European Securities and Markets Authority

Peer Review under EMIR Art. 21

Supervisory activities on CCPs' Margin and Collateral requirements

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Acronyms used

CCP	Central Counterparty
EMIR	Regulation (EU) 648/2012 of the European Parliament and Council on OTC derivatives, central counterparties and trade repositories – also referred to as — EMIR
ESMA	The European Markets and Securities Authority
NCA	National Competent Authority
Q&A	Question and Answer
RTS	Regulatory Technical Standards
RTS on CCPs	Commission Delegated Regulation (EU) No 153/2013

1 Executive Summary

Reasons for publication

The European Securities and Markets Authority (ESMA) is publishing this report pursuant to Article 21 of Regulation (EU) No 648/2012 (EMIR) which provides that in the area of central counterparties (CCP) supervision ESMA shall fulfil a coordination role between competent authorities and across colleges with a view to building a common supervisory culture and consistent supervisory practices, ensuring uniform procedures and consistent approaches, and strengthening consistency in supervisory outcomes. For the purposes of such a coordination role, ESMA is required, at least annually, to conduct a peer review analysis of the supervisory activities of all competent authorities in relation to the authorisation and the supervision of central counterparties (CCPs) in accordance with Article 30 of Regulation (EU) No 1095/2010 (ESMA Regulation).

Contents

This peer review focuses on supervisory activities of National Competent Authorities (NCAs) on CCPs with respect to margin and collateral requirements set out in EMIR, conducted in relation to authorisations provided under EMIR Article 14 or 15, the validation of significant changes to risk model and parameters under EMIR Article 49, and regular reviews under on-going supervision, including at least an annual review, under EMIR Article 21.

This peer review is based on a specific methodology developed consistently with the methodology for regular peer reviews under Article 30 ESMA Regulation, whereby the review is conducted by ESMA staff relying on the responses by the NCAs to a predefined questionnaire and, where relevant, tailored follow-up questions. The questionnaire and the findings of the peer review were analysed, discussed and agreed among the relevant CCP experts from NCAs within the Post-Trading Standing Committee of ESMA.

Accordingly, this report provides an overview of the approaches followed by NCAs and presents ESMA's assessment of the degree of convergence reached by NCAs. In particular, the report highlights several areas where divergences emerged with respect to the NCAs' supervisory approach in assessing CCPs' compliance with certain margin and collateral requirements, proposing where relevant follow-up actions. Furthermore, it identifies, for future discussions, items where supervisory convergence could be further enhanced, and proposes good practices that emerged from the NCAs' responses. Finally, it also identifies a possible case of non-compliance with EMIR for further follow-up.

Next Steps

This report is for information purposes only. ESMA will follow up on the findings listed in this report in order to identify, where relevant, the most appropriate tool to further enhance supervisory convergence with respect to the divergences and items therein reported.

2 Introduction

1. Article 21(6)(a) of Regulation EU No 648/2012 (EMIR) requires ESMA to conduct at least annually a peer review analysis of the supervisory activities of the competent authorities in relation to the authorisation and the supervision of CCPs in accordance with Article 30 of Regulation (EU) No 195/2010 (ESMA Regulation).

2. In September 2015, the ESMA Board of Supervisors approved the mandate for the 2015 EMIR Peer Review (ESMA/2015/BS/173 Annex 4), aiming to assess the effectiveness of supervisory practices put in place by authorities in order to assess CCPs' compliance with the provisions of Articles 41 (Margin requirements) and 46 (Collateral requirements) of EMIR and related regulatory technical standards , namely Articles 24-28 and Articles 37-42 of Commission Delegated Regulation (EU) No 153/2013 on requirements for CCPs (RTS on CCP requirements), thereafter referred to as RTS.

3. The Peer Review covered the relevant National Competent Authorities (NCAs) of CCPs authorised under EMIR at 1 September 2015. By this date, 16 CCPs were authorised under EMIR in the EU, while a seventieth CCP authorised in the UK was operating under the EMIR transitional regime, pending its authorisation under EMIR. The Peer Review thus covered the NCAs of the 12 Member States where the above mentioned 17 CCPs are established, namely: AT, DE, ES, FR, GR, HU, IT, NL, PL, PT, SE and UK.

4. The Peer Review covered the NCAs' supervisory activities conducted from the date of completeness of the relevant CCP's application for authorisation until August 2015 (the reporting period), with respect to the assessment of a CCP's compliance with the requirements in Articles 41 and 46 of EMIR and related RTS, in respect of: i) the first Risk Assessment Report performed by an NCA in connection to the initial authorisation of a CCP under Article 14 of EMIR; ii) the yearly review (performed during this period) of the CCP compliance with the scope requirements pursuant to Article 21 of EMIR and, where relevant; iii) the Risk Assessment Report (performed during this period) in connection to an extension of the authorisation under Article 15 of EMIR or the validation of significant changes to risk models and parameters (performed during this period) under article 49 of EMIR.

5. The Peer Review aimed to identify: a) divergences in the supervisory approach adopted by competent authorities, b) good practices, c) items for future discussions on how to enhance supervisory convergence, where divergences emerged, and d) possible cases of non-compliance with the EMIR provisions or ESMA common principles and criteria.

