



Supplementary Risk Recommendations

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Introduction

In addition to the ESCB-CESR Standards for Central Counterparties, this document defines additional risk-focussed recommendations for CCPs. EACH is of the opinion that these recommendations are of added value and complementary to other public and private sector initiatives in maintaining and improving safety and soundness in clearing. The aim of these recommendations is to further limit and manage systemic risk and to enhance the safety, soundness and efficiency of CCPs' operations.

1. Monitoring of Concentration Risk

ESCB-CESR Recommendation 3 'Measurement and Management of Credit Exposures', point 2, states that *"A CCP thus should recalculate its exposures to its participants frequently, based on timely information on market prices and on the size and concentration of positions, to ensure that its estimates of those exposures are accurate"*.

ESCB-CESR Recommendation 5 'Other Risk Controls', Key Issue 1, states that *"Stress tests to check the adequacy of resources in the event of a default in extreme market conditions should be performed monthly, or more frequently when markets are unusually volatile, become less liquid, or when the size or concentration of positions held by a CCP's participants increases significantly"*.

As mentioned in the first statement above, the concentration of positions is a fundamental element in establishing appropriate margin levels. If a member is holding a concentrated position in a certain contract then it can have an impact on the holding period that is assumed within the margin algorithm. Therefore, it is recommended that CCPs monitor the position concentrations for each of their members to ascertain whether any of the positions are of a size that would challenge the assumed holding period if that member were to default and the CCP had to close-out their position.

In assessing the positions, the overall size of the position in each contract should be assessed against the average volume or turnover over the assumed holding period in the market for that contract. For derivative contracts, as an estimated measure, the net delta per contract could be used to compare to the market volume. If a member's position in a contract is considered to be large in relation to the average volume over the holding period, then the CCP may wish to consider calling additional margin from the member to cover the increased risk of closing out the concentrated position.

Key Questions:

- Does the CCP have procedures to assess the concentration of members' positions? On a daily basis?
- Does the CCP have the ability to call additional margin from the member if a concentrated position is identified?
- Does the CCP have limits and procedures in place by which to identify and act upon concentrated positions?

2. Member Risk Assessment Review

ESCB-CESR Recommendation 2 'Participation Requirements', point 6 states that "A CCP should have procedures and allocate sufficient resources for effective monitoring of compliance with participation requirements on an ongoing basis. The requirement is for a CCP to monitor compliance with its participation requirements and should not be interpreted as mandating a regulatory role for a CCP beyond those requirements the CCP imposes as a condition for participation in the CCP. Where applicable, a CCP may rely on the supervisory activities of the participant's regulators, but this does not absolve the CCP from conducting its own due diligence".

In addition to the above, the 'effective monitoring of compliance with its participation requirements on an ongoing basis' means that members should be monitored regularly to assess changes in creditworthiness; changes to financial resources or net capital requirements should be monitored as and when they are received. In addition to this ongoing monitoring, the CCP should conduct thorough member reviews, at least annually, to fully assess each member's compliance with the membership criteria, to analyse their trading patterns and exposures over the year and to determine whether there are any underlying problems with the member operationally. If there are concerns that come to light regarding the member throughout the year in between the review period then an ad-hoc review should be undertaken.

A member review should not be seen to be a full audit of the member firm, more an opportunity for the CCP to undertake an exercise of 'getting to know the customer'. When an annual (or more regular) review is conducted, the following areas should be assessed:

- Background of the member, including the ownership and legal structure and analysis of any mergers or acquisitions;
- Exposure to the CCP over the period of review;
- Operational Capability, including any operational issues over the period of review and confirmation of key contacts;
- Financials including balance sheet and P&L analysis;
- External Credit Ratings/Research.

The analysis does not necessarily need to be completed in full for those members which are fully regulated and highly rated, as long as the ongoing monitoring continues to pick up any ad-hoc notifications from external regulators and rating agencies. The analysis should take into account whether the CCP also has exposure to the member for any other reason, i.e. as a treasury investment counterparty, settlement agent, bank guarantee provider, payment agent, issuer of securities or reference entity for cleared instruments.

Key Questions

- Does the CCP conduct annual reviews of their members?
- Does the analysis include the detail as listed above?

3. Pricing

ESCB-CESR Recommendation 3 'Measurement and Management of Credit Exposures', point 2 states that *"Mark-to-market should be used to the largest extent possible when measuring an instrument. In case of illiquidity of an instrument and of consequent difficulty in assessing a reasonable daily settlement price, the CCP should elaborate a model for assessing a reasonable daily settlement price, on the basis of the theoretical value of the financial instrument concerned."*

In addition to the statement above, in order to calculate the most accurate mark-to-market value, CCPs should perform rigorous assessments of 'best' market prices.

CCPs should have the ability to identify 'stale' or unrepresentative prices, for example where prices have not been updated recently or off-market prices have been received. The CCP should have the ability to override closing prices provided by the exchanges if they are deemed to be unrepresentative or incorrect, before using them in margin calculations, both intraday and end-of-day.

