

Guidelines

On CCP recovery plan scenarios (Article 9(12) of CCPRRR)



Table of Contents

I.	Scope.....	3
II.	Legislative references, abbreviations and definitions.....	4
III.	Purpose	6
IV.	Compliance and reporting obligations	7
V.	Guidelines on CCP recovery plans scenarios.....	8
	Guideline 1: Establishing the appropriate number of scenarios to be included in CCP recovery plans	8
	Guideline 2: Types and sources of risk to be covered by CCP recovery plan scenarios.....	9
	Guideline 3: Principles for determining the magnitude of CCP recovery plan scenarios.....	11
	Guideline 4: Information to be included in the description of CCP recovery plan scenarios	11
	Guideline 5: Maintenance of CCP recovery plan scenarios.....	12
VI.	Annexes	13

I. Scope

Who?

1. These Guidelines apply to competent authorities as defined in point (7) of Article 2 of CCPRRR and to CCPs authorised under Article 14 of EMIR.

What?

2. These Guidelines apply in relation to Article 9(12) of CCPRRR, which mandates ESMA to further specify the range of recovery plan scenarios that should be considered for the purposes of CCP recovery plans referred to in Article 9(1) of CCPRRR.
3. These Guidelines should be read in conjunction with the ESMA Guidelines on CCP recovery plan indicators (ESMA91-372-1702).

When?

4. These Guidelines apply from two months after the date of publication on ESMA's website in the official languages of the European Union.

II. Legislative references, abbreviations and definitions

Legislative references

CCPRRR	Regulation (EU) 2021/23 of the European Parliament and of the Council of 16 December 2020 on a framework for the recovery and resolution of central counterparties and amending Regulations (EU) No 1095/2010, (EU) No 648/2012, (EU) No 600/2014, (EU) No 806/2014 and (EU) 2015/2365 and Directives 2002/47/EC, 2004/25/EC, 2007/36/EC, 2014/59/EU and (EU) 2017/1132 ¹
EMIR	Regulation (EU) 648/2012 of 4 July 2012 of the European Parliament and Council on OTC derivatives, central counterparties and trade repositories ²
ESMA Regulation	Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC ³
Delegated Regulation 152/2013	Commission Delegated Regulation (EU) No 152/2013 of 19 December 2012 on capital requirements for central counterparties ⁴
Delegated Regulation 153/2013	Commission Delegated Regulation (EU) No 153/2013 of 19 December 2012 on requirements for central counterparties ⁵

¹ OJ L 22, 22.1.2021, p. 1–102

² OJ L 201, 27.7.2012, p. 1

³ OJ L 331, 15.12.2010, p. 84

⁴ OJ L 52, 23.2.2013, p. 37

⁵ OJ L 52, 23.2.2013, p. 41

Abbreviations

<i>CCP</i>	Central Counterparty
<i>EC</i>	European Commission
<i>EEA</i>	European Economic Area
<i>ESFS</i>	European System of Financial Supervision
<i>ESMA</i>	European Securities and Markets Authority
<i>ESRB</i>	European Systemic Risk Board
<i>EU</i>	European Union

Definitions

5. Unless otherwise specified, the terms used in these Guidelines have the same meaning as in CCPRRR, EMIR and the Delegated Regulations 152/2013 and 153/2013.

III. Purpose

6. These Guidelines are based on Article 9(12) of CCPRRR and issued in accordance with Article 16(1) of the ESMA Regulation. The objectives of these Guidelines are to establish consistent, efficient and effective supervisory practices within the ESFS and to ensure the common, uniform and consistent application of Article 9(1) of CCPRRR. They aim at specifying the range of recovery plan scenarios to be considered by CCPs when drawing up and maintaining their recovery plans and by competent authorities when assessing those recovery plans.
7. The objective of preparing the range of recovery plans scenarios is to identify a range of forward-looking events of severe distress, a CCP may face, against which the effectiveness of recovery measures and the adequacy of indicators contained in the CCP recovery plan can be tested.

