseline Scenarios

The baseline scenarios represent the dealer clearing as it is today (approximately), where, as measured by ISDA, the average IM to notional is 0.5 bp, or .005%, of notional.

The tables below show the calculated hypothetical capital and capital requirement for CCP and CMs. Assumptions used in the baseline scenarios are that the IM is increased by 2x or 4x, and DF_{CM} is increased by a factor of 10 and 20.

Table 2.1: Hypothetical Capital for CCP (K_{CCP})

Kccp		IM		
		17,600	35,200	70,400
DFcm	200	4,627	4,346	3,782
	2,000	4,598	4,317	3,754
	4,000	4,566	4,285	3,722

Table 2.2: Aggregate capital requirement from all CMs (K_{CM})

Kcm		IM		
		17,600	35,200	70,400
DFcm	200	5,477	5,140	4,464
	2,000	5,112	4,774	4,098
	4,000	4,705	4,367	3,692

Table 2.3: Capital requirement for CM of interest (K_{CMi})

Kcm$_i$	IM

DFcm		17,600	35,200	70,400
	200	238	223	194
	2,000	222	208	178
	4,000	205	190	161

ii)   Modified Scenarios

In this set of scenarios, client clearing is alongside dealer clearing. As measured by ISDA, the average IM to notional for client and dealer clearing is 20 bp and the total notional cleared increases from 200T to 265T.

Assumptions on IM are similar to the Baseline Scenarios, while DFcm is larger and is increased by a factor of 2 and 4.

Table 3.1: Hypothetical Capital for CCP (K_{CCP})

Kccp		IM		
		17,600	35,200	70,400
DFcm	2,000	11,982	11,701	11,138
	4,000	11,950	11,669	11,106
	8,000	11,886	11,605	11,042

Table 3.2: Aggregate capital requirement from all CMs (K_{CM})

Kcm		IM		
		17,600	35,200	70,400
DFcm	2,000	13,972	13,635	12,959
	4,000	13,566	13,228	12,552
	8,000	12,753	12,415	11,740

Table 3.3: Capital requirement for CM of interest (K_{CMi})

Kcm$_i$		IM		
		17,600	35,200	70,400
DFcm	2,000	607	593	563
	4,000	590	575	546

8,000	554	540	510

One example of above calculations can be seen below, using assumed parameters:

CEM			
EBRM	200,000,000	IM	**17,600**
AvgCEM	0.50%	DFcm	**200**
AvgIM	0.005%	DF'cm	184
NGR	1%	DFccp	32
Anet	61,400,000	DF'	216
EBRM	307,000	RW	20%
Kccp	4,627	c2	100%
Kcm	5,477	mu	1.20
Kcm$_i$	238		

Key

CEM EBRM = Exposure value to CMs before risk mitigation under CEM
AvgCEM = Average CM gross potential future credit exposure
AvgIM = average IM to notional is .005%, of notional for dealer clearing (ISDA study); the average IM to Notional for client and dealer clearing is 20 bp (ISDA study)
NGR = the ratio of net current replacement cost to gross current replacement cost
Anet = CCP's net notional
IM = CCP Aggregate IM
DF = CCP Aggregate Default Fund (DF=DFccp+DFcm)
DFccp = CCP's prefunded own funds
DFcm = CCP's prefunded default funds provided by clearing members
DF' = Total prefunded default fund contributions available to mutualise losses
DF'cm = Prefunded default fund contributions from surviving clearing members available to mutualise losses
RW = CM risk weight (currently using 20%)
CM% = CM of interest clears 5% of total
c2 = Capital Factor when a CCP's own resources (DFccp) are less than such CCP's Kccp
mu = an exposure scalar of 1.2 is applied in respect of the unfunded part of a Kccp
EBRM = CCP's exposure value to CM of interest
Kccp = CCP hypothetical capital requirement
Kcm = Aggregate capital requirement on default fund contributions from all CMs
K$_{CMi}$ = Capital requirement for CM of interest
N = Number of clearing members (currently using 25 in the calculation)

Appendix 2

British Bankers' Association (BBA)

The British Bankers' Association ("BBA") is the leading association for the UK banking and financial services sector, speaking for over 230 banking members from 60 countries on the full range of the UK and international banking issues. All the major and less big commercial banks in the UK are members of our association as are the large international EU banks, the US banks operating in the UK and banks from India, Japan, Australia and China. The integrated nature of banking means that our members are engaged in activities ranging widely across the financial spectrum encompassing services and products as diverse as primary and secondary securities trading, insurance, investment banking and wealth management, as well as deposit taking and other conventional forms of banking.

Futures and Options Association ("FOA")

The FOA is the industry association for more than 160 firms and institutions which engage in derivatives business, particularly in relation to exchange-traded transactions, and whose membership includes banks, brokerage houses and other financial institutions, commodity trade houses, power and energy companies, exchanges and clearing houses, as well as a number of firms and organisations supplying services into the futures and options sector.

