



European Securities and
Markets Authority

Final Report

Guidelines for the methodology to value each contract prior to termination (Article 29(7) of the CCPRRR)



Table of Contents

Executive Summary	3
1 Legislative references and abbreviations.....	4
2 Mandate	5
3 Methodology to determine the value of contracts prior to termination	6
3.1 Background on the termination of contracts	6
3.1.1 Summary of consultation responses.....	8
3.1.2 ESMA’s feedback.....	9
3.2 Scope of the Methodology – Contract.....	9
3.2.1 Summary of consultation responses.....	10
3.2.2 ESMA’s feedback.....	11
3.3 Re-use of CCP methodology and sequencing.....	11
3.3.1 Summary of consultation responses.....	12
3.3.2 ESMA’s feedback.....	14
3.4 Valuation	14
3.4.1 Using BRRD Valuation methodology.....	14
3.4.2 Process and preparedness.....	15
3.4.3 Using the CCPs terms and arrangements (Step 1).....	15
3.4.4 Limitations in using the CCP rules and arrangements	16
3.4.5 Using an alternative appropriate price discovery method (Step 2).....	17
3.4.6 Summary of consultation responses.....	18
3.4.7 ESMA’s feedback.....	19
4 Annexes	20
Annex I: Legislative mandate to develop the Guidelines	20
Annex II: Cost and Benefit analysis	21
4.1.1 Summary of consultation responses.....	23
4.1.2 ESMA’s feedback.....	23
Annex III: Advice of the Securities and Markets Stakeholder Group	24
Annex IV: Guidelines on valuation methodology.....	25
5 Scope.....	26
6 Legislative references, abbreviations and definitions.....	27
7 Purpose.....	29

8	Compliance and reporting obligations.....	30
8.1	Status of the Guidelines	30
8.2	Reporting requirements.....	30
9	Guidelines on valuation methodology.....	30
	Guideline 1: Process.....	30
	Guideline 2: Scope	31
	Guideline 3: Valuation according to the rules and arrangements of the CCP	31
	Guideline 4: Decision not to use the rules and arrangements of the CCP	31
	Guideline 5: Valuation using alternative price discovery methods and sources	32
	Guideline 6. Requirement to provide information	32
	Guideline 7. Assessment by the resolution authority.....	33

Executive Summary

Reasons for publication

Article 29 of Regulation (EU) 2021/23 on a framework for the recovery and resolution of central counterparties ('CCPRRR') stipulates the steps that the resolution authority shall take prior to the termination of any contracts of a CCP under resolution. The resolution authority shall first require the CCP to value each contract and update the account balances of each clearing member. This valuation shall be based, as far as possible, on a fair market price determined on the basis of the CCP own rules and arrangements, unless the resolution authority deems necessary the use of another appropriate price discovery method.

Under the same Article, ESMA is mandated to issue Guidelines further specifying the methodology to be used by the resolution authority for determining the valuation of contracts to be terminated under the Article and how the CCP values each contract. ESMA shall issue the Guidelines by 12 February 2022. The purpose of this Final Report is to present the Guidelines.

ESMA published the Consultation Paper with its draft Guidelines under Article 29 of CCPRRR on 18 November 2021. The consultation ended on 24 January 2022. ESMA also held a public hearing on the Consultation Paper (along with other consultation papers issued by ESMA under CCPRRR) on 14 January 2022.

ESMA has also sought advice from the Securities and Markets Stakeholder Group. The Final Report (and the accompanying final Guidelines) assesses and takes, where suitable, into account the feedback provided by the respondents to the consultation.

Contents

This Final Report presents the Guidelines specifying the methodology to value each contract prior to termination (Article 29(7) of the CCPRRR).

Section 2 provides an introduction to the mandate. Section 3 covers the methodology to determine the value of contracts prior to termination, and in particular section 3.1 covers the background on the termination of contracts, section 3.2 focuses on the scope of the methodology, section 3.3 is on the re-use of CCP methodology and sequencing, and section 3.4 is detailing the valuation. Section 4 contains the Annexes: the mandate (Annex I), the cost-benefit analysis (Annex II), the outcome of the SMSG consultation (Annex III), and the Guidelines (Annex IV).

Next Steps

The Guidelines will apply after their publication by ESMA on its website in the official languages of the European Union.

Pursuant to Article 16(3) of ESMA Regulation, competent authorities must inform ESMA of whether they (i) comply, (ii) do not comply but intend to comply, or (iii) do not comply and do not intend to comply with these Guidelines. In case of non-compliance, competent authorities must state their reasons for non-compliance, within two months from 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.

1 Legislative references and abbreviations

Unless otherwise specified, the terms used in this Final Report have the same meaning as in EMIR.

In addition, the following terms apply:

competent authority	an authority designated under Article 22 of EMIR
CCP	Central Counterparty
EC	European Commission
EBA	European Banking Authority
ESMA	European Securities and Markets Authority
OJ	The Official Journal of the European Union
RTS	Regulatory Technical Standards
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 (OJ L 22, 22.1.2021).
EMIR	Regulation (EU) 648/2012 of 4 July 2012 of the European Parliament and Council on OTC derivatives, central counterparties and trade repositories (OJ L 201, 27.7.2012).
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 (OJ L 331, 15.12.2010).
Bank recovery and resolution directive (BRRD)	Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council (OJ L 173, 12.6.2014).
BRRD RTS (Valuation of Derivatives 2016/1401/BRRD RTS)	Commission Delegated Regulation (EU) 2016/1401 of 23 May 2016 supplementing Directive 2014/59/EU of the European Parliament and of the Council establishing a framework for the recovery and resolution of credit institutions and investment firms with regard to regulatory technical standards for methodologies and principles on the valuation of liabilities arising from derivatives (OJ L 228, 23.8.2016).

2 Mandate

1. The objective of the CCP recovery and resolution framework is to ensure that CCPs set out measures to recover from financial distress, to maintain the critical functions of a CCP which is failing or likely to fail while winding down the remaining activities through normal insolvency proceedings, and to preserve financial stability while avoiding a significant adverse effect on the financial system and its ability to serve the real economy and minimising the cost of a CCP failure to taxpayers.
2. The CCPRRR was published in the Official Journal on 22 January 2021 and entered into force on 12 February 2021¹.
3. Article 29(7) of CCPRRR mandates ESMA to develop Guidelines to further specify the methodology to be used by the resolution authority for determining the valuation of contracts prior to their termination.
4. The resolution authorities shall apply the position allocation tool referred to in Article 29 of CCPRRR in order to rematch the book of the CCP or bridge CCP where relevant. The position allocation tool is to be used in accordance with Article 29 of CCPRRR where the resolution authority terminates (partially or in full) certain contracts of the CCP under resolution². The position allocation tool is one of the tools that can be used by the resolution authorities individually or in combination with other tools when taking resolution actions.
5. Prior to the termination of any of the contracts, the resolution authority shall take the following steps required under Article 29(3) of CCPRRR:
 - (a) require the CCP under resolution to value each contract, and update the account balances of each clearing member;
 - (b) determine the net amount payable by or to each clearing member, taking account of any due but unpaid variation margin, including variation margin due as a result of the contract valuations referred to in point (a); and
 - (c) notify each clearing member of the determined net amounts and require the CCP to pay or collect them accordingly.
6. According to Article 29(4) of CCPRRR, the valuation under point (a) under Article 29(3) of CCPRRR shall be based, as far as possible, on a fair market price determined based on the CCP own rules and arrangements, unless the resolution authority deems necessary the use of another appropriate price discovery method.
7. When using the power to terminate contracts, the resolution authority shall terminate contracts referred to under each of the points of Article 29(1)(a)-(c) of CCPRRR³ in a

