



EBA Discussion Paper

on

Draft Regulatory Technical Standards

on the capital requirements for CCPs under

the draft Regulation on OTC derivatives, CCPs and Trade Repositories

(EBA/DP/2012/1)

London, 6 March 2012

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I. Responding to this Discussion Paper

The EBA invites comments on all matters in this paper and in particular on the specific questions stated in the boxes below (and in Annex 3 of this paper).

Comments are most helpful if they:

- indicate the specific question to which the comment relates;
- respond to the question stated;
- contain a clear rationale;
- provide evidence to support the view expressed;
- describe any alternatives the EBA should consider; and
- provide where possible data for a cost and benefit analysis.

Please send your comments to the EBA by e-mail to DP-2012-01@eba.europa.eu by **2 April 2012**, indicating the reference to "EBA/DP/2012/1" on the subject field. Please note that comments submitted after the deadline, or sent to another e-mail address will not be processed.

Publication of responses

All contributions received will be published at the EBA's website following the close of the consultation, unless you request otherwise. Please indicate clearly and prominently in your submission any part you do not wish to be publically disclosed. A standard confidentiality statement in an e-mail message will not be treated as a request for non-disclosure. A confidential response may be requested from us in accordance with the EBA's rules on public access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by the EBA's Board of Appeal and the European Ombudsman.

Data protection

Information on data protection can be found at www.eba.europa.eu under the heading 'Copyright & Disclaimer'.

Disclaimer

The views expressed in this discussion paper are preliminary and will not bind in any way the EBA in the future development of the draft Regulatory Technical Standards. They are aimed at eliciting discussion and gathering the stakeholders' opinion at an early stage of the process.

II. Executive Summary

Reasons for publication

Article 12 of the European Commission's (EC) proposals for a Regulation on over-the-counter (OTC) derivatives, central counterparties (CCPs) and trade repositories¹ (the draft Regulation) requires the EBA to draft regulatory technical standards (RTS) on the capital requirements that a CCP should meet. This discussion paper seeks stakeholders' views on this topic with the understanding that a political agreement among the EC, the European Parliament and the Council of the EU was reached at their so-called Trilogue meeting of 9 February 2012, although a final new text of the Regulation has not yet been made public.

The discussion paper expresses the EBA's preliminary views on the above topic and aims at eliciting discussion and gathering the stakeholders' opinions at an early stage of the process. The input from stakeholders will assist in the development of the RTS, to be drafted and submitted to the EC for endorsement in the form of a Commission Regulation, i.e. a legally binding instrument directly applicable in all member States of the European Union. The development of the draft RTS is also required to cover the analysis of the costs and benefits that those legal provisions will imply. Input in this respect and any supportive data will be highly appreciated and kept confidential where required. It would be particularly important to contribute information that helps assess the impact of the proposals on capital and the period necessary for CCPs to adapt their systems in order to be able to comply with the Regulation.

Contents

The considerations on capital requirements expressed in this paper are grounded on the international standards proposed by CPSS-IOSCO² and on Directives 2006/48/EC and 2006/49/EC of the European Parliament and of the Council, which together form the so-called 'Capital Requirements Directive' or CRD³. Also, coherently with the Regulation, the approach proposed by the EBA will result in capital requirements that are at least equal to the resulting from CPSS-IOSCO principles.

The EBA's preliminary view is that the capital of a CCP, including retained earnings and reserves, should be at all times at least equal to the higher of the following two amounts: on the one hand, the CCP's operational expenses during an appropriate time span for winding-down or restructuring its activities; and, on the other hand, the capital requirements for those risks that according to the Regulation must be covered by appropriate capital. In the EBA's preliminary view, risk exposures and capital requirements are calculated using approaches set out for banks by the CRD. Capital held under international risk-based capital standards should be included as appropriate to avoid double regulation.

¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0484:FIN:EN:PDF>

² CPSS-IOSCO Principles for Financial Market Infrastructures, issued for public consultation on 10 March 2011: <http://www.bis.org/press/p110310.htm>

³ Revisions to the CRD are currently being negotiated by the Council and the European Parliament. These are in the form of a package made up of one revised Capital Requirements Directive and a new Capital Requirements Regulation, colloquially referred to as 'CRD IV/CRR proposals'.

Next steps

As provided for by Regulation No 1093/2010 of the European Parliament and Council establishing the EBA, before submitting the draft RTS to the Commission, the EBA will conduct a public consultation and analyse the potential costs and benefits of the proposed standards. The consultation paper will include the proposed legal text of the provisions constituting the draft RTS, an explanation of the proposed measures and a cost-benefit analysis. The date of publication of such a consultation paper and the consultation period will depend on the date of publication of the final text of the Regulation in the Official Journal of the EU and on the deadline contained therein for the EBA to deliver the draft RTS to the EC.

Besides this discussion paper, other discussion papers address the technical standards that need to be drafted under the Regulation. Thus, on 16 February 2012 the European Securities and Markets Authority (ESMA) issued a discussion paper on the draft regulatory and implementing technical standards it is required to develop under the Regulation. The consultation period for this discussion paper will last until 16 March. This discussion paper is available on the ESMA website⁴.

Further, the European Supervisory Authorities ('ESAs'), i.e. the EBA, the ESMA and the European Insurance and Occupational Pensions Authority (EIOPA), are also expected to issue shortly a joint discussion paper on RTS they are required to draft jointly according to the Regulation. This discussion paper will cover issues related to risk mitigation techniques for OTC derivatives not cleared by a CCP⁵.

⁴ <http://www.esma.europa.eu/system/files/2012-95.pdf>

⁵ This joint discussion paper will be made available on the website of the three ESAs.