Global Financial Markets Association ("GFMA")

The Global Financial Markets Association (GFMA) joins together some of the world's largest financial trade associations to develop strategies for global policy issues in the financial markets, and promote coordinated advocacy efforts. The member trade associations count the world's largest financial markets participants as their members. GFMA currently has three members: the Association for Financial Markets in Europe (AFME), the Asia Securities Industry & Financial Markets Association (ASIFMA), and, in North America, the Securities Industry and Financial Markets Association (SIFMA). Learn more at www.gfma.org.

Institute of International Finance ("IIF")

The Institute of International Finance, Inc. (IIF), is a global association created in 1983 in response to the international debt crisis. The IIF has evolved to meet the changing needs of the international financial community. The IIF's purpose is to support the financial industry in prudently managing risks, including sovereign risk; in disseminating sound practices and standards; and in advocating regulatory, financial, and economic policies in the broad interest of members and foster global financial stability. Members include the world's largest commercial banks and investment banks, as well as a growing number of insurance companies and investment management firms. Among the IIF's Associate members are multinational corporations, consultancies and law firms, trading companies, export credit agencies, and multilateral agencies. All of the major markets are represented and participation from the leading financial institutions in emerging market countries is also increasing steadily. Today the IIF has more than 400 members headquartered in more than 70 countries.

International Swaps and Derivatives Association, Inc. ("ISDA")

Since 1985, ISDA has worked to make the global OTC derivatives markets safer and more efficient. Today, ISDA is one of the world's largest global financial trade associations, with over 800 member institutions from 56 countries on six continents. These members include a broad range of OTC derivatives market participants: global, international and regional banks, asset managers, energy and commodities firms, government and supranational entities, insurers and diversified financial institutions, corporations, law firms, exchanges, CCPs and other service providers.

Appendix 3

ISDA®

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January 18, 2011

David A. Stawick
Secretary
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, NW.
Washington, DC 20581

Re: RIN No. 3038-AD99 - Advanced Notice of Proposed Rulemaking — Protection of Cleared Swaps Customers Before and After Commodity Broker Bankruptcies (75 Fed. Reg. 75162)

Dear Mr. Stawick:

The International Swaps and Derivatives Association, Inc. ("ISDA") is writing in response to the Advanced Notice of Proposed Rulemaking regarding the Protection of Cleared Swaps Customers Before and After Commodity Broker Bankruptcies (the "ANPR") issued by the Commodity Futures Trading Commission (the "Commission"), seeking comment on possible models for implementing certain provisions of Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act").

ISDA, which represents participants in the privately negotiated derivatives industry, is among the world's largest global financial trade associations as measured by number of member firms. ISDA was chartered in 1985 and today has over 800 member institutions from 54 countries on six continents. Its members include most of the world's major institutions that deal in privately negotiated derivatives, as well as many of the businesses, governmental entities and other end users that rely on over-the-counter derivatives to manage efficiently the risks inherent in their core economic activities.

Since its inception, ISDA has pioneered efforts to identify and reduce the sources of risk in the derivatives and risk management business through documentation that is the recognized standard throughout the global market, legal opinions that facilitate enforceability of agreements, the development of sound risk management practices, and advancing the understanding and treatment of derivatives and risk management from public policy and regulatory capital perspectives.

ISDA respectfully submits the following responses regarding the ANPR. These responses focus on the Commission's requests for estimates of industry-wide costs that would be required to implement the various models described in the ANPR. This letter first describes different types of costs implicated by the various models and a suggested methodology for estimating those costs, and then applies that methodology to the individual models to provide industry-wide cost estimates

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for each model. It concludes with some observations relating to offering customers the option to choose between different models.

As a general matter, ISDA notes that the estimates provided below have been produced on an expedited basis, and could be substantially improved with further study, including (a) obtaining data (i) from market participants, derivatives clearing organizations ("DCOs"), futures commission merchants ("FCMs") and other experts as more data on cleared swaps becomes available and (ii) for other types of swaps beyond just interest rates which were the only swaps included in the estimates below and (b) expanding the analysis beyond the "hard dollar" costs to investigate potential systemic costs if moral hazard is introduced by the new models proposed by the Commission. We therefore suggest that the description of the types of cost implied by each of the models described below and the identification of methodologies for measuring those costs are as important as the final estimates produced.

I.   Types of Cost

The ANPR requests feedback on the incremental cost that would be incurred in adopting each of three possible models for regulation of the treatment of customers' collateral posted in respect of cleared swaps, compared with the Baseline Model. The Baseline Model would be based on the regulations that currently apply to collateral posted for futures contracts, and would provide that the money, securities and other property collateralizing the obligations arising out of the cleared swaps positions of all cleared swaps customers of a FCM that is a member of a DCO are held at the DCO on an omnibus basis. The DCO would have recourse to all such collateral (including any collateral representing the value of collateral posted by that FCM's non-defaulting customers) in the event of any failure of the FCM member to meet a margin call with respect to the FCM's cleared swaps customer account at that DCO.