2.1 NCAs' contribution

6. In line with the methodology developed for the 2015 Peer Review, ESMA developed a self-assessment questionnaire (the questionnaire) that the PTSC member authorities covered by the Peer Review were invited to answer by 30 November 2015.

7. Where a Member State had assigned several national competent authorities under Article 22 of EMIR, the PTSC member authority from this Member State coordinated with the other respective national authorities with relevant responsibilities for the supervision of the CCPs established in that jurisdiction, so that the contribution of a PTSC member authority could represent the coordinated view of all relevant competent authorities in that Member State.

8. The preliminary review of the initial responses showed that NCAs had a diverse approach in replying to the questionnaire, providing heterogeneous granularity of information and explanation of their supervisory approach. This has required follow-up requests for additional information and clarification to individual NCAs during the summer of 2016, in particular to those NCAs that provided little details in their responses, in order to ensure that the results of the peer review were not biased by the different granularity of the NCAs' responses but rather reflect the actual supervisory approach applied by the NCAs.

9. Follow-up questions were sent to NCA on 2 August with deadline for replying by 30 August 2016, this deadline was further extended until 15 September 2016.

2.2 ESMA staff review

10. The Peer Review has been conducted by ESMA staff relying on the responses by the National Competent Authorities (NCAs) to the questionnaire and the follow-up requests mentioned above.

11. Although the peer review focused on the competent authorities' supervisory activities related to the assessment of the compliance of their CCPs with EMIR requirements on margin and collateral policies, ESMA staff also took into account the respective CCPs' margin and collateral policies in order to identify where competent authorities have implemented a convergent approach in assessing the compliance of CCPs, i.e. whether the same practices were applied by different NCAs. Where inconsistencies or different interpretations emerged, their materiality was assessed. Where relevant, ESMA staff took into account the information on the CCPs' margin and collateral policies that ESMA has received as member of CCP colleges, including the initial application for the authorisation under Article 14 of EMIR and the subsequent applications for extension of activities under Article 15 of EMIR and for significant changes to risk models and parameters under Article 49 as well as CCP data regularly shared within the college.

12. The findings of the peer review are presented in this report, which does not intend to provide an exhaustive representation of all responses submitted by the NCAs, but to provide an overview of the approaches followed by the majority of NCAs highlighting any emerging divergences in an effort to identify potential grounds for further supervisory convergence, best practices and, where applicable, identify possible cases of non-compliance. Section 3 presents a general overview of NCAs' supervisory activities conducted in the reporting period and organisational set- up. Section 4 and Section 5 presents the outcome of the peer review of specific supervisory activities, respectively, on margin requirements and collateral requirements.

3 General Overview

3.1 NCA's supervisory activities

13. EMIR requires NCAs to assess and review the compliance of CCPs with the EMIR requirements, including on margin and collateral requirement, under Article 17(4) with respect to authorisations provided under Article 14 or 15, under Article 49 with respect to the validation of significant changes to risk model and parameters, and under Article 21 with respect to regular reviews under on-going supervision, including at least an annual review. The NCAs were asked to provide responses to a number of questions on their supervisory approach and practices with respect to the above supervisory activities, as well as on their organisational set-up.

14. The overview of the responses describing the supervisory practices of different NCAs is provided here separately for each type of activities, while the main findings are summarised in the following section.

Risk assessment for the initial authorisation under article 14 of EMIR

15. All NCAs assessed at least once the respective CCPs' compliance with the Margin and Collateral requirements, namely in connection to the risk assessment produced for the CCP college at the initial authorisation of the CCP under EMIR.

16. All NCAs used the template for the risk assessment developed by ESMA as best practices, which ensured overall convergence on the approach on how to conduct the risk assessment, although it could not avoid differences on how to assess compliance with the various requirements.

Annual review under article 21 EMIR

17. Most NCAs reviewed their risk assessment once more in connection to the annual review under Article 21 EMIR, when due within the reporting period (ending on 31 August 2015). Indeed, the 9 NCAs supervising the 11 CCPs that were authorised before 31 August 2014 had to conduct an annual review within the first year from the CCP's initial authorisation. Among these, only 5 annual reviews were completed within the reporting period (2 annual reviews within one year from the initial risk assessment; other 2 annual reviews within one year from the authorisation; another annual review after one year but still within the reporting period), while other 3 annual reviews were completed only in October 2015 with a delay ranging from 3 to 7 months from the initial authorisation (6 to 23 months from the initial risk assessment).

18. Three NCAs did not complete the annual review at the time of their response to the questionnaire.

19. For the sake of completeness, it is noted that the NCAs of the 5 CCPs that were authorised after 31 August 2014 completed their first annual review, except one: 3 of them within one

year from the initial risk assessment, while the fourth NCA, completed the first annual review with a delay up to 7 months from the initial authorisation.

20. From the responses to the questionnaire, it is not obvious whether the NCAs included in the annual review a re-assessment of their supervised CCPs' compliance with Margin and Collateral requirements in all cases. Through its participation in CCP colleges, ESMA staff noted though that NCAs had diverse approaches on how to conduct the annual review under Article 21 of EMIR. Some NCAs focused on the changes that occurred during the reference period; others adopted a risk-based approach and focused on selected topics or previously identified areas of concern/improvements; finally, a third group undertook a more comprehensive review leading to an update of the initial risk assessment. From this picture, it appears that there is no consistency of the practices among NCAs. Some NCAs already asked ESMA to provide guidance on how to conduct the annual review. While the overall approach to the annual review is outside the scope of the current peer review, ESMA recognises the need to promote convergence in this respect and proposes below good practices based on the college experience.