III. Background and rationale

Following the European Commission's (EC) legislative proposals for a Regulation on over-the-counter (OTC) derivatives, central counterparties (CCPs) and trade repositories (the Regulation) of 15 September 2010⁶, a political agreement was reached by the EC, the European Parliament and the Council of the EU, during their so-called 'trilogue' meeting of 9 February 2012. The discussion paper is based on that political agreement. The present discussion paper is based on that political agreement, in order to allow the EBA to more efficiently prepare its work on developing the TS.

The Regulation lays out provisions with the view to increasing the safety and transparency of the over-the-counter (OTC) derivatives markets. It introduces a legal obligation to clear OTC derivatives transactions through central counterparties (CCPs) and establishes organisational, conduct of business and prudential requirements for CCPs to ensure that these institutions are robustly risk-managed and financially sound irrespective of the financial instruments cleared.

The primary function of a CCP is to act as an intermediary between the counterparties to a bilateral trade, so that the parties' bilateral trade is replaced by each of them having a separate trade with the CCP. In this way, the CCP takes on the risk of the potential loss to which a party could be exposed if its counterpart were to default. Where one counterparty defaults, the CCP acts in the place of the defaulted counterparty and makes good its payment obligations. Therefore, a CCP allows market participants to trade without being exposed to the risk of each other's default.

To limit its credit exposures, the Regulation will require a CCP collect margin, maintain a pre-funded default fund and maintain dedicated own resources. These resources make up the 'default waterfall' of risk mitigants that a CCP uses to cover its losses upon the default of one of its clearing members. In covering its losses a CCP will use the margins posted by the defaulting clearing member first, the default fund contributions of the defaulting clearing member second, its dedicated own resources third and the default fund contributions of non-defaulting clearing members last. Under no circumstances will a CCP use margins posted by non-defaulting clearing members to cover its losses resulting from the default of another clearing member. The CCP's dedicated own resources cannot be used to meet the CCP's regulatory capital requirements.

Articles 39 to 41a of the Regulation prescribe the calculation of financial resources: margins, default fund and dedicated own resources. These articles also specify the requirements about the collection, maintenance and use of the collaterals. Under these Articles no additional capital is required to mitigate the CCP's credit exposures or the market risk of the collateral collected.

Additional capital is however required under Article 12(3) of the Regulation to mitigate, on the one hand against market risk, credit risk and counterparty credit risk arising from investment activities and other non-clearing activities; and, on the other hand, to mitigate against operational risk arising from all activities of a CCP (including non-clearing and clearing ones). Capital held to meet the CCP's regulatory capital requirement and the CCP's dedicated own resources are invested in cash and in financial instruments. Similarly collateral provided by clearing members in the form of

⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0484:FIN:EN:PDF>

cash is invested in financial instruments or deposited through highly secure arrangements with authorised financial institutions or central banks. Collateral provided by clearing members in the form of financial instruments is deposited with operators of securities settlement systems or through highly secure arrangements with authorised financial institutions. The introduction of these capital requirements will also ensure that the risks inherent in these activities (investment or others) are monitored and adequately capitalised.

Having identified these risks, the EBA contemplates that a CCP should hold capital, including retained earnings and reserves, that is at all times at least equal to the higher of the following two amounts: (i) its operational expenses during an appropriate time span for winding-down or restructuring its activities, and (ii) the sum of the capital requirements for the overall operational risk and for credit, counterparty and market risks stemming from “non-clearing activities” it carries out. The Regulation delegates powers to the Commission to adopt regulatory technical standards (RTS) specifying these requirements; the EBA is expected to develop the draft RTS, in close cooperation with the ESCB and consultation with the ESMA, and submit it them to the Commission by 30 September 2012. This discussion paper is about these draft RTS.

In developing the proposals explained in the discussion paper, relevant parts of the CPSS-IOSCO Principles for Financial Markets Infrastructure and of the Capital Requirements Directive (Directive 2006/49/EC) have been considered. Moreover preliminary view of ESMA staff has been sought and taken into account.

IV. Discussion

1 Introduction

1. Pursuant to the Regulation, standard OTC derivative contracts shall be cleared through central counterparties (CCPs), in order to reduce counterparty credit risk associated with these contracts. As more counterparty risk will then be concentrated within CCPs, the latter will become subject to more stringent organisational and prudential requirements. Harmonised capital requirements for CCPs are therefore an essential part of this new legal framework, which is expected to be developed by the EBA in the form of draft TS.
2. Article 12 of the Regulation states that capital including retained earnings and reserves of a CCP must at all times be sufficient to ensure (i) an orderly winding-down or restructuring of the activities over an appropriate time span and (ii) that the CCP is adequately protected against credit, counterparty, market, operational, legal and business risks, not already covered by specific financial resources as referred to in Articles 39 to 41a of the Regulation.
3. Capital and reserves are defined in Article 2(18) and (19) of the Regulation as including all amounts, regardless of their actual designations, which, in accordance with the legal structure of the institution concerned, are regarded under national law as equity capital subscribed by the shareholders or other proprietors. Such capital must be paid up, fully absorb losses in going concern situations and in the event of bankruptcy or liquidation rank after all other claims.
4. Since the financial resources described in Articles 39 to 41a of the Regulation are intended to cover the counterparty risk stemming from clearing activities, the minimum capital requirements of Article 12 of the Regulation should ensure that a CCP is adequately capitalised against the risk stemming from the other activities it carries out (its "non-clearing activities" including investment activities), and the overall operational risk.
5. The EBA considers that, in order to ensure that the whole amount of what qualifies as capital will be available when required some items should be deducted from the capital. The following deductions are explicitly stated by the Regulation: any of its pre-funded financial resources referred to in Articles 41(1) and 42(3a) and its resources which are not invested in accordance with Article 44(1). In addition to these, the EBA is contemplating that a CCP's contributions to any default fund of another CCP should also be deducted.
6. The EBA contemplates that a CCP should hold capital, including retained earnings and reserves, that is at all times at least equal to the higher of the following two amounts:
 - its operational expenses during an appropriate time span for winding-down or restructuring its activities, and
 - the sum of the capital requirements for the overall operational risk and for credit, counterparty and market risks stemming from "non-clearing activities" it carries out.