The three other models are (1) Full Physical Segregation (the "Individual Segregation Model"), (2) Legal Segregation With Commingling (the "LSOC Model") and (3) Moving Customers to the Back of the Waterfall (the "Waterfall Model"). We will refer to these models collectively as the "New Models".

- Under the Individual Segregation Model, each customer's cleared swaps account, and all property collateralizing that account, is kept separately for and on behalf of that cleared swaps customer, at the FCM, at the DCO, and at each depository. As a result, if the FCM defaults, collateral posted by the defaulting FCM's non-defaulting customers would not be available to the DCO as a DCO default resource.

- Under the LSOC Model, the collateral of all cleared swaps customers of a FCM member of a DCO is kept on an omnibus basis, but is attributed to each customer based on the collateral requirements, as set by the clearinghouse, attributable to each customer's swaps. If the FCM defaults, the DCO must treat each customer's swaps positions, and related margin (based on the positions reported as of the day previous to the default) individually. In particular, the DCO may not use the collateral attributable to the defaulting FCM's non-defaulting customers as a DCO default resource.

- Under the Waterfall Model, as under the LSOC Model, the collateral of all cleared swaps customers of an FCM member of a DCO is kept on an omnibus basis. Unlike the LSOC Model and the Individual Segregation Model, if the FCM defaults, the DCO may use the remaining collateral attributable to each of the defaulting FCM's customers (including that FCM's non-defaulting customers) as a DCO default resource, but only if the DCO has first applied both (a) the DCO's contribution to its default resources from its own capital and (b) the guarantee fund contributions of all members of the DCO. It is not clear from the ANPR whether "the guarantee fund contributions of all members of the DCO" would include only the funded portion of such guarantee fund contributions, or also any unfunded portion, i.e. further contributions that the DCO's clearing members are liable to make to the guarantee fund pursuant to an assessment authority of the DCO. It has not been necessary for purposes of the cost estimates below to make any assumption on this question, but this point should be clarified to allow end users, clearing members and DCOs to assess the impact of the Waterfall Model on the risk each end user and clearing member bears to the risk of a default by a FCM's customer. If unfunded assessments are required to be completed, clarity should be provided on how multiple sequential customer defaults would be treated.

There are three main types of additional cost that would be implicated in moving from the Baseline Model to one of the three New Models:

- Operational and compliance costs;

- Collateral requirements (increased IM or guarantee fund contributions); and

- Any systemic costs that may be implied by a New Model (including any potential moral hazard). Such potential costs are not addressed in this letter and would be very hard to quantify, therefore requiring further detailed study.

Operational and Compliance Costs

Operational costs will increase to the extent that more operational activity is required to comply with a model's requirements. Operational activity includes establishing and maintaining cash and securities accounts, making transfers to and from cash accounts (including messaging and wire transfer costs) and securities accounts (including receive and deliver fees), performing reconciliations, regulatory reporting, calculating funding requirements for cash and securities and on-boarding and client service activities. These costs are incurred in different ways. Some are likely to be up-front fixed costs, such as costs involved in opening new accounts and internal and external development of technologies to support the new systems, including vendors' ability to make changes to the industry operating systems in a timely manner to support any required implementation of the revised customer protection rules. Others are ongoing costs that may vary with the number of customers clearing through the FCM, such as account maintenance, cash and securities transfer fees, reconciliations, regulatory reporting, calculation of funding requirements, on-boarding of clients and client service, as well as the personnel costs associated with supporting these activities.

It is important to note that, for these purposes, the "customer" of the FCM is the individual legal entity that is the counterparty to swap transactions cleared through the FCM. In particular, in the case of an asset manager that acts on behalf of multiple underlying funds, each individual underlying fund is a customer which will require the set-up and maintenance of increased operational capabilities.

Compliance costs will also increase to the extent requirements applicable to FCM's become more stringent or complex. Compliance costs are principally ongoing costs incurred in hiring additional staff to oversee and ensure compliance by the FCM with the new requirements.

One aspect of the Waterfall Model that was unclear was whether FCMs would have to report to the DCO, on a daily basis, the portfolio of rights and obligations attributable to each cleared swaps customer and perform necessary related reconciliations. The description of the Waterfall Model states that it is similar to the LSOC Model with two modifications, neither of which relates to the information that would be provided by FCMs obligation in this daily report. Whether this information will be required to be reported under the Waterfall Model may depend upon whether the intent is that the collateral of the defaulting customer should be immediately available as a DCO default resource, with only the collateral of non-defaulting customers being moved to the back of the waterfall. As these reporting and related compliance activities constitute the main additional source of operational and compliance cost for the LSOC Model over the Baseline Model, ISDA believes that clarification of whether these activities are required would result in more accurate cost estimates for the Waterfall Model.

