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Capitalisation of Default Fund Exposures and Hypothetical Capital Methodologies

Dear Giuseppe

We[1] refer to the proposed rules in *Capitalisation of bank exposures to central counterparties* ("BCBS 206") dated 2 November 2011. We appreciate the time taken by the RMG to consider alternative capital treatment methodologies for the default fund exposure in order to address the unintended consequences resulting from *mandating* the adjusted Current Exposure Method ("CEM") for Qualifying CCPs[2]. The purpose of this letter is to assist this work, which is crucial for advancing the move towards more central clearing. We remain concerned that the current proposals discourage the propagation of central clearing (counter to the G20's policy objective) and fail to provide incentives for CCPs to invest in the improvement of their risk systems and methodologies, thereby increasing systemic risk.

This letter contains three parts. First, we offer credible potential alternatives to the CEM methodology. Second, we set out key considerations under separate subject titles regarding the capitalisation of default fund exposures, including an estimation of the size of the overstated CEM derived hypothetical capital requirement. An important related matter addressed is the fact that capitalisation for default contributions should be capped to the legal obligations of the bank. Third, we raise several matters, again under separate subject titles, which make it evident that the remainder of the work around the CCP framework is not just "work for the Qualifying CCPs and the CEM issue", but that there are additional hurdles to implementation. If these hurdles are not resolved shortly they will put back the date when capital efficient adoption of the framework can be achieved. As it stands, an implementation date of 1 January 2013 will cause significant capital drag in clearing and exchange traded derivatives.

To further our engagement, we would like to arrange a meeting with the RMG or the relevant working group on this topic, and would be grateful if you would propose suitable dates.

Part 1 – Alternative Solutions

The table below highlights workable potential alternatives to the CEM methodology ranked in order of preference.

Rank in order of preference	Methodology	Advantages	Disadvantages
1	Build on/Utilise CCPs' existing risk model: Give CCPs ability to apply for permission to use appropriately risk-sensitive models for the hypothetical capital calculation (Internal Models Method, including the IMM shortcut method and methods tailored to the business and the CCP's existing model) Basel could also set minimum target levels for models, for example on confidence level and minimum close-out period, to aid comparability. CCPs without adequate risk management and modelling competence use adjusted CEM.	• Risk sensitive and so the hypothetical capital requirement will be more reflective of the actual counterparty credit risk the CCP faces and hence real risk the default fund contributions could be lost. It is important to emphasize that while risk sensitive measures may ultimately reduce the regulatory capital requirements banks hold against their default fund contributions compared to using the Adjusted CEM method, if there is no increase in the actual risk that the default fund contribution may be lost, then a reduction in regulatory capital against that exposure will not affect bank stability. • Can be tailored for a particular CCP business • Proven model, existing experience in industry and regulatory community • In line with normal banking regulations • In line with the Basel regulatory use test requirement	• Requires resources in competent authorities to review • Must be calculated centrally by the CCP
2	Standardised Method	• More risk sensitive than CEM. Again, while risk sensitive measures may ultimately reduce the regulatory capital requirements banks hold against their default fund contributions compared to using the Adjusted CEM method, if there is no increase in the actual risk that the default fund contribution may be lost, then a reduction in regulatory capital against that exposure will not affect bank stability. • Implementation easily feasible, even for less sophisticated CCPs • In line with normal banking regulations	• Many CCPs have expertise to use more risk sensitive models and regulators are experienced in the approval and supervision of these models. • Netting effectiveness dependent on asset class • Must be calculated centrally by the CCP
3	Historical drawdown model: Historical drawdown on default funds, under proper default scenarios (i.e., simultaneous default of two largest CMs), would be a highly credible judge of credit exposure[3].	• Dovetails with CPSS-IOSCO Financial Market Infrastructure ("FMI") Principles • Utilises historical data already collected by CCPs; approach does not require model assumptions. • Requires particularly rigorous back-testing of CCP financial resources	• Many CCPs have expertise to use more risk sensitive models and regulators are experienced in the approval and supervision of these models. • Requires re-run of the current portfolio for the whole look-back period – not many CCPs are equipped for this processing load • Must be calculated centrally by the CCP
4	Flat 4% capital change for default fund (i.e., 50% risk weight)	• Simple • Potential "standardised" fall-back • Can be calculated by the individual banks	• Not risk sensitive • 50% risk weights seem high for clearing organisations that are deemed so safe that material parts of the OTC derivative market are cleared via them
5	Adjusted CEM model	• Relatively simple	• As noted in the introduction, the incentive structure created by capital rules must be correct. The CEM does not meet this requirement because it will suggest for a large well-hedged collection of portfolios (such as are typical of large CCPs) that the CCP's hypothetical capital is an order of magnitude higher than a risk sensitive calculation would. The consequence of this overstatement, which we have demonstrated in previous correspondence, is that default fund contributions will be (erroneously) given a 1250% risk weight. Thus there is an incentive to reduce these contributions, and an associated increase in systemic risk. • Not risk sensitive. CEM would seem to require a level of margin which is much higher than prudent well-resourced CCPs currently charge due to its risk insensitivity. At a minimum, CEM would need adaption for CCPs: low netting floor, shorter market period of risk, new calibration of add-on percentages for cleared business. • The CEM method still requires a lot of additional processing from what a CCP undertakes as part of its business as usual. • Must be calculated centrally.