¹ 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 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.022.01.0001.01.ENG&toc=OJ%3AL%3A2021%3A022%3ATOC

² Article 29(1) of CCPRRR

³ According to Article 29(1) of CCPRRR, the resolution authority may terminate some or all of the following contracts of the CCP in under resolution: (a) the contracts with the clearing member in default; (b) the contracts of the affected clearing service or asset class; and (c) the other contracts of the CCP in under resolution.

similar way, without discriminating between counterparties to those contracts, except for those contractual obligations that cannot be enforced in a reasonable timeframe⁴.

8. Given that the position allocation is part of the resolution of the CCP the valuation of the contracts is to some extent linked to the valuation under Article 24 of CCPRRR. It is however understood that the valuation methodology contained within these Guidelines is to value contracts to be terminated, as part of the position allocation tool (Articles 27(1)(a) and 28(1) of CCPRRR) and thus should provide for a methodology for this specific purpose only since this valuation has a more narrow and direct applicability than the overall valuation methodologies of CCPs assets and liabilities in resolution developed under the mandate of Articles 25(6), 26(4) and 61(5) of CCPRRR.
9. ESMA is mandated to issue those Guidelines further specifying such methodology, to be used by the resolution authority for determining this valuation of contracts under termination.
10. Pursuant to Article 16(1) of ESMA Regulation, ESMA may issue Guidelines in order to establish consistent, efficient and effective supervisory practices. The scope of these Guidelines can thus in some aspects expand beyond the scope set forth by Article 29(7) of CCPRRR e.g. to include underlying process for the application of the methodology.
11. On 18 November 2021, ESMA launched a public consultation on the draft Guidelines with the deadline for consultation responses on 24 January 2022. ESMA also held a public hearing on the Consultation Paper (along with other consultation papers issued by ESMA under CCPRRR) on 14 January 2022.
12. The public consultation aimed at receiving stakeholders' feedback on a list of questions and on the draft Guidelines. This Final Report, and the accompanying Guidelines, takes into account the feedback provided by the respondents to the consultation. ESMA has also sought advice from the Securities and Markets Stakeholder Group.
13. This Final Report (and the accompanying Guidelines) introduces a number of relevant elements to further specify the methodology to be used by the resolution authority for determining the valuation of contracts prior to their termination.

3 Methodology to determine the value of contracts prior to termination

3.1 Background on the termination of contracts

14. In order to establish the methodology, there may be value in stating some fundamental concepts as background to the position allocation tool.
15. According to EMIR⁵, a CCP shall take prompt action to contain losses and liquidity pressures resulting from defaults. It shall ensure that the closing out of any clearing

⁴ Article 29(1) of CCPRRR

⁵ EMIR Article 48

member's positions does not disrupt its operations or expose the non-defaulting clearing members to losses that they cannot anticipate or control. Default procedures include the liquidation of proprietary positions of the defaulting clearing member and the transfer or liquidation of clients' positions of the defaulting clearing member. CCPs may use different methods to liquidate positions, including the execution of the opposite transactions in the market or through an auction mechanism. CCPs may also execute hedging transactions in order to temporarily hedge the risk until the final liquidation of positions.

16. Where a CCP is in recovery it will attempt to return to a matched book by entering into offsetting transactions and/or by holding an auction of the defaulter's positions. This is envisaged under CCPRRR as part of the recovery phase and listed in Section A, point 4 Annex of CCPRRR stating that:

“the recovery plan shall include the following items: [...] a comprehensive range of capital, loss allocation, position allocation and liquidity actions required to maintain or restore the viability and financial soundness of the CCP including to restore its matched book and capital, and replenish pre-funded resources and maintain access to sufficient sources of liquidity which are necessary for the CCP to maintain its viability as a going concern and to continue providing its critical services in accordance with the delegated acts adopted on the basis of Articles 16(3) and 44(2) of Regulation (EU) No 648/2012.”

17. Partial termination (also known as partial tear-up) are mainly intended to rebalance a CCP's book if an auction or similar voluntary mechanism fails to do so. Complete termination (also known as full tear-up) terminates all contracts, matched or unmatched, such that they do not proceed to settlement.
18. According to Article 27 of CCPRRR, the resolution authority shall, prior to the use of any resolution tools (including the position allocation tool) and subject also to the derogation stated in Article 27(4) of CCPRRR, enforce any existing and outstanding rights of the CCP. These include any contractual obligations by clearing members to take on positions of defaulting clearing members, whether through an auction or other agreed means in the CCP's operating rules. These actions, performed either by the CCP or by the resolution authority, may still leave contracts of the defaulter that were not fully liquidated or transferred. The resolution authority may use the right to terminate such contracts that have not been liquidated or transferred in order to rematch the book of the CCP or bridge CCP where relevant. This does not imply that the resolution authority needs to have tried to liquidate or transfer before terminating, but that any contracts that have been liquidated or transferred will not be subject to termination.
19. As the CCP interposes itself between the counterparties to the contracts, being the buyer to every seller and the seller to every buyer, it will have to terminate both sides of each contract. Hence, where it uses the right to terminate contracts of a defaulting clearing member, it will also have to terminate contracts with non-defaulting clearing members having the opposite position. Moreover, the resolution authority can terminate the contracts of the affected clearing service or asset class and the other contracts of the CCP under resolution. In this case, the resolution authority will also have to terminate both sides of each contract in order to retain a matched book. The valuation of both sides of each contract would need to be performed on the basis of a common fair market price.