If prices are unavailable for any reason, alternative means of deriving prices, or applying additional margin, should be available to the CCP; the approach will be different depending on the asset class of the contract, for example:

- Equities – if market prices are not available for equities, it is not possible to derive a price for an equity without market quotes, therefore additional margin should be applied to cover the increased risk towards these securities.
- Derivatives – models can be used to calculate a price; the relationship to the underlying can be used to re-price. Risk factor interpolation, for example using volatility smiles or default probability curves, can be used in order to obtain more accurate price estimates.
- Bonds – can be priced off the yield curve, or similar bonds can be used to re-price bonds according to duration.

A CCP should monitor whether there are arbitrage opportunities due to the pricing of the contracts that they clear.

Key questions:

- Is the CCP able to identify 'stale' or unrepresentative prices?
- Does the CCP have the ability to amend or override prices used in valuations? intraday and end-of-day?
- If prices are unavailable, does the CCP have the ability to derive a price using models or yield curves, or the ability to call additional margin to account for the pricing risk?

4. Third Party Guarantee Limits

If a CCP accepts performance bonds or guarantees from banks or other third party providers to cover margin requirements or guarantee fund liabilities, then there should be standard legal elements included in the guarantee to limit performance risk and ensure enforceability of the guarantee, i.e. the risk that when the guarantee/bond is called on it will not be honoured by the guarantor.

CCPs should consider how quickly a guarantee provider will be obliged to provide the funds in the event of the CCP calling on the guarantee. The CCP should ensure that the time period agreed with the guarantor fits in with their liquidity planning.

There should be minimum credit ratings and acceptable criteria in place for determining acceptable issuers for guarantees. Issuers should be assessed on a regular basis to ensure that they still meet the required criteria. Limits should also be established on the value of the guarantees accepted from each issuer, in order to prevent concentration risk. Consideration should also be given to the overall exposure to any one bank/issuer given that they may be a clearing member, settlement agent or payment agent as well as a guarantor.

Guarantees should not be accepted from entities in the same financial group as the entity being guaranteed. No cross-guarantees or known 'closed-chain' guarantees should be accepted, i.e. where members are providing reciprocal guarantees for each other.

Key questions

- Does the CCP have its own standard legal elements defined for bank guarantees?
- Has the CCP considered the time taken to receive funds from the guarantor alongside their liquidity planning?
- Are criteria clearly defined to enable the CCP to determine the eligibility of bank guarantors? Are limits defined per counterparty?
- Is there a regular process for assessing guarantors to ensure they meet the criteria on an ongoing basis?
- Are rules in place to prevent cross-guarantees or reciprocal guarantee arrangements?

5. Intraday Margining

ESCB-CESR Recommendation 3 'Measurement and Management of Credit Exposures', point 2 states that *"A CCP should measure its exposures at least once a day and should have the operational ability to measure its exposures on an intra-day basis, either routinely or at a minimum when specified thresholds are breached (for example, when market price changes exceed pre-specified thresholds or when one or more participants build up large positions during the day)"*

In addition, ESCB-CESR Recommendation 4 'Margin Requirements', point 4 states that *"To mitigate intraday risks, a CCP should have the authority and operational capacity to make intraday margin calls, at a minimum when pre-specified thresholds are breached (for example, when market price changes exceed pre-determined thresholds or when one or*

more participants build up large positions during the day). Some CCPs provide services for markets in which exposures can change dramatically within the day, either because of participants' trading activity or price volatility. In such cases, a CCP should monitor exposures intra-day (recommendation 3) and limit the build up of potential losses from exposures through both routine and special intra-day margin calls".

In addition to the recommendations above, when assessing intraday exposures and making intraday margin calls, a CCP should use the most up-to-date positions possible and near real-time market prices. Full portfolio revaluation is preferable in order to provide the most accurate measure of risk exposure. All realised variation margins should be considered in the intraday margin call calculation.

Key questions

- Does the CCP have the ability to obtain up-to-date accurate positions and prices for use in intraday margin calculations?
- Does the CCP perform full portfolio revaluations intraday?

6. Credit Tolerances/Thresholds

It is accepted that some CCPs prefer to avoid regular intraday margin calls; accordingly initial margin requirements are established that are based on such calls being exceptional. Alternatively CCPs may require members to provide additional margin that covers the risk of new business entered into during the course of day T, as this business is not reflected in initial margin requirements until T+1. Such arrangements need, of course, to be supplemented by routine evaluation to check that the margin guarantee is sufficient.

A CCP may wish to take further action to prevent the need for calling members for small amounts of margin intraday. They may objectively establish intraday credit tolerances or thresholds which essentially allow the member's liability to increase by a certain amount or percentage before actually calling the member for additional margin. This tolerance or threshold should be objective and based on the CCP's credit evaluation of the member and/or the scale of their existing exposures with the CCP. The credit tolerance should always be at the discretion of the CCP and does not need to be publicised to external parties.

Key questions

- Does the CCP have a policy for assigning credit tolerances or thresholds to members? Are the levels set and applied objectively?