Part 2 – Key considerations

Who Is Affected By Adjusted CEM

At the outset, it is important to note that this prima facie innocuous aspect of the capital rules will affect cleared financial markets and participants very broadly.

Due to the crude mechanics of CEM and the present state of OTC derivatives clearing, the use of an adjusted CEM impacts certain product portfolios more than others. Large well-hedged portfolios are particularly affected[4]. Accordingly, the overstated regulatory capital requirement for default fund contributions due to the use of adjusted CEM impacts all banks clearing large portfolios in jurisdictions where the BCBS 206 proposed rules are implemented, all CCPs who clear a material number of transactions and all CCPs who will see the volumes they clear rising in line with regulatory mandated central clearing.

As noted previously, the consequence of the CEM overstatement of risk is that default fund contributions will be (erroneously) given a 1250% risk weight (or higher where the 1.2 multiplier is used, if the default fund does not cover hypothetical capital) at each CCP. Indeed, clearing IRS through a Qualifying CCP may require higher capital than clearing through a 'non-qualifying CCP', where the capital is fixed at 100% of the Default Fund contribution. Further, the fragmented nature of the clearing market will multiply these regulatory capital burdens.

We wish to highlight that, whilst at present only one CCP is materially affected, the problem will affect all CCPs once they clear material trade volumes, which we expect them to do given the regulatory drive towards central clearing. We would not wish to see the successful, currently-affected CCP penalised for the fact that it has been providing clearing services to the industry for a number of years and therefore clears a substantial part of the inter-dealer IRS market.

On the next page we provide a quantitative illustration of how CEM generates inaccurate measurements of exposure, particularly for IRS and fails the BCBS objective of being risk sensitive. If we assume that the entire IRS Market of (say) $600trn is cleared, it implies an Exposure At Default of $1.0trn, requiring the market to hold approximately $19bn in capital if cleared through a Qualifying CCP. Using CEM may result in banks applying a higher risk weighting for cleared trades than for the equivalent bilateral trades, particularly in the case of a large hedged portfolio.

Illustration of size of overstated CEM derived hypothetical capital requirement
Assume 100% of the IRS market is cleared

Estimate of notional outstanding for IRS market gross notional[5]		600,000,000,000,000
Net to Gross Ratio		1.00%
Average Credit Conversion Factor		0.50%
BCBS netting factor allowed -->		70.00%
Gross/net components of EAD	900,000,000,000	21,000,000,000
Gross Exposure at Default (EAD) of one CCP clearing entire IRS market[6]		921,000,000,000
Aggregate collateral per typical CCP risk model	30,000,000,000	
Aggregate of CCP Default Funds	5,000,000,000	35,000,000,000
Net Exposure at Default (EADi)		886,000,000,000
Risk weight * capital ratio	= 8% of 20%	1.60%
Kccp		**14,096,000,000**
Aggregate CCP own capital allocated to the DF Waterfall		100,000,000
Required capital		13,996,000,000
Multipliers		
Effective Default Fund multiplier		1.13
Allocation factor (estimate)		1.20
Capital to be held by banks		**18,978,576,000**

This illustration shows – compared to a more realistic measure of risk, i.e. the initial margin ("IM") plus default fund contributions – a very large hypothetical capital requirement of approximately $14B and that approximately $19B will be held by banks for default fund exposures to the cleared IRS market alone.

The point is that, left unchanged the treatment obviates Qualifying CCPs current risk management models which are used to obtain existing levels of collateral and default funds. These risk management models become meaningless given these capitalisation rules. IM contributions may receive a more favourable treatment, but the hypothetical capital requirement will still drive the overall capital objective.