Extension of Authorisation under Article 15 EMIR

21. During the reporting period, five NCAs deemed that their supervised CCPs' proposals for 10 new services and activities required an extension of authorisation under Article 15 EMIR. These NCAs then assessed the compliance of these proposals with EMIR, including margin and collateral requirements, in connection to the risk assessment they submitted to the respective CCP college.

22. By 31 August 2015, six extensions of authorisation were already granted.[1] Another two were granted by the time of the NCAs' response to the questionnaire, while the remaining two proposals were still under review. From these latter two, one was submitted by the CCP whose EMIR authorisation was still pending and was thus considered as an integration to the application for the initial authorisation; the other one was authorised in August 2016.

23. Through its participation in CCP colleges, ESMA staff noted though that NCAs had diverse approaches on how to identify new services and activities requiring an extension of authorisation under Article 15 EMIR, as already mentioned in ESMA's report n.4 on EMIR Review.[2] While the overall approach to the extension of authorisation is outside the scope of the current peer review, ESMA recognises the need to promote convergence in this respect.

[1] One of these extension of authorisation was renounced and withdrawn under Article 20 of EMIR on 3 March 2016.
[2] ESMA 13/08/2015 - EMIR Review Report no.4, ESMA input as part of the Commission consultation on the EMIR Review (see link).

Validation of Significant Changes under Article 49 EMIR

24. In the reporting period, only two NCAs validated significant changes to risk models and parameters under Article 49 of EMIR. In particular, five validations proposed by three CCPs were performed.

25. Until 31 August 2015, only 5 changes to CCPs' risk models and parameters were deemed significant under Article 49 of EMIR and subject to the validation of the NCAs and ESMA. These related to changes to the margining models, portfolio margining methodology, methodology regarding collateral credit risk add-ons, and the list of eligible currency for cash collateral. Through the validation of these changes, the NCAs necessarily assessed the impact of the changes on the CCP compliance with the relevant EMIR requirements, including the margin and collateral requirements as appropriate.

26. In the same period, NCAs assessed a variety of changes that were considered as non-significant for the purpose of Article 49 and were authorised by the NCAs without the formal validation and the college review required by the Article 49 of EMIR. Following best practices promoted by ESMA via a framework agreed among NCAs, some NCAs informed the CCP colleges of upcoming changes meeting some of the commonly agreed indicators for significance, even when assessing these changes as non-significant and allowing the college to express its view on the significance before the changes were introduced. However, not all NCAs followed this best practice and in some instances changes were introduced without any ex-ante information to the college and without any possibility to challenge the NCA assessment on the significance of the change.

27. Comparing the nature of significant and non-significant changes to CCP risk models and parameters, including also those that occurred after the reporting period, ESMA staff noted that NCAs have a diverse approach on how to determine whether a change is significant or not for the purpose of Article 49. While the overall approach to the determination of significant changes is outside the scope of the current peer review, ESMA recognises the need to promote convergence in this respect.

Other Supervisory Activities: desk-based reviews and on-site inspections

28. In the annual supervisory work plan for 2014 and 2015, NCAs reported 38 supervisory activities. These supervisory activities have been very different and covered a variety of inspections and reviews. In general, most activities (10) related to reviewing margin and collateral requirements and/or related processes; others related to the review of stress testing and back-testing (6), haircuts review (5), additional practices in calling additional margin (4), pro-cyclicality and risk management (5), and other issues (7). 12 out of the total 38 performed supervisory activities involved on-site inspections.

29. By the reporting date, 9 of the 38 supervisory activities were completed, 23 were still open, while the status of the remaining 6 was neither open nor closed (unknown).

30. While the overall approach to the determination of topics for desk-based reviews and on-site inspections is outside the scope of the current peer review, ESMA staff have identified

that NCAs have no common approach to the thematic scope of desk-based and/or on-site inspections. ESMA recognises the need to promote convergence in this respect.

NCAs' organizational setup

31. In total, 16 NCAs in 12 EU Members States have a direct supervisory responsibility to assess the EU CCP's compliance with margin and collateral requirements. In France 3 NCAs have shared competences on CCPs (ACPR, AMF and BdF), while 2 NCAs coexists in Italy (BdI, Consob) and the Netherlands (AFM, DNB). In Germany, while Bafin is the competent authority for CCPs under EMIR, CCPs are also licensed as credit institutions according to German Banking Act, which implies shared responsibility in (banking) supervision between BaFin and the Deutsche Bundesbank. Accordingly, the Deutsche Bundesbank (Regional Office in the state of Hesse) conducts ongoing supervision and provides specialised inspectors for the annual onsite inspections - which are ruled by BaFin and carried out by the Deutsche Bundesbank on behalf of BaFin.

32. The number of Full-Time Equivalent (FTE) staff members assigned to the assessment of CCP's compliance with margin and collateral requirements is quite heterogeneous across NCAs, on average ranging between 2 and 5 FTE. These figures are proportional to the importance and the number of CCPs supervised by the respective NCAs.