IV. Compliance and reporting obligations

Status of the Guidelines

8. In accordance with Article 16(3) of the ESMA Regulation, competent authorities and CCPs must make every effort to comply with these Guidelines.
9. Competent authorities to which these Guidelines apply should comply by incorporating them into their national legal and/or supervisory frameworks as appropriate, including where particular Guidelines are directed primarily at CCPs. In this case, competent authorities should ensure through their supervision that CCPs comply with the Guidelines.

Reporting requirements

10. Within two months of the date of publication of the Guidelines on ESMA's website in all EU official languages, competent authorities to which these Guidelines apply must notify ESMA whether they (i) comply, (ii) do not comply, but intend to comply, or (iii) do not comply and do not intend to comply with the Guidelines.
11. In case of non-compliance, competent authorities must also notify ESMA within two months of the date of publication of the Guidelines on ESMA's website in all EU official languages of their reasons for not complying with the Guidelines.
12. A template for notifications is available on ESMA's website. Once the template has been filled in, it shall be transmitted to ESMA.
13. CCPs to which these Guidelines apply shall report to their competent authorities, in a clear and detailed way, whether they comply with these Guidelines.

V. Guidelines on CCP recovery plans scenarios

Guideline 1: Establishing the appropriate number of scenarios to be included in CCP recovery plans

14. A CCP should include in its recovery plans at least one actual scenario for each of the seven types of scenarios (as set out in Table 1 in Annex). The CCP should build each of these actual scenarios in a way that best fits its specific characteristics and level of complexity. When building these actual scenarios, the CCP should consider *inter alia* the list of '*issues and aspects to consider when building the scenario*' (as set out in Table 1 in Annex).
15. By a way of derogation from the previous paragraph, a CCP may combine two types of scenarios into one actual scenario, as long as i) such combination of types of scenarios covers the full range of the underlying assumptions and considerations (i.e. the '*issues and aspects to consider when building the scenario*') as well as all relevant types and sources of risk faced by the CCP; ii) such combination is accompanied by a rationale by the CCP explaining the reasoning behind such combination to its competent authority and be subject to the competent authority's prior approval; and iii) the CCP still creates at least one actual 'pure' default event scenario (i.e. a scenario of type 1, 2 or 5 or a combination thereof) and one actual 'pure' non-default event scenario (i.e. a scenario of type 3, 4 or 6 or a combination thereof). For the avoidance of doubt, a CCP may not combine more than two types of scenarios into one actual scenario.
16. A CCP should further assess, based *inter alia* on the list of '*factors to evaluate the creation of additional scenarios*' (as set out in Table 1 in Annex), whether it is necessary to create additional actual scenarios for each type of scenario. The general principle to interpret the factors when evaluating the need to create the additional actual scenarios should be:
 - a) The applicability of any of the factors to the CCP's characteristics leading to a material difference in the:
 - (i) Availability or usage of recovery measures;
 - (ii) Order of usage of the recovery measures;
 - (iii) Path of loss propagation (e.g. from the CCP to the clearing members), which will greatly depend on the rules of loss allocation, which may be different depending on the origin of the loss (e.g. a different waterfall depending on the service considered, a different loss allocation depending on the origin or on the magnitude of an investment loss, etc.);
 - (iv) Impact on stakeholders;
 - b) The existence of subset(s) of entities that due to their material impact should be addressed with an individualised scenario.

For the avoidance of doubt, this paragraph applies even where the CCP combines two types of scenarios into one actual scenario.

17. In addition, when evaluating the need to create the additional actual scenarios, a CCP should ensure, as outlined in Guideline 2, that its range of recovery plan scenarios provides a comprehensive coverage of all relevant types and sources of risk.
18. A CCP may test the related recovery measures using *inter alia* the list of ‘*quantitative assessment tools*’ included for each type of scenario (as set out in Table 1 in Annex) to produce quantitative impacts for the scenarios.
19. A CCP may include in its recovery plans further scenarios not specified in these Guidelines tailored to the specificities and operations of the CCP.