In summary, if Basel is correct in determining that the Adjusted CEM measure marks the correct size of CCP capital requirements, they also hold that the current risk management models of CCPs are wrong. These models have been built according to CPSS-IOSCO principles and other regulation, for example, the 99% confidence level in the Dodd-Frank Act, and have been reviewed and approved by national regulators. If Basel's objective really is to increase the resources of a CCP, they should keep in mind the systemic consequences of asking the market to fund this much margin and/or capital.

Avoid Adjusted CEM Mandate

We again ask the RMG to refrain from the compulsory use of an adjusted CEM, or any one particular methodology. Instead, we continue to urge the BCBS to allow CCPs to apply for permission to use appropriately risk-sensitive models (such as an IMM model but adapted to use in a CCP) for the hypothetical capital calculation. Permission should be granted under the same standards as for a bank, with the same requirements for back-testing, hypothetical portfolio validation, and other key risk controls. Importantly, Qualifying CCPs are required to have very robust risk management and modelling capabilities (in order to meet the recently released CPSS-IOSCO standards) so this should not pose a disproportionate burden.

This approach would not preclude any CCP from using an adjusted CEM for the default fund exposure calculation, but would allow CCPs that have invested in improved risk management systems, methodologies and resources to use those. It would provide CCPs that are not yet equipped to employ risk sensitive methodologies both a minimum standard and a strong incentive to upgrade their risk management expertise. The current settings do not provide this incentive, yet it is surely highly desirable given the growing systemic importance of CCPs as global warehouses of credit risk. Conversely, the currently-proposed capital framework would enable a CCP with comparatively low risk management expertise to receive favourable capital treatment and would not provide any incentive for such a CCP to advance its competence.

Further, the RMG can be confident that local regulators are capable of approving advanced risk methodologies as they have considerable experience reviewing, approving and supervising such models for banks and CCPs. We urge the RMG to employ and rely on the existing supervisory expertise to set a risk framework with rules that are prudent, risk sensitive and encourage central clearing and do not impose an inappropriate methodology. In addition, the insights that both CCP risk departments and regulators will obtain by developing and reviewing models will help make the system safer, and ensure sufficiently sophisticated resources are deployed in managing and supervising these important components of the market infrastructure.

Indeed, you will be aware that CPSS-IOSCO published final text on FMI standards, which determine what Qualifying and Non-Qualifying CCP is. However, there are instances where the CPSS-IOSCO FMI principles conflict with BCBS 206. For example, CPSS-IOSCO FMI Principle 3, Key consideration 1 states: *"An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review."* However, as noted above, the use of Adjusted CEM to calculate the hypothetical capital requirement does not support this principle.

Further, the recent European Banking Authority Discussion Paper on Draft Regulatory Technical Standards on the capital requirements for CCPs under the draft Regulation on OTC derivatives, CCPs and Trade Repositories[7] ("EBA DP") is focused on the risk methodologies that CCPs will use to calculate the additional capital held against market risk, credit risk and counterparty risk. In addition, from the EBA DP, we note that the expectation is that CCPs will be able to use complex internal models to calculate their own resources.
It is highly inappropriate that CCPs are mandated to use the CEM for the calculation of a CCP's hypothetical capital when CCPs are able to apply for, and receive, regulatory approval for a range of internal models for the calculation of their own capital requirements as is proposed in the EBA DP, which is consistent with the CPSS-IOSCO FMI Principles.

Finally, we acknowledge that the proposed remedy of allowing CCPs to apply to use IMM is complicated by the fact that the largest CCP are essentially multinational. Accordingly, such CCPs would likely have to obtain permission from multiple regulators. However, we think this is manageable. First, the largest CCPs already engage with multiple regulators just as many banks now have to get approval from multiple regulators. In this context, it is recognised that some regulators are willing to rely on the determinations of other regulators too. This situation may be improved by the largest international CCPs being subject to review by a 'college of regulators'. As we are not advocating the compulsory use of one methodology, smaller CCPs operating in a single jurisdiction could fall back on the standardised approach or CEM.

Predefined Observation Period

Irrespective of the form in which the proposals discussed above are finalised we strongly urge the RMG to instigate a parallel reporting process during a predefined observation period, so that the calculations, including for hypothetical capital, can be observed and subjected to further analysis. We suggest that during the observation period at least two alternative hypothetical capital calculations be required in order to obtain additional information regarding how hypothetical capital ought ultimately to be calculated. An observation period would provide the industry, including CCPs, time to implement the necessary changes to produce capital figures in compliance with regulatory reporting deadlines. It would also provide regulators the opportunity to review the CCPs' models, and to make improvements where necessary. In that regard, we urge the BCBS to monitor closely participant behaviour during the parallel observation period and to incorporate any lessons learned into the capital rules. An appropriate observation phase will better ensure the new CCP capital regime produces an appropriate incentive structure and appropriate calibration of the new rules.