20. Today, there exist several approaches on how to value contracts in close-out procedures, either as a result of a termination event or as a result of a default event. The market standard documentation from ISDA, GMRA and FIA all include valuation languages on how to value terminated transactions. However, there are two limitations regarding the application of these market standards for the purposes of the evaluation under Article 29 CCPRRR.
21. One limitation is that the remit of the mandate to ESMA under Article 29(7) of CCPRRR is to value *each contract*, i.e., it is not to establish a methodology to determine one single net amount to be paid by one party to the other party (which would be the case in a “close-out” netting). ESMA notes that the determination of the net amount payable by or to each clearing member is envisaged to be undertaken by the resolution authority after the CCP has valued each contract and is further regulated under Article 29(3)(b) of CCPRRR which is not covered in the mandate to ESMA, set out in Article 29(7) of CCPRRR.
22. The second limitation is that valuation methods under market standard documentation value contracts per counterparty, i.e., the valuation is specific to the counterparty at hand in calculating for example loss, market quotations or close-out amounts. Under this mandate ESMA notes the requirement on the resolution authority to terminate contracts in a similar way, without discriminating between counterparties to those contracts. Hence, ESMA is of the understanding that the methodology is not envisaged to establish a similar valuation method as under the market standard contracts but to establish a methodology to be applied towards all clearing members whose transactions will be subject to the position allocation tool.
23. ESMA also notes that the CCPs should, as far as possible, base the valuation on a fair market price, using their existing rules on valuation as part of the position allocation tool, apart from the situation where the resolution authority deems necessary to apply another price discovery method, i.e., another methodology to establish the value of each contract. This situation is further assessed below.

3.1.1 Summary of consultation responses

24. The majority of respondents agreed with the proposed analysis and the corresponding limitation on the use of market standard approaches for the valuation of contracts prior to termination. They also agreed with the limitations identified by ESMA on the use of market standard documentation from the main relevant trade organisations (e.g., ISDA, GMRA or FIA) including because methodologies described are based on portfolios or covers only a limited range of financial instruments, and as such they do not believe that their use should be mandated. Instead, they considered that the daily pricing of all contracts by CCPs which is a core CCP practice that can determine the end-of-day price and ensure a fair and robust price for partial tear-ups or allocation, supporting ESMA’s conclusion that CCPs should use their existing valuation rules “as part of the position allocation tool”.
25. Other respondent added that valuations of contracts before termination must be applied in very specific situations, and there is therefore little scope to use results of valuations in other contexts like the one foreseen in Article 24 of CCPRRR or approaches coming from bank resolution. The respondent however noted that whilst the valuation has to

be based on a fair market price in practice it is likely that the issue in termination (or tear-up) is that there is no clear market price, as otherwise, clearing members would have been able to bid on the auction.

26. Another respondent noted that the ability of the resolution authority to determine that another methodology than the one prescribed by the CCP's rule could be used, could create a lot of uncertainty for the CCP and market participants and should therefore be used as a last resort.

3.1.2 ESMA's feedback

27. Considering the overall support expressed in the consultation responses, ESMA does not propose to change its approach in the Final Report and the corresponding limitations on the use of market standard approaches.

3.2 Scope of the Methodology – Contract

28. ESMA is mandated to issue Guidelines further specifying the methodology to be used by the resolution authority for determining the valuation of contracts prior to their termination. The regulation does not provide an explicit definition of the term "contracts".
29. According to Article 29(1) of CCPRRR, the resolution authority may terminate some or all of the following contracts of the CCP under resolution:
- (a) the contracts with the clearing member in default;
 - (b) the contracts of the affected clearing service or asset class; and
 - (c) the other contracts of the CCP under resolution.
30. Considering how the concept of contract is used and in particular for the position allocation tool, ESMA notes that according to Article 28(2) of CCPRRR, the resolution authorities shall use the position and loss allocation tools in respect of contracts relating to clearing services and the collateral related to those services posted to the CCP. Hence, the reference to 'other contracts' (i.e., item (c) above) covers also contracts with non-defaulting members and non-affected clearing service or asset class.
31. Article 29(3)(b) and (c) of CCPRRR considers the impact of the termination vis-à-vis clearing members which is a clear indication that the mandate of the Guidelines should concentrate on contracts between the CCP and the clearing members with the exclusion of any other entities or same entity in another capacity. Furthermore Article 29(6) of CCPRRR refers to the "clearing of [...] contracts" which reinforces this stance that the contracts contemplated in the Guidelines should be cleared contracts, i.e. where the CCPs are stepping in between participants to act as the buyer to every seller and the seller to every buyer which excludes the relationship between the CCP and the clearing members related to the collateral. This interpretation is reinforced by Article 29(3)(b) of CCPRRR which refers to an action posterior to the valuation and relates to some collateral (i.e. variation margins) which seems to indicate that valuation under Article 29(3)(a) of CCPRRR excludes the obligations related to collateral. The Guidelines specifying the methodology are therefore deemed to be general enough to accommodate for the valuation of all cleared contracts.

32. Having concluded this limitation in the applicability of the methodology two aspects would need to be further considered, namely, the concept of “original contract” compared to the “live” contract at the CCP and the terminology used by CCPs in relation to contracts that may differ from the terminology or definitions used under EMIR.
33. ESMA notes that for a termination to take place only outstanding contracts between the CCP and the clearing members on the day of termination would be included in the termination. Furthermore, CCPs can net economically equivalent contracts and use cross-margining with correlated contracts cleared by the same CCP⁶. Hence where the contracts have been subject to netting or other post-trade risk reduction measures within the CCP, only the restated and the new contracts (if any) would be captured by the termination and valuation as part of position allocation.
34. ESMA also notes that whilst the mandate under Article 29(7) of CCPRRR is referring to “contracts” the CCP rulebooks may use other concepts in describing the legal relationship between the CCP and its clearing members such as “position”, “open interest”, “novated transactions” etc. Where the CCP calculates a value for a contract in accordance with its rules and arrangements, it should be clearly stated in a valuation how the CCP has carried out the valuation for the resolution authority to ensure such valuation covers contracts as described above thus with the relevant corresponding adjustments if the rulebook and operational processes usually uses those similar but different concepts.
35. In addition, the mandate for the Guidelines on CCP recovery and resolution covers only the valuation of cleared contracts subject to termination and not the collateral provided to the CCP to cover margin requirements or default fund contributions for these contracts. Indeed, the collateral is not provided on a per contract basis, but to cover the exposure of a clearing account or a clearing member holistically across clearing services. The collateral provided by members whose contracts are terminated will not be subject to this valuation prior termination. If the termination of contracts triggers a reduction of the required collateral, the CCP should return the relevant collateral as soon as the termination amount is settled, and the contracts are terminated.

3.2.1 Summary of consultation responses

36. There is an overall support for ESMA’s conclusions that “only the outstanding contracts between the CCP and the clearing members on the day of termination” should be included in the termination and that the “termination and valuation as part of position allocation” should capture “only the restated and the new contracts (if any)” in cases “where the contracts have been subject to netting or other post-trade risk reduction measures within the CCP”.

⁶ Article 7(6) of EMIR.