Guideline 2: Types and sources of risk to be covered by CCP recovery plan scenarios

20. The range of recovery plan scenarios of a CCP should provide a comprehensive coverage of all ‘relevant types and sources of risk’. ‘Relevant types and sources of risk’, for the purposes of these Guidelines, should be understood as types and sources of risk (and their most plausible combinations) that may severely affect the financial soundness or operational viability of the CCP and create extreme stress situations, while remaining plausible, that would exceed the CCP’s risk mitigation measures required under EMIR (i.e. ‘business as usual’ risk management tools, such as changes in risk parameters, increase of guarantees, trading limits, etc.), and may put at risk the CCP’s ability to perform its critical functions.
21. Therefore, a CCP should assess which of the types and sources of risk, from the list below, are relevant to the CCP, and should ensure that its range of recovery plan scenarios covers all of those that the CCP assesses as ‘relevant types and sources of risk’:
 - a) Legal risk;
 - b) Credit risk;
 - c) Liquidity risk;
 - d) General business risk;
 - e) Custody risk;
 - f) Settlement risk;
 - g) Investment risk;
 - h) Operational risk (including fraud risk and cyber risk);

- i) Systemic risk;
- j) Environmental and Climate risk;
- k) Market risk:
 - c) Linked to market movements;
 - d) Linked to the reduction of market availability (tradable volumes, availability and willingness to trade of market counterparties).
- e) Any interconnected entity or service provider (in isolation or in combination), including:
 - f) Clearing members and clients, both direct and indirect;
 - g) Issuers of collateral or investment assets;
 - h) Interoperable CCPs;
 - i) CSDs;
 - j) Payments systems;
 - k) Securities settlement systems;
 - l) Nostro agents;
 - m) Custodian banks;
 - n) Settlement banks;
 - o) Concentration banks;
 - p) Payment banks;
 - q) Liquidity providers;
 - r) Group entities;
 - s) Other service providers required to perform critical functions during business as usual or default management situations.

Guideline 3: Principles for determining the magnitude of CCP recovery plan scenarios

22. A CCP should ensure that its recovery plan scenarios cover the situations that due to their severity would exceed the CCP's risk mitigation measures required under EMIR (i.e. business as usual risk management tools) and put at risk the viability of the CCP if no recovery actions are taken.
23. In this respect, the recovery plan scenarios should be focused on:
 - a) Scenarios of financial losses due to default events of a magnitude that would consume resources through the waterfall exceeding the prefunded resources calculated in accordance with Article 43(2) of Delegated Regulation 153/2013 or involving failures in the execution of business as usual risk management tools;
 - b) Scenarios generating liquidity needs in excess of the amounts calculated in accordance with Article 44(1) of Delegated Regulation 153/2013, involving failures in the execution of business as usual risk management tools or using different assumptions with regards to liquidity needs or availability of resources that generate as a result higher levels of stress;
 - c) Scenarios of financial losses due to non-default events of a magnitude that is likely to deplete a significant proportion of the amount of required capital to cover non-default losses as calculated in line with Delegated Regulation 152/2013.
24. Furthermore, with respect to operational risk:
 - a) The recovery plan scenarios should not cover the scenarios of operational resiliency already covered by the relevant policies and procedures required by Article 34 of EMIR (Business Continuity Policy, Disaster Recovery Plan, Business Impact Analysis, Crisis Management). The recovery plan scenarios should however include, if deemed relevant, scenarios in which all resiliency measures that form part of the policies and procedures required by Article 34 of EMIR are surpassed, leading to a failure in one or more critical functions of the CCP that exceed the requirement set out in Article 17(6) of Delegated Regulation 153/2013;
 - b) Furthermore, the recovery plan scenarios should cover the systemic risk effects caused by operational risk events affecting entities which are service providers to the CCP.