a. CPSS-IOSCO Principles for Financial Markets Infrastructure (PFMIs)

7. In developing its proposal, the EBA has considered the draft CPSS-IOSCO Principles for Financial Markets Infrastructure (PFMIs). According to Principle 15 in the CPSS-IOSCO consultation paper, a CCP should hold sufficiently liquid assets funded by equity to cover potential general business losses; this amount should be sufficient to ensure at least an orderly wind-down or reorganisation of the CCP's critical operations and services over an appropriate time period. Principle 15 of the PFMIs defines general business risk as the potential impairment of a CCP's financial position as a business concern resulting in losses charged against capital. A CCP should identify and assess business risk by considering a combination of tools such as risk management, internal control assessments, scenario analysis and sensitivity analysis.
8. Further capital held for potential general business losses should be additional to resources held to cover participant defaults or other risks covered under the PFMIs. Capital held under international risk-based capital standards should be included as appropriate to avoid double regulation. As a minimum, CCPs should hold equity capital at normal times, equal to [six, nine, or twelve] months of expenses (yet to be defined by the CPSS-IOSCO). The appropriate level of equity capital to be held by a CCP for an orderly wind-down or reorganisation will differ based on the length of time required to achieve this. In order to estimate the amount of capital it would need during the considered time horizon, a CCP should regularly analyse its cash flows and operating expenses under a variety of adverse business scenarios. This analysis should be performed regularly, as well as when a material change to the assumptions occurs.
9. A CCP's equity capital should also reflect a strong cash, cash-equivalent, or securities position to allow it to meet its current and projected operating expenses under a range of scenarios.
10. The Regulation goes beyond the CPSS-IOSCO Principles as it states that CCPs' exposure to risks not covered by specific financial resources should be also considered in the setting of minimum capital requirements. In particular, this could be the case when the amount of capital needed to cover operational expenses for winding-down or restructuring is not sufficient to protect CCPs from the operational, legal and business risks stemming from its activities and credit, counterparty, market risk stemming from "non-clearing activities". Coherently with the Regulation, the approach proposed by the EBA will result in capital requirements that are at least equal to the resulting from CPSS-IOSCO principles.

Q1. Do you support this approach to capital requirements?

Q2. Do you consider there to be any alternative approach which is more appropriate that would be consistent with Article 12 of the Regulation?

2 Operational expenses for winding-down or restructuring

11. It is the EBA's preliminary view that the operational expenses for winding down or restructuring should be calculated as a CCP's ongoing annual expenses divided by

12 and multiplied by the estimated number of months necessary to ensure winding-down or restructuring of its activities. The EBA considers that a CCP should estimate the number of months necessary to ensure winding-down or restructuring of its activities taking into account the complexity of its business. In line with the recommendations provided by CPSS-IOSCO the time period used for the calculation of the operational expenses for winding-down or restructuring should be the longer of the two: (i) internally estimated time period; and (ii) [6-12] months.

12. The EBA further views that, in order to calculate the ongoing operational expenses, a CCP should also consider projected or expected events, such as new business lines or activities the CCP is about to undertake. Nevertheless, in the EBA's view, the operational expenses should be not lower than those incurred in the most recent period (to be defined).

13. The EBA may also consider providing in the RTS a minimum list of items that should necessarily be taken into account when calculating operational expenses. An example of a list that could be provided would be the International Accounting Standard (IAS) 7 of the International Financial Reporting Standards (IFRS), which stipulates minimum standards for which activities should be considered as operating activities; these are described in broad terms so that a variety of activities are captured (see Annex 1). All listed companies in the European Union who have to prepare consolidated accounts comply with the IFRS, so this is a minimum standard which could apply to all of the CCPs.

Questions particularly addressed to CCPs

Q3. Which criteria do you take into account for estimating the appropriate time span for orderly winding down or restructuring of the CCP's activities?

Q4. What is your estimation for the number of months necessary to ensure an orderly winding-down or restructuring of the CCP's activities?

Q5. Do you think that a minimum list of items to be included in the operational expenses could be useful, such as the IAS 7?

3 Capital requirements for operational risk

14. CCPs face significant operational risk, which is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events; the legal risk is considered included in the operational risk. Pursuant to the Regulation, the operational risk should be appropriately capitalised.

15. To measure what is the correct level of capital for operational risk it is important to assess the risks that a CCP is subject to. A CCP's primary function is to carry out clearing activities, which also involve the investment of collateral that is received from counterparties and the payment and settlement of monies. Consequently a CCP is subject to operational risk arising from its payment and settlement and asset management activities and should hold capital against such operational risk accordingly.