37. It is therefore noted that the termination will have to affect both sides of each contract, and that – due to compression or trading activity - the other side of the defaulter's transaction is often not the original contract anymore.
38. One respondent particularly agreed with the clarification that “CCPs can net economically equivalent contracts and use cross-margining with correlated contracts cleared by the same CCP”.
39. There is also an overall support from respondents to the conclusion that the value of collateral provided to the CCP to cover margin requirements or default fund contributions for the cleared contracts being terminated should fall out of the scope of the proposed methodology.
40. It is therefore an overall support for the suggestion to account for the terminology included in the rulebooks, with the relevant corresponding adjustments if the rulebook and operational processes usually handles those similar but different concepts.
41. However, it was also noted by one respondent that the concept of “contracts” appears to be applicable primarily to derivatives clearing CCPs – and does not acknowledge differences that would apply in the context of securities cash clearing CCPs.

3.2.2 ESMA's feedback

42. Considering the overall support expressed in the consultation responses, ESMA does not propose to change its approach on the scope of the methodology and the concept of “contracts” in the Final Report.

3.3 Re-use of CCP methodology and sequencing

43. Article 29(3) of CCPRRR contains a form of sequencing that should be reflected in the methodology, by stating that the valuation to be undertaken by the CCP in respect of each contract shall be based, as far as possible, as per Article 29(4) of CCPRRR on a fair market price determined on the basis of the CCP own rules and arrangements, unless the resolution authority determines it necessary to use another appropriate price discovery method.
44. The mandate for the Guidelines contained in Article 29(7) of CCPRRR requires ESMA to further specify the methodology to be used by the resolution authority for determining the valuation under 29(3)(a) of CCPRRR. ESMA understands that the resolution authority should determine the valuation by asking the CCP under Article 29(3)(a) of CCPRRR to value each contract. Furthermore, the valuation of each contract shall in accordance with Article 29(4) of CCPRRR be based, as far as possible, on the CCP own rules and arrangements unless the resolution authority determines it necessary to use another price discovery methodology.
45. With this in mind, ESMA suggests that the methodology including the sequencing applied in the Guidelines reflects the CCP methodology. It is noted that one methodology would be the use of the CCP own rules and arrangements, as explicitly stated under Article 29(4) of CCPRRR, and it is also clear that the Guidelines shall *further specify the methodology* including where the CCP own rules and arrangements

would not provide a price that is considered by the resolution authority a fair market price.

46. Hence, ESMA has introduced a methodology based on a two step-approach as contemplated under Article 29(4) of CCPRRR. The CCP's valuation of each contract as stated under Article 29(3)(a) of CCPRRR should identify the fair market price, by firstly applying the methodology contained in the CCP own rules and arrangements, unless the resolution authority decides to use another price discovery method that would be more suitable.
47. However, creating a replica and parallel valuation methods of each contract, as would be the case where the CCP own rules and arrangements are used and set out in the Guidelines, would not be a viable way forward for two reasons, first all CCPs have different rules, hence if such a granularity was envisaged in the Guidelines the CCP own rules and arrangements would also need to be included to ensure consistency, but this is not envisaged by CCPRRR as the Guidelines are only there to further specify the methodology and secondly, to include in Guidelines the actual valuation methods that can be used for all different contracts that could be valued would increase complexity and risk of inconsistency to a level that is not sustainable in a resolution context and would not be a proportionate approach and would not respect the specificities of the CCP.
48. In the valuation the core element is the price hence this should be the focus for the resolution authority and the methodology is to guide the resolution authority in its assessment for an alternative price discovery method to replace the CCP own rules and arrangements when necessary. The Guidelines should therefore further specify the methodology for potential alternative price discovery and valuation methodology and provide for a list of principles and criteria that could be taken into account by the resolution authority to determine that the rules and arrangements of the CCP should not be used.

3.3.1 Summary of consultation responses

49. There is an overall support from all respondents for ESMA's interpretation, i.e., that the resolution authority would re-use the existing CCP valuation methodology, unless it can justify the need to use an alternative price discovery method.
50. One respondent further argued that the predictability of arrangements is of vital importance in any and all phases of operation of central clearing, and valuation methodologies are central to this and that consequently the burden of proof should be on the resolution authority to justify the necessity of any deviation from the existing CCP methodology and alternative methodologies should be used only as a last resort. Along the same line it was noted that there should be little to no reason for deviation from the CCP methodology and in case of deviation this should be evidence-based.
51. One respondent detailed that termination would usually be a fall-back when the auction would not work and that the CCP could not close the defaulter's portfolio in another way which means that the CCP methodology will also not result in fair market prices.
52. Several potential reasons for the auction to fail are envisaged by the respondents including because no auction participant was sufficiently confident in their ability to

price the auction portfolio to actually bid in the auction or the auction portfolio is too big, and the bid price would need to be too far from the mid for anyone to take it on, either because of the size of market risk or the cost of capital. While this situation could be managed by better design of the auction portfolio, the prices that could be taken from the relevant trading venue(s) would not be accurate as the valuation based on trades in small quantities would not be a representation of the fair value of the larger contracts in the auction portfolio.

53. One respondent mentioned that in any case the resolution authority should review the CCP methodology to value contracts as part of the resolvability assessment.

3.3.2 ESMA's feedback

54. Considering the overall support expressed in the consultation responses, ESMA does not propose to change in the Final Report its approach on the re-use of the valuation methodology of the CCP unless the resolution authority deems it necessary to use another appropriate price discovery method.

3.4 Valuation

3.4.1 Using BRRD Valuation methodology

55. ESMA has assessed if there would be synergies in using part of the valuation methodology as established by the BRRD. Whilst there are similarities, there are also clear differences in how cleared contracts are valued in a resolution scenario, depending on which entity is in resolution. BRRD RTS determines how a contract with a CCP should be valued, primarily relying on the CCP default management procedures. Both legal acts (the BRRD RTS and the Guidelines under CCPRRR) are valuing the same contract but from slightly different angles, one from the angle of the entity under resolution being a clearing member and the other from an angle where the CCP is the entity under resolution.
56. ESMA has, in the process of establishing the methodology for the valuation of contracts, considered to what extent the Guidelines should reflect the valuation methodology under the BRRD RTS. For example, to use the default management methodologies of the CCP may be less useful where the CCP's management of risk may have been a contributing factor to the CCP's resolution. Another aspect to note would be where the default methodology may not work as intended or may not result in the desired outcome, for example an auction may well not result in the possibility to shift defaulted trades to other clearing members (or clients) hence the methodology applied may not be a viable tool to value the transactions to be terminated. One main difference is also the scope of the methodology, where the BRRD RTS shall value contracts on a net basis whereas the CCPRRR shall value on a contract basis.
57. ESMA notes also the sequencing for the BRRD RTS where a termination amount first shall be sought based on the CCP default procedures and as a derogation to this, the resolution authority may decide to apply the statutory methodology as set out in the RTS, after consulting the CCP's competent authority, in two cases: (a) the CCP does not provide the valuation of the early termination amount within the deadline set by the resolution authority; and (b) the CCP's valuation of the early termination amount is not in line with the CCP default procedures set out in compliance with Article 48 of EMIR. It is noted however that CCPRRR leaves to the resolution authority more room to deviate from the CCP's rules, i.e., if it finds necessary to use another appropriate price discovery method.
58. The Guidelines (see Annex IV) have been developed taking the BRRD RTS into account, while at the same time acknowledging and catering for differences stemming from the CCPRRR mandate and the nature of the business activities of CCPs.