Collateral Requirements

As noted above, under the Individual Segregation Model and the LSOC Model, the collateral of a defaulted FCM's non-defaulting customers will not be available to the DCO as a DCO default resource. Under the Waterfall Model, the collateral of a defaulted FCM's non-defaulting customers will only be available to the DCO after the DCO has first applied its own capital and the guarantee fund contributions of its clearing members, which would take some period of time. This stands in contrast to the Baseline Model, in which the collateral of a defaulted FCM's non-defaulting customers will immediately be available to the DCO as a DCO default resource. This has different implications for the different New Models.

Under the Individual Segregation Model and the LSOC Model, the DCO's default resources will be diminished compared to the Baseline Model. In order for the DCO to maintain its default resources at levels that are risk-appropriate and reflect applicable regulatory requirements, the DCO will require additional IM and/or additional guarantee fund contributions from the FCM (which costs would likely be passed onto its customers).

Under the Waterfall Model, the total default resources available to the DCO will be the same, but a proportion of those resources (the collateral held in a defaulting FCM's customer account) will only be available to the DCO after a delay. The DCO, acting prudently, would need to take account of that delay in determining how much IM customers would need to post, because during that delay, the value of the defaulted FCM's swaps positions and the value of the collateral posted by the customers could change, exposing the DCO to risk of further loss. For cleared OTC derivatives today, IM is typically calculated by DCOs to cover potential price movements during a five day

period to allow the DCO to run through its default procedures (the time necessary will likely vary depending on the applicable asset class). Under the Waterfall Model, the DCO would not be able to access that IM until it had completed its default procedures on the guarantee fund. The amount of additional risk implied by this waiting period may depend on the risk reflected in the customers' portfolio. If the customers' transactions are directional and the asset class is relatively liquid, then the DCO may anticipate being able to hedge the risk in the customers' portfolio during the period in which the default procedures are run in respect of the DCO's guarantee fund. If the portfolio is not directional but is exposed to other risks such as volatility, or if the asset class is less liquid, then the DCO might not be able to hedge the risk in that portfolio during the period in which those default procedures are completed. In this latter case, assuming that the DCO would need an additional time to run through a more complex set of default procedures to incorporate the Waterfall Model, the number of days' risk to be covered by customers' IM would increase. This increased risk would require an increase in IM provided by customers and/or the guarantee fund when compared to the Baseline Model.

II. Methodology for Estimation of Industry-wide Incremental Costs

In order to calculate an estimation of the industry-wide incremental costs of each of the three New Models, ISDA requested submissions of cost estimation from individual member firms that are or anticipate being FCMs to clear swaps for their customers. These estimations were performed in respect of three different possible sets of costs: (a) operational and compliance costs, (b) increases in IMs and (c) increases in guarantee fund contributions. The methodologies used for these three estimations are set out below.

Operational and Compliance Costs Estimation Methodology

After identifying the different sources of additional operational and compliance costs set out under "Operational and Compliance Costs" in section I above, individual FCMs submitted their own estimations of the additional costs for that FCM that would be incurred in complying with the requirements of each New Model. These estimations were split into upfront and ongoing annual incremental costs.

As each FCM was making an estimation of incremental costs over the Baseline Model, each FCM was required to make certain assumptions about future activity, and ISDA recognized that different FCMs may make different assumptions depending on their assessment of the likely activity of their customers. However, in order to maximize the consistency of approach, ISDA proposed guidelines to be used by the FCMs in making their estimations. These guidelines were as follows:

- For one customer there would be a minimum of five accounts per currency in order to move cash and securities of such customer and subsequently the DCO for cleared swaps: (a) regular cash account (account into which customers pay monies at the FCM, a combination of variation margin and IM), (b) FCM settlement account (the FCM's representation of the client account sitting at the particular DCO), (c) investment account (client account at the FCM where excess funds are held for investment), (d) FED custody account (individual client account at the FCM for securities being held as either excess collateral or the pledged collateral for IM at the FED) and (e) DTC custody account (individual client account at the FCM for securities being held as either excess collateral or

the pledged collateral for IM at the DTC). For the Individual Segregation Model, five accounts per currency for each client will be required.

- On average, a customer will have requirements in two currencies.

- On average, a customer will clear through two different DCOs.

- There are 250 business days per year.

Under the Baseline Model there would be one payment made by the FCM to the DCO daily to cover the margin call for all the FCM's customers. In the Individual Segregation Model as it relates to the FCM and DCO relationship, as an example, assuming one FCM, two DCOs, one currency, and 1000 client accounts, a FCM would have to make 2000 wire transfers compared with the two wire transfers it would have to make under the Baseline Model. Under the Individual Segregation Model, it is easy to see how the number of wire transfers, accounts, and other activities would increase exponentially with multiple DCOs and currencies.