7. Treasury Investment

ESCB-CESR Recommendation 7 'Custody and investment risks', point 3 states that "A CCP has the responsibility to ensure that such investments do not compromise its ability to use the funds for their intended purpose. [...] Investments should be secured or they should be claims on high quality obligors to mitigate the credit risk to which a CCP is exposed. Because the value of these investments may need to be realised quickly, they should be of a type that would enable a CCP to liquidate them with little if any adverse price effect. Investments in illiquid or volatile instruments are not appropriate. The CCP should consider how its choice of issuer and maturities of financial instruments will affect its ability to liquidate its portfolio quickly."

In addition to the recommendations above, a CCP's cash should be invested only with selected high quality investment counterparties and there should be a policy in place stipulating the criteria for selecting the investment counterparties. There should be a policy outlining appropriate limits for each counterparty in order to avoid concentration risk.

Overall a CCP's investments should be as secure as possible without impacting the CCP's liquidity needs. Investments should be held either in the form of CDs or bonds, or secured under reverse repurchase agreements. The collateral received against a reverse repurchase agreement should be subject to suitable haircuts.

Any unsecured investments should be within the CCP's capital base to prevent the possibility that the CCP could become insolvent in the event of an investment counterparty defaulting.

Non-cash collateral should be lodged with central securities depositories or other high quality custodians. The credit-standing and operational arrangements of these custodians should be assessed regularly by the CCP.

Key questions

- Does the CCP have a policy to determine eligibility of investment counterparties? Are the criteria suitable for a CCP given the need for high quality obligors?
- Does the CCP have a policy of investing their funds securely?
- Is collateral received under repo arrangements suitably haircut?
- Are unsecured investments limited to within the CCP's capital base?
- Is there a policy in place to determine the eligibility of non-cash collateral custodians? Is compliance with this policy assessed regularly?

8. Non-Default Risk Losses

ESCB-CESR Recommendation 8 'Operational Risk' point 4 states that "*CCPs should actively identify and analyse sources of risk, whether arising from the arrangements of the CCP itself, from those of its participants, or from external factors, [...] and establish clear policies and procedures to address those risks*".

In addition, each CCP should ensure that it has sufficient resources to cover business risks other than member default – so that it can ensure its ability to continue to provide the central counterparty services to the market or markets that it clears. The arrangements and procedures should ensure that:

- resources are adequate in quantity;
- adequacy is regularly assessed by appropriate quantitative evaluation;
- the resources are held in liquid form and prudently invested;
- if the resources form part of the default backing, they are not double-counted in assessing the requirements for non-default risk.

Key questions:

- Does the CCP regularly assess the adequacy of their resources to cover non-default risk?
- Are the resources for covering non-default risk held in liquid form and prudently invested?
- Are these resources double counted as part of default backing?

9. Risk Management Independence

ESCB-CESR Recommendation 13 'Governance' point 4 states that: *"Governance arrangements are particularly important because the interests in relation to risk management of a CCP's owners, its managers, its relevant market participants, the exchanges and trading platform it serves, and the public are different and may conflict. Given that the interests are not always compatible, there should be a predefined policy and procedures for identifying and managing these potential conflicts of interest, e.g. consultation mechanisms. To ensure that such conflicts do not undermine the effectiveness of a CCP's risk management it is essential that those responsible for this aspect of a CCP's business have sufficient independence to perform their role effectively. There should therefore be a clear separation between the reporting lines for risk management and those for other operations of a CCP."*

In particular risk management staff should be independent from the commercial function of the CCP. Remuneration structures for risk management staff should not create perverse incentives to relax risk standards. It is imperative that the risk management department has the ability to determine margin rates and implement risk management practices without pressure from the commercial function; it is not acceptable to compromise risk management practices or policies in order to gain a competitive advantage, for example membership requirements, margin levels and default fund levels should not be used as a competitive tool.

Key questions

- Is the Risk Management department governed separately to the commercial function of the CCP?
- Is there any scope for conflicting decisions on risk management between the risk management department and other areas of the CCP?
- Does the remuneration structure for risk management prevent the creation of perverse incentives to relax risk standards?

10. Publication of information

ESCB-CESR Recommendation 14 'Transparency', Key Issue 1, states that: *"A CCP should provide market participants with sufficient information to evaluate the risks and costs of using its services. The information should include the main statistics and, where relevant, the latest audited balance sheet of the CCP. A CCP should publicly and clearly disclose its risk exposure policy and risk management methodology..."*

Each CCP should publish, and update at suitable intervals, a comprehensive description of its risk management practices to illustrate how its arrangements meet the recommendations – so that its arrangements are transparent and so that confidence in those arrangements can be based on detailed, widely-available knowledge; the CCP's rulebook and literature should clearly specify both the scope and extent of the obligations entered into by the CCP and the time at which its obligations come into effect. In doing so CCPs may take reasonable steps to protect intellectual property. The risk management information should:

- be objective rather than promotional in both content and style;
- be as accurate, clear and up-to-date as possible;
- enable a CCP's practices to be compared to the recommendations outlined above and in the ESCB-CESR Recommendations.

Key questions

- Does the CCP publish its risk management practices? Are they updated regularly?
- Does the CCP clearly specify the scope and the extent of the CCP's obligations?
- Is the risk management literature objective, accurate, clear and up-to-date?