3.4.2 Process and preparedness

59. As soon as the resolution authority decides to terminate contracts, it will need to quickly source and assess the information needed to implement the methodology for valuation the contracts. For this purpose, the resolution authority should also prepare and have appropriate arrangements in place, including information that is available to the CCP and information that should be obtained from another source.
60. The resolution authority should ask the CCP under resolution to provide the value of each contract. In this respect the CCP should provide information to the resolution authority necessary to assess the valuation undertaken by the CCP and assess its appropriateness, including the required documents, data or justifications. The resolution authority should set a deadline to the CCP to provide the information for this purpose.
61. The resolution authority should assess, as part of the resolution planning, the rules and arrangements of the CCP and seek to identify constraints related to the valuation prior to the termination of contracts.
62. A valuation under Article 29 of CCPRRR entails:
- (a) A decision on resolution tools: a provisional or definitive valuation has been undertaken to inform of the resolution action and if the position allocation tool is envisaged to be used.
 - (b) The valuation of each contract shall be provided by the CCP in accordance with the methodology determined by the resolution authority (Step 1 and Step 2).

3.4.3 Using the CCPs terms and arrangements (Step 1)

63. The resolution authority, as noted above, should assess the possibility to use the CCP rules and arrangements in valuing each contract as its own methodology. ESMA notes that the CCP already has a wide range of methodologies and procedures that could be used in a resolution phase where the resolution authority has decided to terminate contracts to return to a matched book and which are regularly reviewed and assessed in the context of the day-to-day supervision of compliance with CCPRRR.
64. ESMA notes that the following type of valuation methods may be used by the CCP in the valuation of a contract:
- (a) a valuation based on a price set according to the CCP rules for the purpose of early termination of contracts where the price could be determined based on either of the following;
 - i. the end-of-day closing or settlement price of the terminated contract for the purpose of daily valuation of positions or daily settlement of profit and loss resulting from the contracts, as long as this represents a fair market price;
 - ii. the mid bid-ask price of the terminated contract at a trading venue cleared by the CCP, as long as this represents a fair market price; and
 - iii. a theoretical price calculated to reflect a fair market price for the terminated contract using the CCP's models and procedures, as long as this represents a fair market price; or

(b) a valuation included in the CCP's default management procedures, including prices of executed transactions, prices of auctions and prices of provided quotes, as long as these represent a fair market price.

65. For this purpose, the resolution authority should ensure that the prices stemming from CCP rules and arrangements result in a fair market price relevant for the early termination of contracts for which ESMA has set out further guidance that might assist the resolution authorities in their assessment.

3.4.4 Limitations in using the CCP rules and arrangements

66. Similarly to the possibility foreseen in Article 29(4) of CCPRRR for the valuation not to be based on the CCP own rules and arrangements to determine the fair market price, ESMA suggests providing some guidance that resolution authority might consider when assessing whether to deviate from applying the CCP own rules and arrangements where the resolution authority considers it necessary. The focus here again being on the price which is the core element of the valuation.

67. CCPs clear a very wide and diverse range of products in different asset classes and are expected to have rules and arrangement including detailed and tailored methodologies to value cleared contracts considering the market conditions and the individual contracts' characteristics.

68. Any rules and arrangement which purpose or result is not to provide the fair value of contracts in a situation of termination under resolution would not be fit for the purpose of the valuation prior to termination. For example, rules and arrangements used to set the obligations of defaulters in case of default may include costs such as penalties, additional costs incurred during the implementation of default management procedures, additional costs related to the size and direction of a specific position, etc. and are meant to reflect the cost to the CCP and accommodate its allocation as opposed to ensure a fair valuation of a contract. The valuation of contracts prior to termination is a fair market valuation and is not meant to cater for the allocation of resolution losses.

69. The resolution authority should, where using the methodology of the CCP, ensure that the identified price would qualify as a fair market price suitable for the termination of contracts.

70. ESMA has identified the following principles that could assist the resolution authority in assessing the valuation undertaken using the CCP own rules and arrangements.

(a) The termination price should reflect the market conditions prevailing on a day and time that is as close as possible to the day and time of the termination of the contracts;

(b) A fair market price should be understood as a price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the day and time of the termination of contracts;

(c) When terminating multiple contracts based on common or closely related risk factors, the respective termination prices should respect, as far as possible, the

economic relationship between the different contracts under the prevailing market conditions;

(d) Where the valuation is based on a market price, the price should reflect the information available at the time of termination, and should be a result of quotes or transactions reflecting the interests of a diverse group of buyers and sellers within a liquid market;

(e) Where the valuation is performed on the basis of modelled prices, the model should, to the extent possible, be validated by a qualified party to ensure that it accurately produces appropriate prices, while any input parameters representing market prices should also be assessed against the considerations under these Guidelines;

(f) The determination of the termination price should not be used as a tool to allocate costs of the CCP to clearing members, such as allocating the costs from the default of a clearing member to non-defaulting clearing members.

3.4.5 Using an alternative appropriate price discovery method (Step 2)

71. Where the resolution authority considers that, by applying the Guidelines, it is necessary to use an alternative appropriate price discovery method, the Guidelines cater for five price discovery methods that could be applied by the CCP at the instruction of the resolution authority. In this situation the resolution authority would follow the fall-back valuation options established in the Guidelines, covering different valuation alternatives to use to value the termination amount of a contract not using the rules and arrangements of the CCP.
72. The Guidelines cannot be as detailed as each CCP valuation methodology but will define different price discovery methods and can further specify the nature of this “fall-back” valuation and what it should contain.
73. The Guidelines will further specify how to determine this valuation so that it is based, as far as possible, on a fair market price using such appropriate price discovery methods. For this purpose, the Guidelines provide an exhaustive list of prices or data that can be used.
74. Under the BRRD RTS, the size and direction of a specific position may be part of the determination of the ‘close-out amount’⁷. In the context of CCPRRR the valuation for termination of contracts should be based on a fair market price irrespective of any other replacement costs borne by the CCP or the counterparties, e.g., any costs related to the direction or size of specific positions.