16. In order to calculate capital requirements for operational risk, the EBA is considering the methods envisaged for banks by the Capital Requirements Directive.
17. The Capital Requirements Directive considers three different approaches for operational risk measurement: Basic Indicator Approach, Standardized Approach and Advanced Measurement Approach.
18. At the current stage, the EBA does not rule out any of the approaches that are available in the banking capital framework. In this regard, the EBA considers that the full range of operational risk approaches should potentially be available for CCPs.
19. The **Basic Indicator Approach** is based on the so called "relevant indicator" which is the sum of the following elements, each with its positive or negative sign:
- Interest receivable and similar income
 - Interest payable and similar charges
 - Income from shares and other variable/fixed-yield securities
 - Commissions/fees receivable
 - Commissions/fees payable
 - Net profit or net loss on financial operations
 - Other operating income
20. The relevant indicator is calculated before the deduction of any provisions and operating expenses.
21. Under the Basic Indicator Approach, the capital requirement for operational risk is equal to 15% of the average over three years of the relevant indicator. However, the EBA is still considering the appropriateness of the "relevant indicator" as well as increasing the level of the multiplier.
22. The EBA is also considering the possibility of allowing CCPs the option of using the **Standardised Approach** which would involve dividing the CCPs' activities into defined business lines. Adjusting the Standardised Approach for CCPs so that it just covers the business lines that a CCP participates in or alternatively into different types of products the CCP clears (e.g. OTC vs. Exchange Traded Products) is also a viable option as it will make for a more tailored and meaningful risk output. In that case for each business line or type of product, a different and appropriate multiplier could be established. This would involve adjusting the current Standardised Approach so that the only business lines are payment & settlement and asset management. In this respect, the EBA is also considering "clearing activities" and "reinvestment activities" as possible business lines that could be used in a Standardised Approach.
23. For both approaches the EBA is considering the possibility of using a different indicator or a different multiplier [e.g. 15 - 18%] than the one used in the banking capital framework. Given the fact that, under the Standardised Approach, the main activity of CPPs is payment & settlement which is assigned a 18% multiplier, the EBA considers applying only the Basic Indicator Approach for the calculation of capital requirements for operational risk equal to 18% of the average of the relevant indicator over three years.

24. The EBA also considers that, subject to strict organizational and quantitative standards and to the permission of the competent authority, a CCP could be allowed to use the **Advanced Measurement Approach**, i.e. an internal model. This approach also requires the division of risks into business lines and additionally into product types so it is suggested that as with the Standardised Approach, the business lines would, in that case, have to be adjusted to those applicable to a CCP. Allowing CCPs to apply an internal model requires that the internal operational risk measurement system of the CCP is closely integrated in its day to day risk management process. This requires CCPs to improve the risk management through application of the use of internal data, external data, scenario analysis, and factors reflecting the business environment and internal control systems. However, the EBA does not believe that CCPs will be in a position to meet all minimum requirements for the application of the AMA by 2012, especially the respective data requirements. Furthermore, the EBA considers that the application of the AMA may be subject to a backstop regime, e.g. by applying a floor to the capital requirements for operational risk.

Questions particularly addressed to CCPs:

Q6. How do you currently measure and capitalise for operational risk?

Q7. Do you think that the banking framework is the most appropriate method for calculating a CCP's capital requirements for operational risk? If not, which approach would be more suitable for a CCP?

Q8. What would be the cost of employing the basic indicator approach set out for banks for the calculation of your capital requirements for operational risk?

Q9. Do you think that the Basic Indicator Approach set out for banks is appropriate for CCPs?

Q10. In your view, which alternative indicator should the EBA consider for the Basic Indicator Approach? (Please elaborate why such indicator would be more appropriate for CCPs)

Q11. In your view, with regard to the Standardised Approach, which different lines of business or type of products can be relevant for CCPs' operational risk?

Q12. Do you think CCPs should be allowed to calculate the capital requirements for operational risk with an internal model, as in the advanced measurement approach?

Q13. Which other approaches should the EBA consider for operational risk measurement?

4 Capital requirements for credit and market risks stemming from "non-clearing activities"

25. A CCP can face various types of credit risk. First of all it faces credit risk when it performs clearing activities: it is the risk that a clearing member will be unable to

meet fully its financial obligations when due. In the Regulation's framework this risk is covered by the specific financial resources as listed in Articles 39 to 41 of the Regulation, which include margins, default fund and CCPs' dedicated resources.

26. In addition to the above, a CCP faces credit risk, as well as counterparty and market risk even when it performs "non-clearing activities", in particular investment operations. Pursuant to the Regulation, credit, counterparty credit and market risk stemming from "non-clearing activities" should be covered by additional capital.
27. The EBA considers that such risk exposures should be calculated using some of the approaches applicable to banks by the CRD. An overview of the banking regime for calculating capital requirements for credit, counterparty credit and market risk is provided in Annex 2.
28. Investment activities expose the CCPs at least to the same kind of credit risks that is typically faced by credit institutions. As the risk does not depend on the nature of the institutions but on the activities performed, it seems appropriate to take as a basis the prudential framework for banks, but to adapt it to take into account the concentration of risks stemming from derivatives that CCPs are exposed to.

Questions particularly addressed to CCPs:

Q14. How do you currently measure and capitalise for credit, counterparty credit and market risk stemming from "non-clearing activities"?

Q15. Do you think that the banking framework is the most appropriate method of calculating a CCP's capital requirements for credit, counterparty credit and market risk stemming from "non-clearing activities"? If not, which method would be more suitable for a CCP?