33. Nine NCAs have adopted internal procedures, guidelines or other tools to help staff deal with specific supervisory activities on margin and collateral requirements.

34. The current peer review did not include a comparative review of the NCAs' internal procedures, guidelines or other tools supporting specific supervisory activities on margin and collateral requirements. This is something that might be considered for future peer reviews.

3.2 Main findings

a) Divergences in the supervisory approach adopted by competent authorities

35. While Article 21(3) of EMIR allows NCAs to establish the frequency and depth of the review of the arrangements, strategy, processes and mechanisms that a CCP implemented to comply with EMIR requirements and of the evaluation of the risks to which the CCP is, or might be, exposed, having regards to the size, systemic importance, nature and complexity of the activities of a CCP; the same article also requires NCAs to update such review and evaluation at least on an annual basis. Moreover, it specifies that CCPs shall be subject to on-site inspections.

36. ESMA noted that NCAs supervising similar CCPs in terms of size, systemic importance, nature and complexity of the activities adopted different approaches with respect to the scope of their annual review and to the conduct of on-site inspections. ESMA appreciates that, in order to pursue an efficient use of their resources, NCAs adopted a risk-based approach in defining the scope of their review and the need for on-site inspections. It is

expected though that the further in the past the initial authorisation, the deeper the scope of future reviews and the wider the conduct of on-site inspections.

37. ESMA will monitor through its participation in CCP colleges the depth of the annual reviews, promote a consistent approach towards similar CCPs and solicit a more systematic use of on-site inspections.

b) Items for future discussions on how to enhance supervisory convergence, where divergences emerged

38. ESMA recognises the need to promote convergence on the approach to (i) identifying new services and activities requiring an extension of the authorisation under Article 15 of EMIR, and (ii) determining significant changes to risk model and parameters under Article 49 of EMIR.

39. To this aim, ESMA adopted in November 2016 an opinion establishing common indicators to be considered in the context of the assessment of new services and activities for the purpose of Article 15 and of changes to risk models and parameters for the purpose of Article 49.[3] ESMA will monitor the impact of this opinion on supervisory convergence across colleges and, where needed, consider further initiatives to achieve further convergence in this field, including within the context of the EMIR review.

40. Moreover, ESMA considers that the coordination of the focus of NCAs' supervisory activities, including desk-based reviews and/or on-site inspections, could further promote convergence. ESMA will explore possible operational solutions to implement such coordination, without any prejudgment to the prerogatives of each NCAs in defining the yearly program of its supervisory activities.

c) Good practices

41. With respect to format of the annual review under Article 21, ESMA considers that the following two approaches are good practices:

    - update the risk assessment for the initial authorisation to reflect any changes that occurred during the year under review, where changes are presented in revision marks. This approach allows to maintain a comprehensive overview of the CCP's compliance with respect to all EMIR requirements, being updated at least annually.

    - provide a review report along the structure of the risk assessment template, focusing only on the changes that occurred during the year under review with respect to the CCP's compliance with all EMIR requirements.

42. Although both approaches ensure that the review encompass all changes occurred during the year under review with respect to all EMIR requirements, they have their own pros and

[3] ESMA/2016/1574 – Opinion on common indicators for new products and services under Article 15 and for significant changes under Article 49 of EMIR (See link).

cons in terms of drafting efforts and readability; therefore, it is left to the NCA to decide what approach to implement taking into account the view of the college members.

d) Possible cases of non-compliance with the EMIR provisions or ESMA common principles and criteria

43. With respect to the timing of the annual review, ESMA appreciates that in some cases the delay in the finalisation of the first annual review did not necessarily coincide with a delayed initiation of this activity, and understands that the scheduling of the annual meeting of the college, to which the review was to be presented, could have contributed to a further delay in the finalisation of the annual review. Looking forward, ESMA urges NCAs to complete the annual review in time for submission to the respective CCP college annual meeting, i.e. within 12 months from the previous review/meeting.

4 Supervisory Activities on Margin Requirements

4.1 Overview

44. EMIR provides detailed requirements on the calculation and collection of margin, under Article 41 of EMIR and Articles 24 to 28 of the RTS. These requirements cover the collateralisation of exposures and adjustment of margin levels, the calibration of the margin models with reference to the confidence interval, the look-back period and the liquidation period, specific restrictions on the application of portfolio margining and how CCPs are expected to address pro-cyclical effects. The NCAs were asked to provide responses to a number of questions on their supervisory approach and practices with respect to the assessment and review of CCPs' compliance with the above requirements, organised under 6 broad areas (issues).

45. The overview of the responses describing the supervisory practices of different NCAs is provided here separately for each issue, while the main findings across all areas are summarised in the following section.

Issue 1- Collateralisation of exposures

46. CCPs are required to collateralise all exposures at least on a daily basis and adjust the level of margins to reflect current market conditions. Margins shall be sufficient to ensure that a CCP fully collateralises its exposures with all its clearing members, and, where relevant, with CCPs with which it has interoperability (or cross margining) arrangements, at least on a daily basis. CCPs shall call and collect margins on an intraday basis, at least when predefined thresholds are exceeded [4]

End-of-day and intraday margining process

47. The NCAs were asked to describe any processes used to supervise whether the CCPs policies and procedures are implemented consistently allowing exposures with all its clearing members, and, where relevant, with CCPs with which it has interoperability (or cross margining) arrangements, being collateralised at least on a daily basis and collection of margins on an intraday basis when the predefined thresholds are exceeded.