In conjunction with the wire transfers, there is the additional duty of reconciling the cash and security balances at each of these accounts for each client at each DCO against the equivalent at the FCM. The current CFTC regime requires regulatory balance reporting by noon EST daily for the existing omnibus accounts. The Individual Segregation Model would require confirmation and reporting of balances across the entire population of customer accounts as described above. The CFTC regulations require supervision of these activities by experienced and senior members of the FCM's organization, which therefore generally requires a senior individual to fulfill this role. Lastly FCM and DCO's infrastructure would need to be retooled in order to create the full segregation capability required by the Individual Segregation Model. The cost estimates set out for the Individual Segregation Model in section III below reflect these considerations.

As mentioned, the FCMs were free to modify these proposed guidelines if they felt that other assumptions were more appropriate and would more accurately reflect their customers' anticipated activity.

ISDA then calculated the average upfront and ongoing annual incremental costs for an individual FCM for each model.

Increases in IMs

The methodology used to estimate the industry-wide increase in IMs for the Individual Segregation Model and the LSOC Model adhered to the following steps: first, data from the interest rate OTC derivatives market was used to identify the current gross notional amount of customer transactions. Second, individual FCMs determined the gross notional of their own customer-facing transactions (the "<u>FCM Customer Gross Notional</u>"), and the gross notional of those transactions that are likely to be cleared, taking into account those customers whose activities are likely to be exempt from clearing (the "<u>FCM Customer Cleared Gross Notional</u>"), expressed as a percentage of the FCM Customer Gross Notional (the "<u>FCM Customer Cleared Percentage</u>"). Next, the required IM using the 99% confidence level was calculated by individual FCMs for the FCM Customer Cleared Gross Notional, expressed as a percentage of the FCM Customer Cleared Gross Notional (the "<u>FCM Customer IM Percentage</u>"). The FCM Customer IM Percentage was then recalculated using the

99.9% confidence level[1], and the increase in the FCM Customer IM Percentage between the 99% and the 99.9% confidence levels was expressed as a percentage increase (the "<u>FCM Customer IM Percentage Increase</u>"). Finally, the FCM Customer Cleared Percentage, FCM Customer IM Percentage at the 99% confidence level and the FCM Customer IM Percentage Increase were reported by the participating FCMs to ISDA.

From the submissions received, ISDA took a simple average of the FCM Customer Cleared Percentages and FCM Customer IM Percentage Increases reported, and applied them to the gross notional reported for all customer interest rate OTC derivatives transactions to produce an estimation of industry-wide increases in IM that would be required for the three New Models.

To estimate the industry-wide increase in IMs for the Waterfall Model, ISDA used the same figures for current gross notional amount of customer interest rate transactions, average FCM Customer Cleared Percentage, and average FCM Customer IM Percentage to determine the current anticipated IM required for interest rate swaps. To avoid overstating the increase in the IM required, and reflecting the uncertainty around how DCOs will assess the risk of delay in accessing customer collateral as a default resource, the increase in IM for the Waterfall Model was estimated at 45%.

Further details and observations on this process are set forth below.

ISDA believes that in order to estimate increases in IMs that would result from any of the three New Models, it is necessary first to estimate the likely gross notional amount of customer cleared transactions, because the IMs posted by clearing members for their house positions will continue to be a DCO default resource under any of the three New Models, as is currently the case for the Baseline Model. As a proxy for this trade population, ISDA used data from the Interest Rate Trade Repository Report published by TriOptima as of close of business on November 19, 2010[2], specifically the USD equivalent of the gross notional amount of interest rate OTC derivatives transactions with Non-G14 Dealer counterparties reported to TriOptima[3]. To ensure consistency, FCMs were asked to determine their individual FCM Customer Gross Notional figures using data reported to them by TriOptima as of the same date. The TriOptima figures for transactions with Non-G14 Dealer counterparties are considered to be a reasonable proxy for industry-wide interest rate OTC derivatives transactions with customers, given the level of participation in TriOptima's Interest Rate Trade Repository Reports and the firms included in the G14 Dealers. The data used was limited to the interest rate asset class because the gross notional amount of interest rate OTC derivatives is by far the largest component of gross notional amount in the OTC derivatives market[4], and because including other asset classes would introduce further complexity that likely could not properly be taken into account in the time available. ISDA stresses that because this excludes other asset classes, it will likely have resulted in an <u>understatement</u> of each FCM Customer IM Percentage and FCM Customer IM Percentage Increase and will therefore produce an understated estimate of industry-wide IM increase required.

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[1] The ANPR makes reference to "99.99%", but ISDA believes the number actually referred to was "99.9%".
[2] Available at http://www.trioptima.com/repository.html
[3] The total gross notional figure transactions with Non-G14 Dealer counterparties was USD 163,315 BN.
[4] According to the Bank for International Settlements ("<u>BIS</u>"), at the end of 2009 the total notional amount of all derivatives outstanding was USD 614,674 BN, while the total notional of interest rate derivatives was USD 449,793 BN, or 73%.