29. In the EBA's view, the CCPs should calculate their risk-weighted assets according to the Standardised Approach for credit risk. According to such method, the exposure value of an asset (i.e. its risk-weighted value) is equal to its accounting value and the specific risk weight associated. The risk weights range from 0% for to 150%. Capital requirements for credit risks would be equal to the [8%] of the risk-weighted assets.
30. The EBA also considers that market risk, i.e. risk related to movements in markets factors, such as interest rates, should be calculated using the Standardised Approach for market risk set out for banks by the Capital Requirements Directive. According to such method, capital requirements for market risk are calculated using position risk adjustment factors applied to market values of the positions held by the CCP.
31. Further, the EBA views that a CCP could be allowed, after approval by the competent authorities, to use internal models for calculation of capital requirements for credit, counterparty credit, and market risks stemming from "non-clearing activities".

Q16. What would be the cost of employing Standardised Approach methods for the calculation of your capital requirements for credit, counterparty credit⁷ and market risk stemming from “non-clearing activities”?

Q17. In your view, are the Standardised Approach methods appropriate for the calculation of credit, counterparty credit and market risk a CCP faces stemming from “non-clearing activities”?

Q18. Do you think that CCPs, which concentrate risks stemming from derivatives, should be allowed to calculate their capital requirements for credit, counterparty credit and market risk using internal models?

Q19. In your view, which assets held by a CCP should be better capitalised with a market risk treatment?

Q20. In your view, which other approaches should the EBA consider for credit, counterparty credit and market risk measurement?

5 Other risks, monitoring and reporting

32.The EBA considers that a CCP should have procedures in place to identify all sources of risks that may impact on its on-going functions and should consider the likelihood of potential adverse effects on its revenues, expenses and level of capital. In particular, a CCP should consider business risk and take sufficient actions to reduce it.

33.The EBA considers that a CCP should monitor the compliance with the capital requirements on an ongoing basis and should report it to the relevant competent authority at least on quarterly basis. The competent authority may apply additional measures to a CCP that does not hold sufficient capital to ensure a sound coverage of risks. In particular the competent authority should be enabled to require a CCP to hold additional capital in case it does not manage all its risks.

6 Notification threshold

34.The EBA is considering the possibility of establishing a notification threshold equal to [105%-110%] of the capital requirements. In that case, when the level of capital falls below such threshold, a CCP should immediately inform the competent authority and explain which actions it intends to take to ensure compliance with the capital requirements. The competent authority could apply restrictive measures until the capital is fully restored.

35.In order to allow a CCP to be better prepared for dealing with the situation of capital shortage, the EBA contemplates that a CCP should develop a general capital plan, specifying the measures it intends to take when the level of capital falls below the notification threshold.

⁷ For counterparty credit risk the standardised methods for exposure measurement are the Original Exposure Method, the Mark-To-Market Method or the Standardised Method (for OTC-Derivatives), and the Financial Collateral Simple Method or the Financial Collateral Comprehensive Method (for Securities financing transactions).

Q21. What is your view on the notification threshold? At which level should it be set?

Q22. In your view, in which case should restriction measures be taken by the competent authority once the notification threshold is breached?

7 Cost- benefit Analysis

36.As per Article 10(1) third subparagraph of the EBA regulation, any draft Technical Standards developed by the EBA – when submitted to the European Commission for adoption – will have to be accompanied by an analysis of the potential related costs and benefits unless such analysis is disproportionate in relation to the scope and impact of the draft RTS concerned or in relation to the particular urgency of the matter. The cost – benefit analysis aims to provide the reader with an overview of findings as regards the problem identification, the options identified for removing the problem and their potential impacts. Accordingly the EBA will carry out a cost-benefit analysis and impact assessment regarding the RTS on CCPs.

37.To assist in the analysis, the EBA seeks stakeholders' assistance in identifying these costs and benefits of the various regulatory options. Please provide the following data, where possible.

Q23. Please provide the sum of the operational expenses during an appropriate time span for winding down or restructuring a CCP's activities based on the approaches specified below.

Method	2007	2008	2009	2010	2011
Based on list of operation expenses currently used by CCP and on estimated number of months by the CCP (according to the reply to Question nr 4)					
Based on list of operation expenses currently used by CPP and six months time span					
Based on the minimum list of IAS 7 operational expenses and six months time span					
Based on the minimum list of IAS 7 operational expenses and including projected or expected events and six months time span					

Q24. Please provide the capital requirements for operational risk.

Method	2007	2008	2009	2010	2011
Currently used by the CCP (according to the reply to Question No. 6)					
Currently used by the CCP, adjusted according to the definition of operational risk described in this DP ⁸					
Basic Indicator Approach (assuming 18% multiplier)					

Q25. Please provide the capital requirements for credit risk stemming from "non-clearing activities".

Method	2007	2008	2009	2010	2011
Currently used by CCP (according to the reply to Question No. 15)					
Standardised Approach, assuming 8% of risk-weighted assets					

Q26. Please provide the capital requirements for counterparty credit risk stemming from "non-clearing activities".

a) for financial derivatives

Method	2007	2008	2009	2010	2011
Currently used by CCP (according to the reply to Question No. 14)					
Original Exposure Method, assuming 8% of risk-weighted assets					
Mark to Market Method, assuming the 8% of risk-weighted assets					
Standardised Method, assuming 8% of risk-weighted assets					

b) for repos/reverse repos, securities lending and borrowing

Method	2007	2008	2009	2010	2011
Currently used by the CCP (according to the reply to Question No. 14)					
Financial Collateral Simple Method, assuming 8% of risk-weighted assets					
Financial Collateral Comprehensive Method, assuming 8% of risk-weighted assets					

⁸ 'Operational risk' means the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, and includes legal risk.

Q27. Please provide the capital requirements for market risk stemming from “non-clearing activities”.