In this regard, we emphasise our support for the observation period proposed in the tabled amendment by MEP Schmidt to the draft Karas Report[8]. The relevant excerpt is provided below:

> Article 484 a (new) …
>
> 2. EBA shall monitor and evaluate the operation of the provisions for own funds requirements for exposures to a central counterparty as set out in Section 9 of Chapter 6 of Title II of Part Three. By 1 January 2015 EBA shall report to the Commission on the impact and effectiveness of such provisions.
>
> …
>
> 4. The Commission shall, by 31 December 2015, submit to the European Parliament and the Council proposals, based upon modifications to international standards and the report made under paragraph (2), for amendment to this Regulation.
>
> **Justification**
>
> The current proposals on capitalisation of exposures to CCPs from the Basel Committee and reflected in the Capital Requirements Regulation (CRR) Articles 294-300, are counter to the regulatory objectives of the G20, CPSS-IOSCO and EMIR. Because the proposals have been calibrated using QIS data based on current market conditions with little OTC activity, and not a post-EMIR environment, the incentives and approach will lead to serious unintended consequences including disincentivising clearing members from providing client clearing services and creating strong procyclical effects through misallocation of capital and liquidity.

Treatment of Client Trades for Hypothetical Capital Calculation

We seek clarification from the RMG on the capital treatment of cleared trades that CMs undertake on behalf of clients in respect of the hypothetical capital calculation. Given the existence (and capital incentives for) client account segregation and "very likely portability", it is unlikely that client loss will result in a loss to the default fund. Certainly, it would be extreme to add all client positions to house positions for the purposes of hypothetical capital calculation and contradict the rationale for the favourable risk weights afforded for client trade-related exposures. Accordingly, we propose that, all client trades are excluded from the hypothetical capital calculation with a potential future review of this treatment based on the development of segregation structures.

Default Fund Contribution – 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. As noted previously, 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.

Part 3 – Implementation hurdles beyond CEM

Navigation of legal terms in BCBS 206

It is perceived that the BCBS considers the proposed capital framework for exposures to CCPs as near-final. However, we wish to raise the following, which suggests to us otherwise:

There is considerable difficulty in navigating key legal terms in BCBS 206. This is unusual as normally a capital framework follows established market practices and legal terminology. In order to address these difficulties, we would welcome a revised version of BCBS 206 with clearly defined terms. We are willing to help with this work.

Example 1: BCBS 206 refers to "highly likely portability". As we have noted, without further guidance, it is difficult to determine what this means in practice.

Example 2: Existing futures documentation has second-lien on client money held at exchanges. Yet this is ineligible as a risk mitigate in the BCBS 206 framework. This new ineligibility significantly increases the cost of listed derivatives beyond the fixed price contracts in place today. In renegotiations on futures documents, CMs are relinquishing prudent and traditional credit terms as the quid-pro-quo.

Use of the 2% risk-weight for loans hedged by cleared CDS

If a bank hedges loan exposure with cleared CDS, it seems as if the bank can use the 2% risk-weight for the loan. That said, we seek explicit guidance on how substitution or double-default treatments work for risk-weighting the loan in BCBS 206.

CMs' Modelling

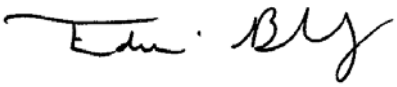
As the proposed rules in BCBS 206 also affect exchange traded derivatives, many banks will need to include these transactions in the scope of their IMM models. Also, since CCPs' IM models are not known in detail to banks and risk for cleared transactions has a short margin period, full modelling of exposures for cleared transactions over several years does not provide many gains. Accordingly, we suggest amendment of the IMM short-cut method for cleared exposures, so that potential future exposure as well as current exposure can be covered by IM.

Conclusion

An important public policy rationale for the proposed reforms is to require banks to more appropriately capitalise their exposures to CCPs, including default fund exposures. While this is an appropriate goal and some progress has been made towards satisfying this objective, more consultation, dialogue and open debate among affected parties is necessary to replace the mandatory Adjusted CEM treatment with an alternative approach that is efficient, effective and proportionate to the policy goal. As stated at the outset, effective reforms require an active dialogue with the industry, CPSS-IOSCO and Basel and we would be grateful to meet with the RMG or the relevant working group on CEM alternatives and related considerations, and would be grateful if you would propose suitable dates.