The actual IM that is required to be posted by a clearing customer to a DCO will depend on the portfolio of derivatives that customer has facing that DCO, which of course varies by customer. In calculating the FCM Customer IM Percentage, FCMs were therefore asked to calculate, for transactions that are likely to be cleared, the current IM requirements for each customer individually at the 99% confidence level, and to aggregate those to produce the FCM Customer IM Percentage. Importantly, this calculation reflects an embedded assumption that each customer will clear through only one DCO, which maximizes the benefits of portfolio margining and therefore, as with the exclusion of other asset classes, potentially understates the FCM Customer IM Percentages and FCM Customer IM Percentage Increases.

In practice, not all interest rate swap transactions will be cleared, either because the underlying product is not cleared by any DCO, or because clearing of the particular interest rate product is not mandatory and not cleared or because the customer is relying on an exemption from the clearing requirement. That is why FCMs were asked to estimate the FCM Customer Cleared Percentage, to avoid potential overstatement of the FCM Customer IM Percentages and FCM Customer IM Percentage Increases.

For the Individual Segregation Model and the LSOC Model, following suggestions made at the Commission's Staff Roundtable on Individual Customer Collateral Protection (the "Roundtable") and reported in the ANPR, DCOs will require IMs to be calculated at the 99.9% confidence level, instead of the 99% level, if the collateral of non-defaulting customers is not available as a DCO default resource. ISDA's estimates use the same methodology, which is why each FCM Customer IM Percentage Increase was calculated as the change resulting from moving from the 99% confidence level to the 99.9% confidence level[5].

For the Waterfall Model, substantial further study would be required to develop a margin methodology that recognized that some risk factors could be managed within a five day period and others, within ten days, and then to determine from a representative sample of client portfolios what the average or industry-wide effect would be given those factors. If the period of risk to be covered by IM were increased from five to ten days, then the required increase in IM was preliminarily estimated at 75% based on the interest rates asset class. However, to reflect the questions raised over whether such risks could be hedged during the default procedure period in respect of the guarantee fund, this was reduced to 45%. More precise estimates could be generated with further study, as recommended herein.

Increases in Guarantee Fund Contributions

The methodology used to estimate the industry-wide increase in guarantee fund contributions for the Individual Segregation Model and the LSOC Model was as follows: a ratio of total IM to total gross notional for OTC interest rate derivatives transactions was calculated by two FCMs by deriving a theoretical IM for each counterparty of that FCM (excluding cleared transactions and intra-group transactions, but not limited just to customer counterparties) at the 99% confidence level, assuming that all such transactions are cleared with the same DCO.

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[5] As noted above, the ANPR reports that a DCO estimated at the Roundtable that "it might need to increase collateral from a 99% confidence level to a 99.99% confidence level", but ISDA believes the increase described was in fact to a 99.9% confidence level. An increase to the 99.99% confidence level would imply a 200% increase in collateral required.

The percentage of transactions in the interest rates asset class that will be cleared was then estimated. In contrast with the FCM Customer Cleared Percentages estimated for the IM increases explained above, this estimate was based on all transactions, not just transactions with customers, since any increases to the required guarantee fund of a DCO will apply to FCM "house" as well as FCM customer positions.

The ratio of IM to total gross notional and the percentage of transactions that will be cleared were then applied to the outstanding gross notional amounts for the interest rate asset class obtained from the BIS report as of December 2009[6] to estimate the industry-wide IM requirements for that asset class.

The IM requirement calculated for the interest rates asset class was then used to determine the guarantee fund that ISDA believes will be required by DCOs as a percentage of the total IM based on current market practice for clearing interest rate swaps. For this purpose, it was assumed that the largest two clearing members will account for 12.5% of the cleared notional each (25% together), and that the IM required at the 99.9% confidence level is 60% more than that required at the 99% confidence level. In futures, at the CME, ISDA understands that the two largest FCMs currently account for approximately 30% of the IM together, so the 25% assumption here is conservative. The 60% increase was estimated by fitting a fat-tailed distribution to interest rate OTC derivatives transactions.[7] Based on information provided by DCOs, the guarantee fund would be required to approximately double[8] if the collateral of a non-defaulting customer is not available as a DCO default resource, i.e. under the Individual Segregation Model and the LSOC Model. ISDA used this to estimate the increase in guarantee fund requirements that would be required.

ISDA did not estimate an increase in required guarantee fund contributions for the Waterfall Model, because the calculation would require more understanding of the make-up of OTC Cleared client omnibus accounts in terms of size distribution and diversity of client risk at the typical OTC clearing FCM.

III.   Cost Estimate Results

The incremental additional costs on an industry-wide level for each of the three New Models over the Baseline Model obtained using the methodologies described above are presented below, followed by some observations on the results. For each New Model, the additional upfront and annual operational and compliance costs are presented, followed by the additional IM requirements and the additional guarantee fund requirements. ISDA does not express a view as to what might be an optimal balance between IM and guarantee fund requirements for each New Model, and so, with the exception of the Waterfall Model, the incremental IM requirement and the incremental guarantee fund requirements are presented as alternates. The incremental cost of a particular New Model over the Baseline Model is therefore the upfront and ongoing additional operational and compliance costs of that New Model plus either the additional IM requirement or the additional guarantee fund contribution requirement for that New Model.