Guideline 4: Information to be included in the description of CCP recovery plan scenarios

25. In order to ensure that the range of the recovery plan scenarios, detailed by a CCP, are overall relevant and suitable, a CCP should aim at including the necessary information in its recovery plan scenarios to describe the circumstances and the relevant types and sources of risk that could put at risk the CCP's ability to perform its critical functions. In

this regard, the CCP may include the following information when describing the scenarios, account taken of the different range of scenarios:

- a) The types and sources of risk relevant to the scenario; This includes secondary effects of the scenario that could materialise as long as the risk is relevant;
- b) If multiple types of entities are sources of risk, how they are identified and how they could combine or interact;
- c) The type of impacts: financial loss, liquidity shortfall, threat to operational viability;
- d) The specific circumstances that could materialise and pose risk to the CCP; The scenario should not just identify the relevant types and sources of risk but also aim to specify how the risks could materialise;
- e) Any specific particularities of the scenario regarding the path of loss propagation with respect to the CCP or affected stakeholders derived from segregation, ring-fencing or any operational rule that affects the path of loss propagation;
- f) Any other specific clauses or legal aspects from the operational rules of the CCP or the national legal framework that needs to be taken into account for the scenario;
- g) Any obstacles or circumstances that could create substantial practical impediments to implementing recovery measures.

Guideline 5: Maintenance of CCP recovery plan scenarios

26. A CCP should review and where necessary update its recovery plan scenarios, following Guidelines 1 – 4, every time the CCP reviews its recovery plan in accordance with Article 9(9) of CCPRRR.

VI. Annexes

Table 1: Matrix for building the range of CCP recovery plan scenarios

Types of Scenarios	Issues and aspects to consider when building the scenario	Factors to evaluate the creation of additional scenarios	Quantitative assessment tools
<p>1. Default event causing financial losses that propagate through the CCP's default waterfall with return to a matched book through voluntary, market-based tools</p> <p><i>(This scenario should cover the situation of the CCP having to absorb losses through its waterfall due to clearing members and/or interoperable CCPs defaulting on their payments.)</i></p>	<p>h) The need for the CCP to absorb losses in excess of the prefunded resources calibrated with extreme but plausible scenarios through their stress testing framework, either due to a higher number of defaults than the cover-2 requirement, shocks higher than modelled or liquidation costs of defaulter's portfolios higher than modelled, or resources depleted by a previous event which have not yet been replenished.</p> <p>i) The need for the CCP to replenish prefunded resources.</p> <p>j) Any cost incurred during the process, including the default</p>	<p>k) The existence of characteristics regarding the default fund structure, rules of the waterfall or applicable ring-fencing rules that would lead to different paths of loss propagation.</p> <p>l) Where the effect of defaults happening at different time intervals could affect differently the CCP in light of the CCP's operational rules and possible behaviours of non-defaulting clearing members.</p> <p>m) The possibility of market-wide liquidity strains impacting the prompt availability of voluntary, market-based tools.</p>	<p>n) CCPs should use as a starting point the existing framework of stress test scenarios, as it should already be adapted to the products cleared by the entity and should cover comprehensively idiosyncratic and systemic market shocks that could be sources of stress.</p> <p>o) Using the existing set of CCP's stress test scenarios, the CCP should use a reverse stress testing methodology to scale up the scenarios, quantify potential losses and assess the possible outcomes.</p> <p>p) Reverse stress testing may take into account:</p>

Types of Scenarios	Issues and aspects to consider when building the scenario	Factors to evaluate the creation of additional scenarios	Quantitative assessment tools
	<p>management process or any costs from managing liquidity needs.</p>		<ul style="list-style-type: none"> ○ Higher number of defaults than two and a broader array of defaulting entities; ○ More severe shocks than specified in the existing set of stress test scenarios; ○ Increased costs from the liquidation of portfolios, either due to higher impact from market liquidation or due to difficulties in allocating positions during the default management process; ○ Increases in severity of other assumptions on which the stress scenarios rely, such as decorrelation risk.
<p>2. Default event causing financial losses with a default management process that necessitates the use of mandatory, rules-based arrangements (as set out in the CCP's</p>	<p>q) Potential events that could affect the default management process leading to difficulties reestablishing a matched book or increasing the</p>	<p>r) Where depending on the source or circumstances of the issues there is a material difference in the available recovery measures, order</p>	<p>t) Same as the type of scenario 1, but modelling the impact of the mandatory, rules-based arrangements.</p>