⁷ The “BRRD RTS Valuation of Derivatives”, has opted to determine the ‘close-out amount’ as the prices of replacement trades, where a counterparty has provided evidence of commercially reasonable replacement trades within the set deadline. Where a counterparty has not provided such trades or the trades are not deemed as concluded on commercially reasonable terms, the close-out amount is determined on the basis of (a) mid-market end-of-day prices, (b) mid-to-bid or mid-to-offer, depending on the direction and (c) adjustments to reflect the liquidity, size of exposure relative to market depth, as well as possible model risk. Hence

75. Where the resolution authority of a CCP decides to apply an alternative appropriate price discovery method to identify the price to undertake the valuation of a contract, the resolution authority should use one of the following methods in the following order:
- (a) Where other CCPs clear the same contract, the end-of-day closing or settlement prices of such a contract as set by the relevant CCPs, with due regard to possible basis between CCPs to ensure a fair market price;
 - (b) Where a fungible or an economically equivalent contract is traded at a trading venue that is not cleared by the CCP, the mid bid-ask price of such a contract as long as it represents a fair market price;
 - (c) Prices provided by third-parties, such as observable market prices or quotes from market-makers as long as these represent a fair market price;
 - (d) A theoretical price calculated by an independent valuer to reflect a fair market price for the terminated contract; and
 - (e) A combination of two or more of the methods under (a) to (d) which would ensure a fair market price.
76. ESMA also notes that the principles set out above in paragraph 70 should be applicable here.

3.4.6 Summary of consultation responses

77. There is an overall support from all respondents for ESMA's interpretation, i.e., that the resolution authority would re-use the existing CCP valuation methodology, unless it deems necessary to use an alternative price discovery method. Several respondents stressed the fact that the use of the alternative price discovery should be a last resort in very specific circumstances.
78. One respondent further argued that the predictability of arrangements is of vital importance in any and all phases of operation of central clearing, and valuation methodologies are central to this and that consequently the burden of proof should be on the resolution authority to justify the necessity of any deviation from the existing CCP methodology and alternative methodologies should be used only as a last resort. Along the same line another one noted that there should be little to no reason for deviation from the CCP methodology and in case of deviation this should be evidence-based. It should be based on objective criteria to avoid any distortion of incentive structure embedded in the CCP's actions such as dis-incentivisation for clearing members to participate to auctions.
79. Furthermore, several respondents considered the reference to "fair market price" is paramount even if defining this fair market price would most probably be very difficult even using the alternative price discovery methods as this would mean that the usual procedures have failed and ultimately the fair market price is the value that someone is willing to pay and will depend on the market conditions of each particular case.
80. As to the use of CCPs valuation, a respondent disagreed with using an end-of-day closing or settlement price unless the termination is executed at the same time of the end-of-day or closing valuation. Otherwise, it is considered that termination would very likely allocate losses to clearing participants subject to termination, as the market price

will likely have moved considerably between a closing prices and termination next day, especially in a stressed market situation.

81. In line with the above, the respondent agreed with the principle that “the termination price should reflect the market conditions prevailing on a day and time that is as close as possible to the day and time of the termination of the contracts” and propose that “as close as possible” should be a very short time (minutes, not hours).
82. The respondent added that settlement prices of other CCPs are not necessarily representative if the reason for the termination is a very large portfolio where the fair value would have to include the cost of liquidating a concentrated portfolio. Also, even though another CCP did not suffer a default, their settlement prices of other CCP which did not fail could be based on very illiquid trading.
83. The respondent further noted that using prices from other trading venues could potentially have the same issues as using settlement prices of other CCPs: trading could be too limited to produce fair prices that could be applied to large terminations.
84. Likewise, it is noted that prices obtained from market makers would not necessarily be based on real transactions. While market makers will have an understanding of concentration effects, it will be difficult to locate a market maker for the relevant products which will not be affected by the terminations and the ability to provide independent prices.
85. Moreover, the respondent believed that theoretical prices could be helpful if the calculation is straightforward (interest rate swaps prices determined from interest rate curves based on futures prices) but could be questionable if these models rely on inputs that have to be estimated (e.g., valuing swaptions where some kind of volatility estimate is required). Acknowledging the difficulties in finding fair market prices, it concluded on the appropriateness of the methods suggested by ESMA, including the order.

3.4.7 ESMA’s feedback

86. ESMA welcomes the careful assessment undertaken by the respondents and generally agrees with the reflections made but also noting the overall support expressed in the consultation responses, ESMA does not propose to change its approach on the valuation methodology and alternative price discovery methods in the Final Report.

4 Annexes

Annex I: Legislative mandate to develop the Guidelines

Articles 29(3), 29(4) and 29(7) of CCPRRR

[...]

3. *Prior to the termination of any of the contracts referred to in paragraph 1, the resolution authority shall take the following steps:*

(a) require the CCP under resolution to value each contract, and update the account balances of each clearing member; [...]

The clearing members shall, without undue delay, communicate the application of such tool to their clients and the way in which such application affects them.

4. *The valuation referred in point (a) of paragraph 3 shall be based, as far as possible, on a fair market price determined on the basis of the CCP own rules and arrangements, unless the resolution authority deems necessary the use of another appropriate price discovery method.*

[...]

7. *ESMA shall by 12 February 2022 issue guidelines in accordance with Article 16 of Regulation (EU) No 1095/2010 further specifying the methodology to be used by the resolution authority for determining the valuation referred in point (a) of paragraph 3 of this Article.*

Annex II: Cost and Benefit analysis

1. Introduction

Pursuant to seventh paragraph of Article 29 of CCPRRR, ESMA shall, by 12 February 2022, issue guidelines in accordance with Article 16 of Regulation (EU) No 1095/2010 further specifying the methodology to be used by the resolution authority for determining the valuation of contracts prior to their termination.

Article 16 of the ESMA Regulation requires ESMA, where appropriate, to analyse the potential costs and benefits relating to proposed Guidelines. It also states that cost-benefit analyses must be proportionate in relation to the scope, nature and impact of the proposed Guidelines.

The objective of performing a cost-benefit analysis is to assess the costs and benefits of the various policy or technical options which were analysed during the process of drafting the Guidelines.

The Guidelines included in this final report are of a mandatory nature, i.e., they are envisaged in CCPRRR in order to ensure uniform, consistent and coherent application of Union Law.

In carrying out a cost-benefit analysis on the Guidelines it should be noted that the main policy decisions have already been taken under the primary legislation (CCPRRR) and the impact of such policy decisions have already been analysed to some extent by the Impact Assessment by the European Commission⁸.

2. Cost-benefit analysis

Below is detailed the different corresponding policy options on how to promote convergence and resolution practices regarding the methodology to be used for determining the valuation of contracts prior to their termination as referred to in Article 29(7) of CCPRRR.

Specific objective	The Guidelines shall promote convergence of supervisory and resolution practices regarding valuation prior to termination by further specifying the methodology to be used by the resolution authority for determining the valuation of contracts prior to their termination.
Policy option 1	To specify the methodology that should be used by resolution authorities for determining the valuation of contracts prior to termination across the board i.e., for all types of contracts/products cleared by all EU CCPs going into a fair amount of details.
How would this option achieve the objective?	This option would likely meet the mandate as it would promote convergence of supervisory and resolution practices regarding the valuation of contracts prior to termination for all contracts and with a significant granularity.

⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD%3A2016%3A0368%3AFIN>

Policy option 2	To rely on the valuation methodologies that the CCPs have in place and which are subject to ongoing supervision and scrutiny as per EMIR and CCPRRR and only describe and cover cases where this would lead to using unfair market prices and set a list of alternative price discovery method.
How would this option achieve the objective?	This option would likely meet the mandate as it would promote convergence of supervisory and resolution practices regarding the valuation of contracts prior to termination relying on ongoing existing methodologies that are shared and scrutinised in the supervisory and resolution colleges and fora gathering all relevant authorities.
Which policy option is the preferred one?	The policy option 2 is the preferred one as it strikes a balance between promoting convergence whilst not being too prescriptive or granular and relying on supervisory convergence fora ongoing action and providing enough flexibility.
Is the policy chosen within the sole responsibility of ESMA? If not, what other body is concerned / needs to be informed or consulted?	ESMA is responsible for issuing the Guidelines and the mandate given to ESMA is of a mandatory nature, i.e., the Guidelines are envisaged in CCPRRR in order to ensure uniform, consistent and coherent application of Union Law.

Impacts of the proposed policies:	
Policy option 1	
Benefits	It would be fairly prescriptive and thus allow for maximum convergence.
Regulator's costs	Probably quite high as the resolution authority would have to implement the full methodology and ensure that it can also converge with the result of the CCP valuation methodology.
Compliance costs	The CCP could have significant compliance cost to demonstrate that the methodology it used for its valuation is consistent with the one described in the Guidelines and use it to update the account balance of its clearing members.
Policy option 2	
Benefits	It relies on the supervisory convergence fora ongoing action and provides flexibility and adaptability to each CCP.

Regulator's costs	Probably quite reasonable as the resolution authority would just have to rely on the long lasting CCP valuation methodology and only depart from it in very specific cases.
Compliance costs	The CCP would not have significant compliance cost as the methodology by default would be the one it has implemented.

4.1.1 Summary of consultation responses

Option 2 is generally supported as respondents believe that altering methodologies during resolution would introduce an unnecessary inconsistency of approach and could conceivably introduce distortions in terms of incentives.

One respondent restated that, Option 2 seemed reasonable as long as the valuation methodologies that the CCPs have in place are strongly preferred and that cases in which alternative price discovery methods can be used are very limited in scope and evidence-based.

Respondents did not advocate for a different approach.

4.1.2 ESMA's feedback

Considering the answers to the public consultation, ESMA does not propose to change its approach in the Final Report.



Annex III: Advice of the Securities and Markets Stakeholder Group

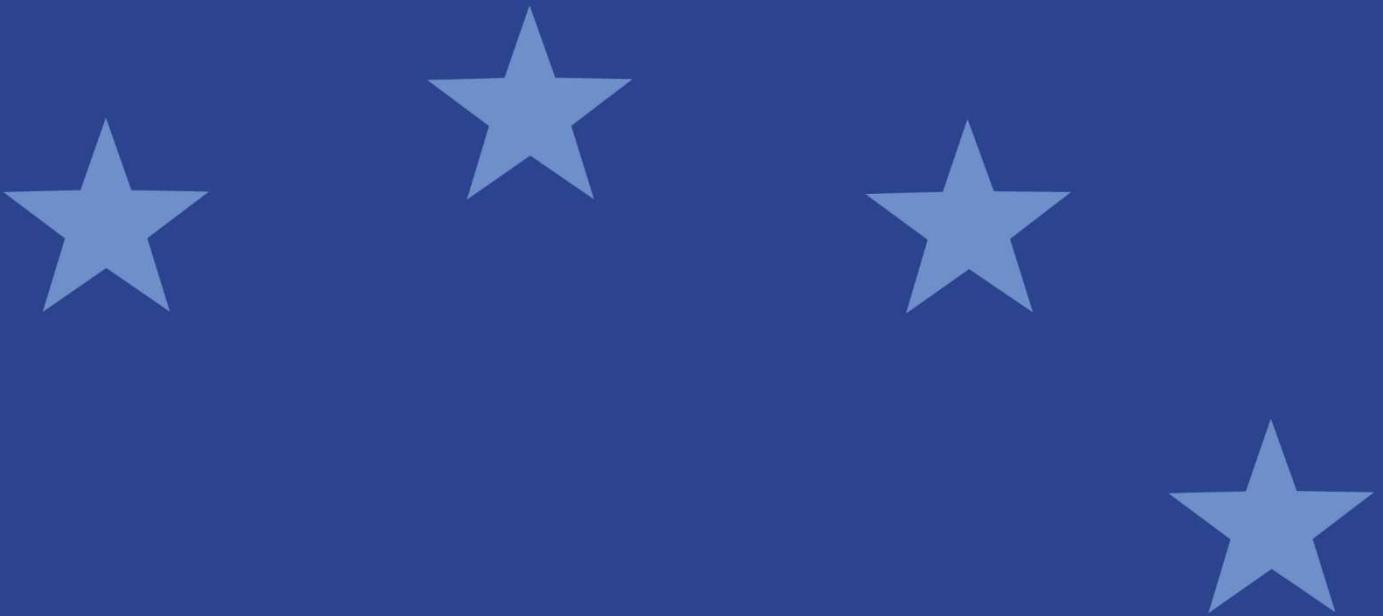
In accordance with Article 16 of the ESMA Regulation, ESMA has requested the advice of the Securities and Markets Stakeholder Group (SMSG). The SMSG has not provided any comment.



Annex IV: Guidelines on valuation methodology

Guidelines

On the methodology to be used by the resolution authority for determining the valuation of contracts prior to their termination as referred to in Article 29(1) of CCPRRR.



1 Scope

Who?

1. These Guidelines apply to Resolution Authorities.

What?

2. These Guidelines further specify the methodology to be used by the resolution authority for determining the valuation of contracts prior to their termination as referred to in Article 29(1) of CCPRRR.

When?

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

2 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 ⁹ .
EMIR	Regulation (EU) 648/2012 of 4 July 2012 of the European Parliament and Council on OTC derivatives, central counterparties and trade repositories ¹⁰ .
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 ¹¹ .
RTS 153/2013	Commission Delegated Regulation (EU) No 153/2013 of 19 December 2012 on requirements for central counterparties (OJ L 52, 23.2.2013).
RTS 152/2013	Commission Delegated Regulation (EU) No 152/2013 of 19 December 2012 on capital requirements for central counterparties (OJ L 52, 23.2.2013).

Abbreviations

EC	European Commission
EEA	European Economic Area
ESFS	European System of Financial Supervision
ESMA	European Securities and Markets Authority
EU	European Union

⁹ OJ L 22, 22.1.2021, p. 1–102

¹⁰ OJ L 201, 27.7.2012, p.1

¹¹ OJ L 331, 15.12.2010, p. 84



Definitions

4. Unless otherwise specified, the terms used in this Final Report have the same meaning as in CCPRRR, EMIR and the RTS 152/2013 and 153/2013.