48. All NCAs but one responded that they performed during the reference period a desk based review to assess this issue with the majority of the NCAs responding that this included verifying policies and procedures with regards to both end-of-day and Intraday margin collection.

49. It is worth noting that where one NCA is supervising more than one CCPs, the approach may differ significantly from CCP to CCP both in terms of approach and in terms of depth of the analysis. For example, in one case the NCA is requiring from one CCP to provide

[4] EMIR Article41(3)

daily data on margin calls to supervise this activity, while at the same time for another CCP the same NCA relied fully on the report of the CCPs auditor.

50. Moreover, the approach of one NCA is that it is the responsibility of each CCP to establish suitable internal controls that ensure its policies and procedures are correctly implemented on a continuous basis and therefore its supervisory approach does not involve systematically verifying, through desk-based or on-site reviews, implementation of CCPs' policies and procedures. The NCA instead adopts a risk-based approach in order to prioritise supervisory activity, focussing on sources of risk that are judged most likely to present a threat to the resilience of individual CCPs and / or systemic risk to the financial system. Following this approach, it has conducted a thematic review of intraday margin policies and their implementation, focusing on whether CCPs monitor intraday changes in margin requirements in near-to-real time, and the level at which a call is triggered.

51. With regards to the methodology used for supervision, in some cases a high level description (e.g. review of relevant policies during initial authorisation, annual review or extension of activities) or no information was provided on how the NCAs actually performed this review. Most NCAs have also implemented a process for on-going supervision of this requirement using data reported by CCPs on a regular basis, including for example information on end-of-day and intraday margin calls, to verify the implementation of the relevant policies. Three NCAs have direct access to relevant CCPs data, while in one case, the NCA has access to an electronic monitoring system that provides it with information on, inter alia, intraday margins' collection, both on an aggregated and participant level allowing the verification of the application of the policies through this system on a real time basis, since a failure to receive margins (also on an intraday basis) is automatically and promptly signalled.

52. Beyond desk based reviews, only 4 NCAs conducted during the reference period at least one on-site inspection to verify the implementation of the consistent implementation of policies used to i) calculate and collect margins to cover all exposures on a daily basis, and ii) call and collect margins on an intraday basis when the predefined thresholds defined in their policies and procedures are exceeded. However, in most cases, no detailed information was provided with regards to the specific processes that were reviewed during the on-site inspection in order to verify the relevant policies. Where such information was provided, the inspection usually involved the confirmation of the performance of intraday margin calls.

Notification of failures to calculate, call and collect margins

53. The NCAs were also asked to explain whether they have established a process for CCPs to notify the NCA in case of CCPs failure to calculate and collect margin on an end-of-day basis or call and collect margin on an intraday basis. All NCAs, with the exception of one, had established such a notification process during the reference period, while the remaining authority responded that it has done so after the reference period. The majority

of NCAs responded that the notification[5] applied for both intraday and end-of-day technical or operational issues linked to margin.

54. With regards to the timeframe within which the CCPs are expected to notify the NCA, in most cases the CCPs are expected to notify immediately, depending in some cases on the materiality of the issue. In one case, the expectation was to report incidents within 5 days, while also for one NCA there was no fixed timeline set, but the CCP is according to the response bound to promptly communicate any material error. However, it should be noted that even where a maximum timeframe for notification was provided, it was not confirmed whether this is part of a formalised rule or just an expectation of the authority. Moreover, the level of how structured the relevant process is, differs significantly from authority to authority. Only in a few cases the NCAs have defined a fixed template that needs to be sent by the CCP in case of incidents, while in some other cases the NCAs have defined the minimum amount of information that needs to be shared.

55. With regards to events that have led to a failure from market participants to timely provide margins to cover all exposures on a daily basis or timely provide margins during the day to cover an intraday margin call, we asked the NCAs to explain whether they have established a process for supervised CCPs to notify the authority. All but one NCA responded that they had established during the reference period such a process which in most cases would include an immediate or 'as soon as possible' notification. Again, only a few authorities have defined a fixed template for reporting such incidents. Instead, for the one authority having direct access to the aforementioned electronic monitoring system, such system would automatically signal to the NCA any failure to cover both end-of-day and Intraday margining requirements, including also cases where it involved a late payment that did not lead to a default declaration. The remaining authority that has not established any such notification process confirmed though that in case of any major problem/incidents, the NCA should be informed immediately.

56. Moreover, in some instances, the NCAs have established in cooperation with the CCP a formal structured procedure for notification of operational incidents, late payments, near misses or initiation of default management procedures. These types of procedures could further increase the responsiveness of NCAs and may include categorisation of incidents on the basis of their materiality, maximum timeframes for notification, contact lists & escalation procedures and fixed templates or minimum amount of information that would need to be communicated.

57. NCAs were also asked to report the number of notifications that were received during the review period. Most authorities reported no such occurrences, while one NCA reported receiving a large number of late pay-ins for securities in 2014 and 2015, while another NCA reported for 2016 (after the reference period) a large number of late pay-ins, while all incidents were rectified without an event of default, in many cases within minutes of the

[5] i.e. CCP to notify the NCA in case of a failed process or system

pay-in deadline. No further information was collected on potential actions from the NCAs following these notifications.