Method	2007	2008	2009	2010	2011
Currently used by CCP (according to the reply to Question No. 14)					
Standardised Approach					

Annex 1- Operating Activities captured in IAS 7

- 13. The amount of the cash flows from operating activities is a key indicator of the extent to which these activities have generated sufficient liquid funds to repay loans, to maintain the operating capability of the business, pay dividends and make new investments without resort to external sources of funding. The information about the specific components of the cash flows from operating activities is useful, along with other information to predict future cash flows of such activities.*
- 14. Cash flows from operating activities derive primarily from the transactions that are the main source of revenue for the company. So, come from transactions and other events relevant to the determination of the net gains or losses. Examples of cash flows from operating activities are as follows:*
- (a) cash receipts from sales of goods and services;*
 - (b) cash receipts from royalties, fees, commissions and other revenue;*
 - (c) payments to suppliers for the provision of goods and services;*
 - (d) payments to employees and account for them;*
 - (e) cash receipts and payments of insurance premium and benefits, annuities and other liabilities arising from policies underwritten;*
 - (f) payments or refunds of income taxes, unless they can specifically classified within the activities of investment or financing, and*
 - (g) cash receipts and payments under contracts that are taken for brokering or to negotiate with them. Certain transactions, such as the sale of an item of property, plant and equipment can result in a gain or loss will be included in net profit. However, the flows arising from these transactions will be included among investment activities.*
- 15. A company can have titles or loans for reasons of brokering or other usual commercial agreements, in which case these investments is considered similar to the stocks purchased specifically for resale. Therefore, the cash flows of these operations are classified as coming from operating activities. In a similar way, cash advances and loans made by financial institutions are usually classified among the activities operating since they are associated with activities that constitute the main source of revenue for the company.'*

Annex 2- Overview of the banking capital regime

The banking capital regime requires a financial institution to hold capital in accordance with the sum of its risks. This is calculated in accordance with the current version of the CRD, known as CRD III⁹, which is aligned to agreed international standards¹⁰. The CRD/ CRR capital standards regime is comprised of a three pillar structure with Pillar 1 creating minimum capital requirements and a formulaic approach for credit, counterparty credit, market and operational risk although financial institutions may also model their risk if they have been given permission by the relevant authority.

Pillar 2 captures any risks that are not adequately provided for under Pillar 1 and incorporates stress testing to establish the level of capital needed to counter these risks in stressed conditions. This stage also involves supervisory review. Pillar 3 requires firms to disclose their risk management processes, how well their Pillar 1 risks are mitigated against and whether their capital composition meets the required standards, to the market.

I. Credit Risk

It is the risk of the loss of principal and interest from a borrower's failure to repay a loan or otherwise meet a contractual obligation. Credit risk capital requirements apply to all non-tradable exposures (e.g. loans and guarantees). Credit risk capital is driven by the determination of the expected exposure at default (EAD), the probability of default of the counterparty (RW) and the minimum capital requirement prescribed by the CRD/CRR of 8%. The following equation represents the capital calculation:

$$\text{Credit risk capital requirement} = \text{EAD} \times \text{RW} \times 8\%$$

Credit risk capital can be calculated using one of three different methods, with the default being the Standardised Method, and the other two being applicable only following permission by competent authorities:

1. the Standardised Method;
2. the Foundation Internal Ratings Based approach (FIRB); or
3. the Advanced Internal Ratings Based approach (AIRB).

Each approach varies in the level of complexity in application and as a result the risk sensitivity of the results.

⁹This is currently being developed into the Capital Requirement Regulation and Directive IV <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0452:FIN:EN:PDF>. See footnote 3 above.

¹²Basel II - <http://www.bis.org/publ/bcbs128.pdf>; Basel III - <http://www.bis.org/publ/bcbs189.pdf> .

Table 1- Methods for calculating credit risk capital requirements

Methods	1. Standardised Approach	2. Foundation Internal rating based approach (FIRB)	3. Advanced Internal rating based approach (AIRB)
Overview of method	This is the simplest approach which relies on the determination of the exposure at default which is adjusted depending on the probability of default. The probability of default is based on standard prescribed risk weights to calculate the capital requirements.	This is a more risk sensitive approach; the risk weights are determined using model based solutions by the firm. Permission from the relevant authority is required to use this approach.	This is the most risk sensitive approach amongst the three; the risk weights are determined using model based solutions by the firm. Permission from the relevant authority is required to use this approach
EAD calculation - the expected exposure at default. All exposures are classified into counterparty type (e.g. sovereigns, financial institutions, corporate, etc.).	The borrowed amount (e.g. the amount borrowed and withdrawn by the borrower under a loan, the notional value of a debt instrument invested into) amount plus a prescribed conversion factor multiplied by undrawn (the amount available to a borrower, but not withdrawn) facility.	Drawn amount plus the prescribed conversion factor multiplied by undrawn facility.	Drawn amount plus an estimated conversion factor multiplied by undrawn facility. Conversion factor estimates are derived from a firm's own model.
Risk weighted asset calculation (RWA) – the exposure value adjusted according to its probability of default.	A risk weight is allocated to the exposure classes based on their credit quality. The EAD figures are multiplied by these standard risk weights to obtain the RWA figure.	An internal model is used to calculate probability of default (PD) – the likelihood a borrower will default. A risk weight is calculated using a supervisory prescribed formula, where the parameters have been estimated by the firm... EAD is multiplied by above	A risk weight is calculated using a firm's own model, where the parameters have been estimated by the firm. EAD is multiplied by above RW estimates to calculate RWA.

		RW estimates to calculate RWA.	
Prescribed minimum capital level	The risk weighted exposure amounts are then multiplied by 8% which is the prescribed minimum capital level.		