3 Purpose

5. These Guidelines are based on Article 29(7) of CCPRRR. The objective of these Guidelines is to promote the convergence of supervisory and resolution practices regarding the methodology to be used by the resolution authority for determining the valuation of contracts prior to their termination as referred to in Article 29(1) of CCPRRR.
6. In particular, they aim to promote the convergence of supervisory and resolution practices with respect to this valuation methodology. For this purpose, Guidelines 1, 2, 3 and 5 cover respectively the process of the valuation, its scope, the valuation according to the rules and arrangements of the CCP which should be considered first and then the valuation using alternative price discovery methods and sources if deemed necessary.
7. Furthermore, given the need to provide guidance on the decision not to use the CCP rules and arrangements, the requirement for the CCP to provide information to the resolution authority and the latter's preparedness to perform its assessment to ensure consistent, efficient and effective resolution practices for this methodology, the scope of the final Guidelines is expanded beyond the scope set forth by Article 29(7) of CCPRRR. Thus, ESMA has decided to issue Guidelines 4, 6 and 7 under Article 16(1) of the ESMA Regulation in line with which ESMA may issue guidelines with a view to establishing consistent, efficient and effective supervisory practices within the ESFS, and to ensuring the common, uniform and consistent application of Union law.

4 Compliance and reporting obligations

4.1 Status of the Guidelines

8. In accordance with Article 16(3) of the ESMA Regulation, competent authorities (being the resolution authorities designated pursuant to Article 3 of CCPRRR) 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 and resolution frameworks as appropriate.

4.2 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.

5 Guidelines on valuation methodology

Guideline 1: Process

1. The resolution authority should require the CCP under resolution to value each contract to be terminated. The value of each contract should be calculated as a termination amount covering the amount of losses or gains to be collected or paid by the CCP in order to reflect the current exposure implied by the terms of the contract on the basis of a termination price determined for this purpose.
2. In accordance with Article 29(7) of CCPRRR the resolution authority should determine the termination price for each contract that is to be terminated under Article 29 of CCPRRR in accordance with these Guidelines. A single termination price should be determined per contract and used as the termination price for all positions on the same contract being terminated.
3. The termination price of the contract should be determined as a fair market price reflecting the economic equivalent of all material terms of the terminated contract and the option rights of the parties in respect of this contract.

Guideline 2: Scope

1. For the purposes of these Guidelines a contract to be valued prior to the termination under the loss and allocation resolution tool pursuant to Article 29 of CCPRRR should be an outstanding contract cleared by the CCP.

Guideline 3: Valuation according to the rules and arrangements of the CCP

1. The methodology to be used by the resolution authority for determining the valuation referred to in Article 29(3)(a) of CCPRRR should take into account the valuation methodology defined in the CCP own rules and arrangements. The valuation should be based, as far as possible, on a fair market price determined on the basis CCP own rules and arrangements, unless the resolution authority determines it necessary to use another appropriate price discovery method.

2. When the resolution authority uses the CCP own rules and arrangements to value a contract under Article 29 of CCPRRR, the resolution authority may consider consulting the following:

- a) The risk committee of the CCP under resolution;
- b) Persons or committees tasked by the CCP under resolution to take part in the resolution management process.

Guideline 4: Decision not to use the rules and arrangements of the CCP

1. The resolution authority may consider it necessary to use an alternative price discovery method to determine the price where it determines that, by using the methodology of the CCP, the identified price would not qualify as a fair market price, suitable for the termination of contracts under Article 29 of CCPRRR.

2. ESMA has identified the following principles that could be used by the resolution authority in assessing the valuation undertaken using the CCP own rules and arrangements:

- a) The termination price should reflect the market conditions prevailing on a day and time that is as close as possible to the day and time of the termination of the contracts;
- b) A fair market price should be understood as a price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the day and time of the termination of contracts;
- c) When terminating multiple contracts based on common or closely related risk factors, the respective prices should respect, as far as possible, the economic relationship between the different contracts under the prevailing market conditions;
- d) Where the valuation is based on a market price, the price should reflect all the information available at the time of termination, and should be a result of quotes or transactions reflecting the interests of a diverse group of buyers and sellers within a liquid market;
- e) Where the valuation is performed on the basis of modelled prices, the model should, to the extent possible, be validated by a qualified party to ensure that it accurately produces

appropriate prices, while any input parameters representing market prices used to calculate the modelled prices should also be assessed against the considerations under this guideline;

f) The determination of the termination price should not be used as a tool to allocate costs of the CCP to clearing members, such as allocating the costs from the default of a clearing member to non-defaulting clearing members.

Guideline 5: Valuation using alternative price discovery methods and sources

1. When the resolution authority does not deem it appropriate to apply the CCP own rules and arrangements, it should determine the valuation by using the following alternative price discovery methods in the following order and inform the CCP accordingly:

- a) Where other CCPs clear the same contract, the end-of-day closing or settlement prices of such a contract as set by the relevant CCPs, with due regard to possible basis between CCPs to ensure a fair market price;
- b) Where the same contract is traded at a trading venue that is not cleared by the CCP, the mid bid-ask price of such a contract;
- c) Prices provided by third-parties, such as observable market prices or quotes from market-makers as long as these represent a fair market price;
- d) A theoretical price calculated by an independent valuer to reflect a fair market price for the terminated contract; and
- e) A combination of two or more of the methods under (a) to (d) which would ensure a fair market price.

2. The resolution authority should explain its choice when it decides to use a certain alternative pricing methodology.

3. The resolution authority should consider the principles as set out in Guideline 4(2).

Guideline 6. Requirement to provide information

1. The resolution authority should ask a CCP under resolution to provide the information needed, together with any relevant documents, data or justification needed to assess the value of the contract provided by the CCP. The resolution authority should set a deadline to the CCP to provide the information for this purpose.

2. The resolution authority should ask a CCP to provide the information under paragraph 1 before deciding to terminate contracts in order to consider the potential implications from partially or fully terminating cleared contracts, inform the decision on the appropriate resolution action to be taken and where the loss and position allocation tools are used, inform the decision on the extent of losses to be applied against affected creditors' claims, outstanding obligations or positions in relation to the CCP and on the extent and necessity of a resolution cash call. The resolution authority may set a deadline to the CCP to provide the information for this purpose.

Guideline 7. Assessment by the resolution authority

1. The resolution authority should prepare and have the arrangements needed to be able to source and assess in a timely manner the information needed to determine the methodology for valuation prior to termination.
2. The resolution authority should have reliable access to information that may need to be collected from the CCP and from sources other than the CCP.
3. The resolution authority should also have the computational and analytical tools needed to quickly analyse the information received and decide on the appropriate valuation methodology.
4. As part of the resolution planning, the resolution authority should assess the CCP own rules and arrangements and seek to identify constraints related to the valuation prior to the termination of contracts.