Margin adjustments to current market conditions

58. A CCP shall regularly monitor and, if necessary revise the level of its margins to reflect current market conditions.[6] The NCAs were asked to report whether and how they have supervised CCPs to ensure that policies and procedures used to adjust the level of margins to reflect current market conditions are implemented consistently. In particular, they were asked to identify if this included regular or ad hoc desk based reviews on the basis of data/reports requested from CCPs and / or on-site inspections.

59. All NCAs, with the exception of two reported that they performed during the reference period at least one desk based review on the basis of reports provided by the supervised CCPs. The two authorities that did not exercise this type of activity during the reference period, have responded that they have reviewed the relevant CCPs processes after this period. According to the information provided, in most cases, the NCA reviewed the relevant CCP practices on a regular, monthly or quarterly, basis using back-testing reports, sensitivity analysis and/or stress testing reports, and, in some cases, also taking part to the regular Risk Committee meetings. Where the CCPs margin model involves the regular re-calibration of key parameters, some NCAs will also review the changes and follow-up with the CCP is cases of large or abnormal changes.

60. In particular, one NCA has chosen not to regularly monitor margin parameter revisions, as CCPs have policies which ensure that new market price information informs the calibration of margin parameters in a timely way. The NCA will make ad-hoc requests to supervised CCPs where necessary to understand how adverse market conditions are affecting their margin arrangements, for example in relation to high price volatility for specific asset classes over the course of 2015. In such cases, the CCPs would be expected to provide information on whether market moves had generated breaches and how margins were adjusting (if necessary) to increased volatility. This NCA has also asked some CCPs to conduct ad hoc simulation exercises of how current or proposed margin models would respond to a repeat of a historical stress event, such as following the failure of Lehman Brothers in 2008 – so-called ‘crisis replay’ tests. These tests are designed to establish whether the margin model is able to respond adequately to changes in market conditions while avoiding pro-cyclical increases in margin as far as possible.

61. Only one NCA reported that it has conducted during the reference period an on-site inspection linked also to the supervision of these activities.

[6] EMIR Article 41(1), and ESMA Q&A CCP Question 9(a).

Issue 2 - Confidence interval

Minimum confidence interval

62. For the calculation of initial margins, the CCPs shall at least respect the following confidence intervals: (a) for OTC derivatives, 99.5 %; (b) for financial instruments other than OTC derivatives, 99 %. The NCAs were asked to explain how they supervised that the CCPs margin models perform according to the minimum regulatory requirement with regards to the confidence interval of CCPs' initial margins. They were asked to describe the supervisory process including the frequency, the method used and the types of reports reviewed.

63. All NCAs with the exception of one responded that they performed, during the reference period, desk based reviews of the compliance of the CCPs with the minimum confidence interval requirement. The authority that reported not performing similar activities in the review period, responded that it has already introduced a supervisory process for the CCP to provide, on an on-going regular basis, back testing reports. For one of the authorities that indicated that they performed this type of review, the understanding of ESMA staff is that the activity was based on a 3rd party validation and was performed after the reference period. Moreover, one NCA reported that for one supervised CCP it had access to the protocols of the Risk Committee meetings of the CCP and that within those meetings information is shared regarding stress testing and back testing results, while the confidence interval is part of the independent validation. However, no information was provided on whether it actually reviewed these reports during the reference period);

64. Moreover, one NCA reported reviewing policy & methodology documents during the annual review including also on-site workshops, but provided no information on reviewing any quantitative reports (e.g. back testing).

65. Most NCAs review the compliance of the CCPs margin models with the minimum confidence interval requirements using back testing reports (less frequently also sensitivity analysis reports), that are provided by the CCPs on a regular basis. The ex-post reports are usually reviewed on a monthly or quarterly basis. One authority reported that, in addition, it conducts periodic 'core assurance' reviews of CCPs margin models that include much more detailed analysis of back-testing results (and sensitivity analysis) at risk-factor as well as portfolio level. These reviews are currently conducted on a three-year cycle.

66. Moreover, one NCA performs regular (at least quarterly) analysis of the level of margins' coverage by comparing them with the volatility of the financial instruments to which they are applied or with other volatility's indicators such as the Value-at-Risk indicator (VaR) calculated with reference to different look-back periods, and the targeted confidence interval.

67. No authority reported doing an on-site inspection during the reference period to review the compliance of the CCP with these specific requirements.

Criteria for the determination of the confidence interval

68. For the determination of the adequate confidence interval for each class of financial instruments it clears, a CCP shall in addition consider at least the factors set out in Article 24(2)(a)-(d) of the RTS. The CCP shall inform its competent authority and its clearing members on the criteria considered to determine the percentage applied to the calculation of the margins for each class of financial instruments.[7] Therefore, the NCAs were also asked to describe the supervisory process used to assess the adequacy of the criteria considered in the CCPs policies to determine the percentage applied for their margin models, including the context of their last assessment and the method , the criteria (e.g. RTS art. 24(2) and/or other) and, where applicable, the data used for their own assessment.