Types of Scenarios	Issues and aspects to consider when building the scenario	Factors to evaluate the creation of additional scenarios	Quantitative assessment tools
<p>recovery plan) in order to re-establish a matched book</p> <p><i>(This scenario addresses the situation in which a CCP is not able to re-establish a matched book through voluntary, market-based tools and necessitates the use of mandatory, rules-based arrangements such as cash calls, variation margin haircutting, forced allocation or tear-up of contracts.)</i></p>	<p>costs of doing so. It should take into account:</p> <ul style="list-style-type: none"> ○ Obligations of clearing members with regard to the default management process; ○ Potential lack of risk appetite in the market for auctioned portfolios; ○ Possible difficulty to access the market (e.g. due to the liquidity of the market) either for the cleared positions or the collateral, or both. 	<p>of usage, path of loss propagation or impact on stakeholders.</p> <p>s) Potential operational risk events that could affect the default management process.</p>	
<p>3. Non-default event preventing the CCP from performing its critical functions</p> <p><i>(This scenario addresses the situation of a non-default event preventing the CCP from continuing to perform services.)</i></p>	<p>u) Operational or other events that could impair:</p> <ul style="list-style-type: none"> ○ Clearing activities (e.g. affecting trade novation); ○ Collateral management (e.g. receiving or returning collateral). 	<p>v) How these would be mitigated by back-up solutions.</p> <p>w) How clearing members or connected FMIs could be impacted.</p>	<p>x) Using expert judgment to assess the length of time of the disruption and the impact of other FMIs.</p> <p>y) Assessing if the return to normal is possible in full after a period of non-availability.</p>

Types of Scenarios	Issues and aspects to consider when building the scenario	Factors to evaluate the creation of additional scenarios	Quantitative assessment tools
			z) Effectiveness of mitigants such as back-up payment systems.
<p>4. Non-default event causing financial losses</p> <p><i>(This scenario addresses the situation of a non-default event causing financial losses that is likely to deplete a significant proportion of the CCP's capital resources.)</i></p>	<p>aa) Financial losses that may have immediate or deferred impact towards the CCP or its participants due to any:</p> <ul style="list-style-type: none"> ○ Investment losses; ○ Losses arising from failures of securities custodians or settlement banks; ○ Losses caused by fraud, theft or other misconduct of employees and/or third parties; ○ Losses resulting from cyber-attacks; ○ Losses from operational or systems failures; ○ General business risks; 	<p>bb) Where there is a group structure with respect to the layers of capital or tools available to absorb losses, specific scenarios contemplating potential failures in the execution of group agreements, contractual commitments, parental guarantees or other relevant provisions should be created (in accordance with Article 9(13) of CCPRRR).</p> <p>cc) Where depending on the source or circumstances of the loss there is a material difference in the available recovery measures, order of usage, path of loss propagation or impact on stakeholders.</p> <p>dd) Where applicable, obligations of clearing members in terms of loss allocation for specific types of non-default losses risks.</p>	<p>gg) The various sources of non-default losses are very differentiated and may warrant different approaches.</p> <p>hh) CCPs may use scenario analysis with expert judgment to estimate potential non-default losses under extreme but plausible scenarios derived from the different sources of risk.</p> <p>ii) CCPs may wish to use crisis simulation and stress-testing exercise to assess whether their suggested approaches to fully absorb non-default losses and recapitalise the CCP would be comprehensive and credible.</p>