We appreciate the opportunity to provide these comments. Should you require further information, please do not hesitate to contact the undersigned.

Yours sincerely,



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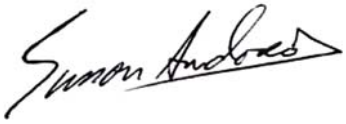

Simon Andrews
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Annex 1

ISDA

Since 1985, ISDA has worked to make the global over-the-counter (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, clearinghouses and other service providers. Information about ISDA and its activities is available on the Association's web site: www.isda.org.

Global Financial Markets Association

The Global Financial Markets Association (GFMA) brings together three of the world's leading financial trade associations to address the increasingly important global regulatory agenda and to promote coordinated advocacy efforts. The Association for Financial Markets in Europe (AFME) in London and Brussels, the Asia Securities Industry & Financial Markets Association (ASIFMA) in Hong Kong and the Securities Industry and Financial Markets Association (SIFMA) in New York and Washington are, respectively, the European, Asian and North American members of GFMA. For more information, please visit http://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 450 members headquartered in more than 70 countries.

British Bankers' Association ("BBA")

The 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.

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

[2] Any percentage-of-notional based approach, such as the CEM, penalizes large well-hedged portfolios versus smaller riskier ones. We consider this a highly undesirable incentive, and would strongly urge the RMG to consider approaches which do not suffer from this drawback. As noted previously, the CEM will cause the "hypothetical capital" for CCPs to cover their exposure towards their Clearing Members ("CMs") to be far higher than what the CCPs need to cover their losses even in the worst of circumstances due to the risk insensitivity of CEM.

[3] Summary:

Capital Charge for DF contributions to be calculated by a measure of their historical drawdown, assuming, for each observation, that the two largest CMs default.

The calculation is with reference to:

- The CMs' current (not historical) positions.
- A chosen historical period, for example, the last five years.
- The CCP default management plan, in particular, the liquidation time assumption.

Calculation:

For each day in the chosen historical period, the CCP calculates:

- The margins and default fund contributions that each CM would have posted.
- The two CMs with the largest unfunded potential exposures, "the defaulting CMs".
- The losses for those two defaulting CMs over the period that starts with the following day and extends for the liquidation time, were those two CMs to have defaulted the following morning.
- With reference to the CCP waterfall, taking into account margins and default fund contributions the defaulting CMs would have posted, and any CCP contribution to the waterfall, calculate the drawdown, if any, on the surviving member default funds, as a percentage of those funds. If the drawdown exceeds the available default funds, calculate the drawdown percentage as 1 + 1.2x that excess percentage.

This calculation provides a distribution of default fund drawdown percentages. If the margining scheme is robust, it is expected that for normal market historical periods, many of the observations will be zero. Two

choices must be made: the historical period to use; and the summary statistic to apply to the drawdown percentage distribution.

[4] As we have demonstrated previously, CEM suggests that the hypothetical capital for a CCP clearing IRS is an order of magnitude higher than a risk sensitive calculation would be.

[5] This figure is not inflated due to sub-optimal use of trade compression. While recognising that trade compression is harder for IRS than it is for more standardised products such as CDS, a 2012 ISDA Study in found that through year-end 2011, participating institutions have eliminated $164 trillion of notional principal outstanding with $56 trillion compressed in 2011 alone. Much of the recent progress has been the result of collaboration between TriOptima and LCH.Clearnet Ltd.'s swap clearing service, SwapClear. The study estimated that without compression, the size of the IRS market would be approximately 30% larger. Refer: http://www2.isda.org/functional-areas/research/studies/ "Interest Rate Swaps Compression: A Progress Report"

In addition, it should always be recalled that gross notional figure does not take into account the substantial effect of netting.

[6] Note this would be larger if IRS market cleared by more than one CCP.

[7] EBA/DP/2012/1

[8] At the European Parliament ("EP"), MEP Rapporteur Karas issued a draft report with proposed amendments to the original Commission CRD4 proposal. CRD4 contains rules on CCP exposures reflecting BCBS 206. MEPs, within the ECON Committee, have now tabled further amendments to the draft report. One amendment relates to Article 484, but this is not yet approved by the EP. MEPs are expected to vote on the amendments at the end of April 2012 or early May in the ECON Committee, followed by a formal EP vote on the amended Karas report in June 2012.