69. Most NCAs reviewed the adequacy of the criteria used for the determination of the confidence interval only during the initial authorisation and, after that, only as part of a supervisory review following an extension of activities or a significant model change. Few NCAs did however report reviewing on a regular or ad-hoc basis the determination of the confidence interval after the initial authorisation and independently of any extension of activities or significant model changes. In particular, one NCA reported that, as part of the quarterly Risk Committee meetings the CCP provides updated analysis and, based on the provided analysis, the NCA also checked the reports prepared by the CCP and the expected shortfall of margin models and the sensitivity analysis of the applicable percentage. As far as the ongoing supervision is concerned, another NCA reported performing periodically quantitative analysis based on the data provided by the CCP for monitoring purposes on the basis of the CCPs back testing reports on the breaches occurred. Moreover, one NCA responded that it reviews on a regular basis a scorecard provided by the CCP, that includes the criteria for setting the confidence level in relation to Article 24(2) of the RTS.

70. With regards to the criteria used by the NCA for assessing the determination of the confidence level, some NCAs did not provide any information on the criteria considered, while other NCAs just confirmed they used the RTS criteria without providing any additional information on how these were interpreted. Some NCAs did however provide some additional insight on how they assessed the CCPs compliance with the RTS criteria, including in some cases also per asset class. Overall, the level of sophistication of the NCAs assessment differs significantly between authorities. Only a few authorities use quantitative data for the assessment of the compliance of the confidence level against the provided criteria, but the key identified issue is that most authorities do not review the adequacy of the criteria on an on-going basis to reflect potential changes in the available liquidity or market structure that could invalidate the CCPs choices.

[7] RTS Article 24, and ESMA Q&A CCP Question 9(b).

Issue 3 -Look-back period

71. A CCP shall ensure that according to its model methodology and its validation process, initial margins cover at least with the defined confidence interval and for the defined liquidation period the exposures resulting from historical volatility calculated based on data covering at least the latest 12 months. A CCP may use any other time horizon for the calculation of historical volatility provided that the use of such time horizon results in margin requirements at least as high as those obtained with the time period defined in the RTS. A CCP shall ensure that the data used for calculating historical volatility capture a full range of market conditions, including periods of stress.

Minimum 12-month look-back period

72. The NCAs were asked to explain if and how they assessed whether the historical volatility used by supervised CCPs to calibrate their margin models is calculated on data covering at least the latest 12 months and to capture on an on-going basis a full range of market conditions, including if applicable also new periods of stress that may have emerged during the review period.

73. With regards to the requirement that the exposures shall result from historical volatility calculated based on data covering at least the latest 12 months, the NCAs responded that they have reviewed the CCPs policies during the initial authorisation (and/or in some cases also during the annual review or the review for the extension of services and activities) in order to ensure that the lookback period is either longer than 12 months or that the margin calculated is larger than the one that would be calculated using a 12-month look-back period. One NCA has not provided any detailed information on the relevant activities for one of the supervised CCPs.

74. However, one NCA responded that it does not require the application of this provision by the supervised CCP with regards to spot energy products. In particular, it responded that, as these are not financial products under MiFID, there is no requirement to comply with EMIR, and this will be the case in the future as well, because spot energy will not be financial instruments under MiFID 2.

75. This raises a general issue on whether a CCP is required to comply with all of the requirements laid down in EMIR for all of the services that it provides and activities that it performs (in this case, instruments that are not financial instruments under MIFID). ESMA has provided clarity on this issue in the EMIR Q&A (CCP Question 6(e)) concluding that "…*under EMIR CCPs will not be able to provide some of their services or perform some of their activities to standards which are below the minimum requirements established by Title IV of EMIR* …". Therefore, ESMA believes that the interpretation implemented by the NCA is not in line with EMIR requirements and asks the NCA to revise its approach and enforce the application of all EMIR requirements to all cleared products.

Inclusion of periods of stress

76. Also with regards to the requirement for CCPs to ensure that the data used for calculating historical volatility capture a full range of market conditions, including periods of stress, most NCAs assessed the CCPs models, including the applicable look-back period and the related provisions that allow the incorporation of stressed conditions, during the initial authorisation and have not verified thereafter if the approved policies are still fit for purpose. The CCPs usually rely on using longer look-back periods, volatility floors calibrated using long history or selected historical stress periods in order to comply with this requirement. One NCA, responded that it expects supervised CCPs, when a margin model is first authorised, revised, or applied to a new class of assets, to use an extended history of price data unless there is good reason not to, e.g. limited data availability (for new products), concerns around data quality, or structural breaks in the historical series. This NCA noted that close attention is paid to the justification given by any CCP proposing to use only the minimum 12-month look back period, and whether this indeed covers a full range of market conditions. In some cases, this resulted in the amendment of CCPs policies and the use of margin floors based on long-run look-back periods. The NCA also pressed CCPs using extended (e.g. 10-year) look-back periods that include market volatility around the time of the Lehman failure in 2008 to consider possible options for ensuring this episode continues to inform margin calculations beyond 2018, e.g. by using an extending look-back method.

77. ESMA staff believe that the NCAs should carefully examine cases where the margin look-back period used by supervised CCPs would exclude recent stress events because of its rolling nature. In general, the NCAs could also review after the initial authorisation if the CCPs policies with regards to the choice of the look-back period are still adequate in light also of recent market conditions.