Types of Scenarios	Issues and aspects to consider when building the scenario	Factors to evaluate the creation of additional scenarios	Quantitative assessment tools
	<ul style="list-style-type: none"> ○ Any other non-default loss applicable to the CCP. 	<ul style="list-style-type: none"> ee) Any other type of third-party funding (e.g. insurance), contemplating potential funding gaps, delays or failures in pay-outs. ff) Market-based tools to recapitalise the CCP, and their prospective reliability in extreme stress situations. 	
<p>5. Default event causing a liquidity shortfall</p> <p><i>(This scenario addresses the situation in which there is a default event that creates a liquidity shortfall exceeding the business as usual liquidity management tools.)</i></p>	<ul style="list-style-type: none"> jj) Liquidity shortfalls that may result from a higher number of clearing member defaults than two, market shocks higher than modelled by the CCP's stress testing framework or liquidation costs of defaulter's portfolios higher than modelled. kk) Operational funding liquidity needs and potential increases in these 	<ul style="list-style-type: none"> ll) The existence of tools used as part of the business as usual liquidity framework the availability of which depends on third parties, group entities or general access to financial markets and the failure of which would have a material impact on the liquidity management capabilities of the CCP. 	<ul style="list-style-type: none"> mm) Liquidity reverse stress testing using similar principles as described in the quantitative tools of the type of scenario 1 for the calculation of potential liquidity needs. nn) Scenario analysis to assess the impact from the failure of liquidity tools used in the liquidity risk management framework that depend on third

Types of Scenarios	Issues and aspects to consider when building the scenario	Factors to evaluate the creation of additional scenarios	Quantitative assessment tools
	<p>needs due to clearing member defaults.</p>		<p>parties, group entities or general access to financial markets.</p> <p>oo) Risk assessment and scenario analysis of FMIs, service providers and interconnected entities.</p>
<p>6. Non-default event causing a liquidity shortfall</p> <p><i>(This scenario addresses the situation in which there is a non-default event that creates a liquidity shortfall exceeding the business as usual liquidity management tools.)</i></p>	<p>pp) Liquidity shortfalls generated as a result of an entity that could fail due to financial or operational reasons from the list provided in Guideline 2 generating as a result a liquidity shock to the CCP.</p> <p>qq) Operational funding liquidity needs and potential increases in these needs due to failures of entities provided in Guideline 2.</p>	<p>rr) The existence of multiple entities from the list provided in Guideline 2 whose operational failure would cause a material liquidity impact to the CCP.</p> <p>ss) The existence of tools used as part of the business as usual liquidity framework the availability of which depends on third parties, group entities or general access to financial markets and the failure of which would have a material impact on the liquidity management capabilities of the CCP.</p>	<p>uu) Liquidity reverse stress testing using similar principles as described in the quantitative tools of the type of scenario 1 (with the exception of the elements of the reverse stress tests describing defaulting clearing members) for the calculation of potential liquidity needs.</p> <p>vv) Scenario analysis to assess the impact from the failure of liquidity tools used in the liquidity risk management framework that depend on third parties, group entities or general access to financial markets.</p>

Types of Scenarios	Issues and aspects to consider when building the scenario	Factors to evaluate the creation of additional scenarios	Quantitative assessment tools
		tt) Differences in the available recovery measures, order of usage or impact on stakeholders that depend on the type of entity or event generating the liquidity shortfall.	ww) Risk assessment and scenario analysis of FMIs, service providers and interconnected entities.
7. Event(s) causing simultaneous default and non-default losses <i>(This scenario addresses the situation in which there are concurrent default and non-default losses as a result of a single event or as a result of multiple events that occur in a reduced time span.)</i>	xx) How the two paths of loss propagation (through the waterfall for default losses and through CCP's capital for non-default losses) would behave and potentially converge.	yy) Where there are specific entities that are material sources of both default and non-default losses, specific scenarios analysing the effects of default events affecting these entities may be relevant. zz) Where non-default losses would be borne by clearing members affecting the path of loss propagation. aaa) Where there are material differences between different combinations of default and non-default events with respect to the available tools, usage of tools,	bbb) Combinations of tools from types of scenarios 1, 2, 3 and 4.

Types of Scenarios	Issues and aspects to consider when building the scenario	Factors to evaluate the creation of additional scenarios	Quantitative assessment tools
		paths of losses or impact on stakeholders.	