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[6] BIS, OTC derivatives market activity in the second half of 2009, available at www.bis.org.
[7] As a comparison, for futures, which are much more normally distributed (once the stochastic volatility component is removed by de-volatizing) the corresponding number is 33%.
[8] See for example comments made by Ms. Taylor at the Commission's Staff Roundtable on Individual Customer Collateral Protection at page 124 of the transcript:
http://www.cftc.gov/ucm/groups/public/@swaps/documents/dfsubmission/dfsubmission6_102210-transcrip.pdf

The results are summarized in the table below as additional costs over the Baseline Model:

	Individual Segregation Model	LSOC Model	Waterfall Model
Average upfront operational and compliance cost per FCM:[9]	$33.2 million	$1.0 million	$0.8 million
Average ongoing annual operational and compliance cost per FCM:[10]	$136.3 million	$16.2 million	$16.1 million
Industry-wide additional IM required:[11]	$581 billion	$581 billion	$375 billion
Industry-wide additional guarantee fund contributions required[12]:	$128 billion	$128 billion	N/A[13]

Observations on Results

As noted above, the FCMs were required to make a number of assumptions about future activity, and given the time available for comment on the ANPR, it was not possible to develop stricter assumptions that could be applied across FCMs. In addition, the manner in which the cost information requested is accounted for in different FCMs may vary widely, presenting challenges in arriving at a consistent set of assumptions and categories for the various costs involved. These estimates could be substantially improved by a more detailed study of these issues than was possible in the time allowed for this letter. Thus, given the high potential costs shown in these estimates, ISDA strongly encourages the Commission to undertake a full and thorough study with input from a broad set of market participants to develop the most accurate assessment possible of the costs to the industry of implementing any of the three New Models and to delay issuance of proposed or final rules until such a study can be completed.[14] Increased expense may make a

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[9] ISDA received submissions on upfront costs from 5 FCMs.

[10] ISDA received submissions on ongoing annual costs from 6 FCMs.

[11] ISDA received submissions from 4 FCMs.

[12] It is important to note that the guarantee fund increase figure reported here reflects only the funded portion of the guarantee fund. It is likely that clearing members' liability to contribute to the unfunded portion of a DCO's guarantee fund would also be increased.

[13] A figure for guarantee fund contribution increase has not been included for the Waterfall Model, as the calculation would require more understanding of the make-up of OTC Cleared client omnibus accounts in terms of size distribution and diversity of client risk at the typical OTC clearing FCM.

[14] Potential assumptions about future states that would need to be made to estimate costs more accurately would include: balance sheet treatment of unmatured cleared and non cleared trades to each counterparty in the chain of trading; determination of counterparty population (if any) that will be exempt from mandatory clearing; behavior of end users in light of clearing fees and cost / benefit amongst available investment options; number of FCMs, size of those FCMs, and market share of each; determination of population of which cleared and uncleared trades and at what time (assuming a phased evolution toward clearing); the individual risk methodology of each DCO as well as rules which define membership criteria; number of CCPs centrally clearing in any given market; risk management factors in FCM and

number of investment strategies unworkable, reducing liquidity and further driving up costs for all market participants.

The ongoing annual operational and compliance costs for the Individual Segregation Model are significantly higher than for the other two New Models. This is driven in part by the volume of accounts that would need to be maintained for each customer, and the large number of customers. In particular, it should be noted that as the value of each customer's cleared swaps portfolio will likely change each day, a payment of variation margin will need to made for each customer each day for each currency and for each DCO with which that customer clears. This stands in stark contrast to the position under the Baseline Model, the LSOC Model and the Waterfall Model, in which each FCM need make only one payment each day per currency to each DCO, representing the net variation margin required to be paid by that FCM across all of its customer cleared swap portfolios. Similarly, where IM is in the form of securities, a separate securities settlement will need to take place for each customer each time that customer's IM requirement changes, whereas under the other models, only the net change in IM across all the FCM's customers with the relevant CCP need be transferred. In addition, under the Individual Segregation Model, the actual security provided as IM by the customer will need to be transferred to the DCO, further reducing the netting benefit that can be obtained under the Baseline Model by converting IM provided by the customer into other eligible investments. The result of this very large increase in the number of payments and securities settlements is a very large increase in annual wire and securities settlement fees. If the FCM is required to post specific securities provided by its client, it would also need to consider the impact of substituting the client's securities for any pre-funded amounts provided by the FCM, i.e. the FCM would need initially to post collateral on behalf of the customer, then subsequently post the specific securities provided by the customer and receive back the pre-funded amount.