II. Counterparty Credit Risk

It is the risk that the counterparty to a financial contract will default prior to the expiration of the contract and will not make the contractual payments. The counterparty credit risk (CCR) exposure is determined by the contract's replacement cost at the time of default.

CCR capital requirements are required to be held for financial derivatives, securities lending/borrowing, repo, reverse repo transactions (SFTs) and long settlement transactions. Similar to credit risk capital, CCR is driven by the determination of the potential exposure at default (EAD), the probability of default of the counterparty (RW) and the minimum capital requirement prescribed by the CRD/CRR of 8%. The following equation represents the capital calculation:

Counterparty credit risk capital requirement = EAD x RW x 8%

CCR capital can be calculated using the following methods:

For financial derivatives:

1. Original Exposure Method (OEM)¹¹
2. MtM Method (or Current Exposure Method; CEM);
3. Standardised Method (SM); or
4. Internal Model Method (IMM).

For repos/reverse repos, securities lending and borrowing:

5. Financial Collateral Simple Method;
6. Financial Collateral Comprehensive Method; or
7. Internal Model Method (IMM).

Each approach varies in the level of complexity in application and as a result the risk sensitivity of the results.

¹¹ This method is only applicable to small trading book business

Table 2- Methods for calculating counterparty credit risk

Methods	1. (OEM) Original Exposure Method	2. MtM Method or Current Exposure Method	3. Standardised Method	4. Internal Model Method	5. Financial Collateral Simple Method	6. Financial Collateral Comprehensive Method
Overview of method	Under this method, the contract principal is adjusted by a conversion factor which varies depending on the nature of the instrument and its maturity.	This is the simplest approach for calculating financial derivative exposures. The capital requirements are driven by the market values of the derivatives and their potential future exposure.	This is a model-based approach for calculating financial derivative exposures which is more risk sensitive than CEM.	This is a model-based approach which is the most risk sensitive approach for financial derivatives, repos/reverse repos and securities lending and borrowing transactions. Permission from the relevant authority is required to use this approach	This the simplest method used to calculate capital requirements for repos/reverse repos and securities lending and borrowing transactions that are not held to trade.	This is a simple method of calculating a more risk sensitive method for calculating capital requirements for repos/reverse repos and securities lending and borrowing transactions.
EAD calculation - the expected exposure at default.	The exposure value is the notional amount of each instrument multiplied by the percentages	EAD = MtM value of position + an add-on to reflect the risk of potential future exposure. These add-ons are fixed percentages varying according to product type and maturity.	EAD = $\beta \times \max$ [net current value of the portfolio or the risk position from the transaction minus the risk position of the collateral, or the relevant CCR multiplier for the hedging set]	EAD = Effective Expected Potential Exposure $\times \alpha$ (1.4 unless firm applies for it to be lower, floored at 1.2)	Under this method the risk weight of the collateral is substituted for the risk weight of the counterparty For the collateral to be recognised for substitution purposes it must be pledged	Volatility adjustments are applied to the exposure and collateral to reflect the market volatility of the financial instruments The value of the exposure is reduced by the value of the eligible collateral taken.
Risk weighted asset calculation	The EAD should then be multiplied by a RW which should be calculated according to one of the methods in Table 1.					The EAD should then be multiplied by a RW

n (RWA) – the exposure value adjusted according to its probability of default.			which should be calculated according to one of the methods in Table 1
Capital requirements	The risk weighted exposure amounts are then multiplied by 8% which is the prescribed minimum capital level.		

III. Credit Risk Mitigation

Credit Risk Mitigation (CRM) can also be taken into account to reduce Pillar 1 credit risk and CCR. CRM comes in several forms as detailed below, but under both the credit risk and CCR regimes CRM is a form of security given by the borrower to the lender to lessen the lender’s risk, thus reducing the borrower’s interest rate or repayment value. Across the two regimes the CRM received reduces the exposure figure and by extension the EAD (and/or the LGD), which carries through to reduce the capital requirement. CRM comes in the following forms and has the following effect:

Table 3- Credit risk mitigation forms

Funded		Unfunded	
Type	Effect	Type	Effect
Netting – legal opinion saying netting will work and systems are adequate	Net on-balance sheet positions	Guarantee – contracted arrangements must provide adequate protection	Substitute risk weight of guarantor instead of exposure risk weight
Collateral – the more liquid and robust in value the collateral, the greater the reduction in capital requirements	Substitute risk weight of collateral for covered exposure		

IV. Operational risk

It is the risk that a firm is exposed to when operating as a business. Essentially it includes risks resulting from breakdowns in internal procedures, people and systems.

Operational risk capital is held against events, systems and processes, and individuals that could cause losses. Capital can be calculated using the following methods:

1. the Basic Indicator Approach;
2. the Standardised Method (SM); or

3. the Advanced Measurement Approach (AMA).

Table 4 – Methods for calculating operational risk capital

Methods	1. Basic Indicator Approach	2. Standardised method	3. Advanced Measurement Approach (AMA)
Overview of method	This is the simplest approach.	This is a more risk sensitive approach.	This is the most risk sensitive model based approach. Permission from the relevant authority is required to use this approach.
Capital requirements	<p>EAD is equal to a firm's net interest income + net non-interest income averaged over three years.</p> <p>If for any given observation, the sum of a firm's net interest income and net non-interest income is negative or equal to zero, this figure must be excluded from both the numerator and denominator when calculating the three year average. The relevant indicator must be calculated as the sum of the positive figures divided by the number of positive figures.</p>	<p>The capital requirement is calculated as the three-year average of the yearly summations of the capital requirements across prescribed business lines. In any given year, negative capital requirements (resulting from negative gross income) in any business line may offset positive capital requirements in other business lines without limit. However, where the aggregate of the capital requirements across all business lines within a given year is negative, the input to the numerator for that year must be zero</p>	<p>The capital requirement is calculated using an internal model approach which uses loss distribution or a scenario based distribution or a combination of both.</p>

V. Market risk

It is the day-to-day potential for an investor to experience losses from fluctuations in securities prices. Capital is required for all positions held with trading intent, all gold positions, foreign currency positions and all commodities. Market risk capital requirements are calculated using one of the following three methods:

1. Standardised approach;
2. CAD 1; or
3. CAD 2 (Value at risk).

Table 5- Methods for calculating market risk capital requirements

Methods	1. Standardised Approach	2. CAD 1	3. CAD 2 (Value at risk)
Overview of method	This is the simplest approach of the approaches and uses position risk adjustment factors applied to market values of positions. Typically there is hedging recognition for offsetting positions in identical instruments only.	This method is only available for options and is more risk sensitive than the standardised approach. It recognises hedges to some extent.	This is the most risk sensitive approach and fully recognises hedges based on firms' own estimates of correlations between their positions. Permission from the relevant authority is required to use this approach.
Adjusted exposure calculation	Derive positions based on their market value.	'Scenario matrices' of specified shocks to e.g. underlying spot price and volatility are constructed calculating the change in option price for each shock. Hedges in the higher order option risks ('gamma' and 'vega') can be recognised in this way.	An internal model is used to generate the distribution of possible losses for the portfolio over a 10-day horizon. For positions with credit risk a second model is required to be developed to model the risk of loss due to default and migration over a 1 year horizon.
Capital calculation	Apply percentages known as position risk adjustments to derived positions.	There is no risk weighting but the worst case scenario will be taken from the scenario matrix.	The 99% likely worst loss over a 10 day period is taken from the internal model and multiplied by (at least) 3 to calculate a capital requirement. This model is run twice, once with input assumptions based on current market conditions and once with stressed inputs, both results are aggregated. For credit risky positions the 99.9% likely worst loss over a one year period is also held as an additional capital requirement.

Annex 3- Summary of questions

- Q1. Do you support this approach to capital requirements?**
- Q2. Do you consider there to be any alternative approach which is more appropriate that would be consistent with Article 12 of the Regulation?**
- Q3. Which criteria do you take into account for estimating the appropriate time span for orderly winding down or restructuring of the CCP's activities?**
- Q4. What is your estimation for the number of months necessary to ensure an orderly winding-down or restructuring of the CCP's activities?**
- Q5. Do you think that a minimum list of items to be included in the operational expenses could be useful, such as the IAS 7?**
- Q6. How do you currently measure and capitalise for operational risk?**
- Q7. Do you think that the banking framework is the most appropriate method for calculating a CCP's capital requirements for operational risk? If not, which approach would be more suitable for a CCP?**
- Q8. What would be the cost of employing the basic indicator approach set out for banks for the calculation of your capital requirements for operational risk?**
- Q9. Do you think that the Basic Indicator Approach set out for banks is appropriate for CCPs?**
- Q10. In your view, which alternative indicator should the EBA consider for the Basic Indicator Approach? (Please elaborate why such indicator would be more appropriate for CCPs)**
- Q11. In your view, with regard to the Standardised Approach, which different lines of business or type of products can be relevant for CCPs' operational risk?**
- Q12. Do you think CCPs should be allowed to calculate the capital requirements for operational risk with an internal model, as in the advanced measurement approach?**
- Q13. Which other approaches should the EBA consider for operational risk measurement?**
- Q14. How do you currently measure and capitalise for credit, counterparty credit and market risk stemming from "non-clearing activities"?**
- Q15. Do you think that the banking framework is the most appropriate method of calculating a CCP's capital requirements for credit, counterparty credit and market risk stemming from "non-clearing activities"? If not, which method would be more suitable for a CCP?**

- Q16. What would be the cost of employing Standardised Approach methods for the calculation of your capital requirements for credit, counterparty credit¹² and market risk stemming from “non-clearing activities”?**
- Q17. In your view, are the Standardised Approach methods appropriate for the calculation of credit, counterparty credit and market risk a CCP faces stemming from “non-clearing activities”?**
- Q18. Do you think that CCPs, which concentrate risks stemming from derivatives, should be allowed to calculate their capital requirements for credit, counterparty credit and market risk using internal models?**
- Q19. In your view, which assets held by a CCP should be better capitalised with a market risk treatment?**
- Q20. In your view, which other approaches should the EBA consider for credit, counterparty credit and market risk measurement?**
- Q21. What is your view on the notification threshold? At which level should it be set?**
- Q22. In your view, in which case should restriction measures be taken by the competent authority once the notification threshold is breached?**
- Q23. Please provide the sum of the operational expenses during an appropriate time span for winding down or restructuring a CCP’s activities based on the approaches specified below.**
- Q24. Please provide the capital requirements for operational risk.**
- Q25. Please provide the capital requirements for credit risk stemming from “non-clearing activities”.**
- Q26. Please provide the capital requirements for counterparty credit risk stemming from “non-clearing activities”.**
- Q27. Please provide the capital requirements for market risk stemming from “non-clearing activities”.**

¹² For counterparty credit risk the standardised methods for exposure measurement are the Original Exposure Method, the Mark-To-Market Method or the Standardised Method (for OTC-Derivatives), and the Financial Collateral Simple Method or the Financial Collateral Comprehensive Method (for Securities financing transactions).