Although the ANPR is not explicit on this point, ISDA interprets the Individual Segregation Model as described in the ANPR to require that, if requested by the customer, the specific assets posted by a customer as collateral must be transferred to the DCO or a depository, provided that the assets posted by the customer are eligible to be posted as collateral to the DCO, i.e. those assets cannot be converted into other investments permitted by Commission Regulation 1.25. This interpretation is reflected in the estimates set out above. ISDA has based this interpretation on a negative inference, as in its description of the Individual Segregation Model, the ANPR does not state that customers bear the risk of loss on the value of collateral subject to the investment restrictions of Commission Regulation 1.25 (unlike the descriptions of the LSOC Model, the Waterfall Model and the Baseline Model). ISDA welcomes additional clarification from the Commission on this issue.

It should be further noted that the estimates above only reflect the costs at the FCM level. To the extent that multiple accounts must be maintained by FCMs to segregate individual customers' collateral, the same number of accounts would need to be reflected at the DCO level. These estimates also do not take account of costs that DCOs would incur as a result of the increased number of accounts to be maintained.

For each of the three New Models, there is an increase in operational and compliance costs compared to the Baseline Model. In addition to the costs noted above for the Individual

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concentration and quality of clients at the FCM; the DCO's allocation between guarantee fund contributions and IM required; the allocation between the funded and unfunded portions of the guarantee fund at each DCO; and natural market evolution of where (asset class, tenor, global jurisdiction) investment managers determine the opportunities lie (i.e. portfolio construction).

Segregation Model, the increased costs under all three New Models are driven by the need to provide for additional staffing to comply with the information monitoring and reporting requirements that the three New Models imply. As noted above, the ANPR did not explicitly set out the operational and compliance obligations under the Waterfall Model. ISDA believes the small discrepancy between the numbers reported above between the LSOC Model and the Waterfall Model may represent different interpretations of that requirement. ISDA believes that if no additional reporting activities are required under the Waterfall Model compared with the Baseline Model, that there would not in fact be a significant increase in operational and compliance cost compared with the Baseline Model.

The additional IM and guarantee fund contributions required by the Individual Segregation Model and the LSOC Model are the same. This is because, as noted above, the risk impact of these two New Models on the DCO is the same. The additional IM required by the Waterfall Model would be roughly similar.

The interest rates asset class, while a very high percentage of derivatives, does not encompass all asset classes that likely will be cleared. The estimates of IM increase over the Baseline Model, reflecting only interest rate data, are therefore lower than they would have been had time and data been available to expand the analysis to other asset classes.

The results of the estimations used to calculate the additional IM required by each of the three New Models are set out below:

Additional IM required (compared with the Baseline Model):

	Individual Segregation and LSOC Models	Waterfall Model
Gross notional amount of transactions with Non-G14 Dealer counterparties:	$163,315 billion	$163,315 billion
Average of FCM Customer IM Percentages at 99% confidence level:	0.63%	0.63%
Average of FCM Customer Cleared Percentages:	81.00%	81.00%
Estimated industry-wide total IM required for customer cleared transactions at 99% confidence level:	$833 billion	$833 billion
Percentage increase in IM[15]:	69.75%	45.00%
Estimated industry-wide total increase in IM for customer cleared transactions:	$581 billion	$375 billion

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[15] Please see Section II above under "Increases in IMs" for details on how these percentages were estimated.

The estimates used to determine the additional guarantee fund contributions required (compared with the Baseline Model) for the Individual Segregation Model and the LSOC Model based on the interest rates asset class are as follows:

Gross notional amount of transactions (all counterparties):	$449,793 billion
Clearable percentage:	90%
Ratio of IM to gross notional:	0.21%
IM requirement:	$850 billion
Guarantee fund contribution as percentage of IM:	15%
Guarantee fund contribution:	$128 billion

IV.   Optional Models

As will be clear from the above, each New Model implies significant additional cost over the Baseline Model. The ANPR suggests the possibility of customers being offered a choice between different models.

If optionality is offered, certain costs could be incurred by FCMs and DCOs in providing any New Model. To give market participants appropriate incentives, the implementation of any requirement on FCMs or DCOs to offer optionality should be carefully considered so that those customers who do not select the option of increased collateral protection do not directly or indirectly bear the cost of offering that protection to other customers. One way in which this might occur is if highly credit worthy customers choose the more expensive, higher protection, option, so that the fellow customer risk is borne by the more risky customers, thereby reducing the effectiveness of the pooling from the point of view of the DCO, who must now also raise IM for those bearing fellow customer risk. This increase in IM not only results in an increased funding cost for those clients that did not need or want increased protection, but also increases the amount of collateral that those customers have at risk of loss mutualization.

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ISDA appreciates the opportunity to provide comments on the Proposed Regulation and looks forward to working with the Commission as you continue the rulemaking process. Please feel free to contact me or my staff at your convenience.

Sincerely,

Robert Pickel
Executive Vice Chairman