78. Moreover, one NCA responded that under current CCP arrangements (the use of a long lookback period or a floor calculated using a long history) it considers that stress market conditions are effectively taken into account for the computation of initial margin. Nevertheless, it considers that an effective use of option b Article 28 of the RTS (25% weight to stress observations) should be envisaged as an enhancement, as the CCP would better capture stress market conditions (monitoring and implementation within the look back period). One NCA also responded that it is comparing the historical volatility with the ten years' volatility floor, while it has also requested and received during the initial authorisation price data from the CCP, which has been used in order to assess whether the data capture a full range of market conditions. Since the authorisation, the NCA has specifically examined the historical scenarios that the CCP applies and examines if the reason for exclusion of certain historical scenarios is valid based on the criteria in RTS article 25.

Financial instruments without a historical observation period.

79. According to Article 25 of the RTS, margin parameters for financial instruments without a historical observation period shall be based on conservative assumptions. A CCP shall promptly adapt the calculation of the required margins based on the analysis of the price

history of the new financial instruments.[8] Where applicable, the NCAs were asked to describe if and how they supervised on an on-going basis whether CCPs consistently apply conservative assumptions when calibrating margin models for financial instruments without a historical observation period. CCPs typically use either historic prices of proxies (instruments with similar characteristics), or modelled prices or conservatively calibrated default values for margin parameters, sometimes also applying additional buffers to address cases where cleared instruments do not have sufficient price history. The efficiency of the different tools is expected to depend heavily on its calibration, being the choice of the proxy, the model used for deriving prices or how conservative the default value is. Therefore, we believe that it would be useful to assess on an ex-post basis the efficiency of these policies, especially for CCPs where these instruments account for a significant share of their activity.

80. However, most NCAs responded that they do not review on an on-going (after the initial authorisation) basis the relevant CCPs procedures. Only a few NCAs responded that they use back testing results, but even for those NCAs it was not clear whether the analysis was targeted to review the efficiency of the relevant CCPs policies or rather an instrument class level back testing analysis, where the specific cases where the data is not available would not make a difference at instrument class level. Moreover, only a few NCAs also responded that this is expected to be part of the annual independent or CCP validation.

Issue 4 - Liquidation period

Adequacy of the liquidation period and concentration add-ons

81. A CCP shall define the time horizons for the liquidation period taking into account the characteristics of the financial instrument cleared, the market where it is traded, and the period for the calculation and collection of the margins. These liquidation periods shall be at least: (a) five business days for OTC derivatives; (b) two business days for financial instruments other than OTC derivatives. In all cases, for the determination of the adequate liquidation period, the CCP shall evaluate and sum at least the periods set out in RTS art. 26 (2) (a)-(c). In evaluating these periods, the CCP shall consider at least the factors indicated in RTS art. 24(2) and the time period for the calculation of the historical volatility as defined in RTS art. 25.[9] The NCAs were asked to describe how they assessed whether the liquidation period used by supervised CCPs to calculate margin requirements including any potential margin add-ons applied for concentrated positions will efficiently mitigate any risks from liquidating the positions in a default scenario. In particular, the NCAs were asked whether they have used updated analysis (i.e. after the initial authorisation) provided by CCPs, on a regular or ad hoc basis, to verify the adequacy of the policies used to set the liquidation period and concentration risk add-ons. Some NCAs responded that this review is part of the annual independent validation or annual review, but provided no or limited information on the specific data or reports used for their assessment. One NCA reported that its supervised CCP provides on an annual basis a concentration report to compare the

[8] RTS Article 25.
[9] RTS Article 26

exposure of the most exposed participants to the overall level of exposures of all participants.

82. Only one NCA responded that it receives and checks on a more frequent-quarterly-basis, liquidity reports by participating in the Risk Committee, but no further information was provided on the content of the reports.

83. Some NCAs provided information on the reports reviewed in case of introduction of new products or extension of services, which in most cases only included qualitative information. One NCA noted that it receives from the CCP, every time it introduces new products, a margin parameter scorecard that also includes the criteria for setting the liquidation period in relation to Article 26(2) of the RTS.

84. As identified also above with regards to the criteria used for setting the confidence interval, some authorities do not re-assess after the initial authorisation in depth the adequacy of the criteria reflecting also potential changes in the available liquidity or market structure that could invalidate the CCPs choices.

Use of Fire-drills to assess the liquidation period assumptions

85. According to Article 59 of the RTS, a CCP shall test and review its default procedures at least quarterly and perform simulation exercises at least annually. The NCAs were asked to describe the process where they have requested and/or the CCP has performed a simulation exercise to also evidence the adequacy of its policies used to set the liquidation period and concentration risk add-ons according to the periods defined in Article 26(2) of the RTS.

86. All NCAs, with the exception of two responded that the CCPs use the default simulation exercises (fire-drills) to also check the adequacy of the liquidation period. Where the NCAs responded that the supervised CCPs perform this activity, in most cases the CCP was requested to provide a report to the NCA, while in some cases the NCA would participate as an observer in the simulation. However, from the responses reviewed it was not clear in many cases if the relevant simulation exercises and the assessment of the NCAs were conducted during or after the reference period. Moreover, in most of the cases it was not clear how this process was specifically used to assess the adequacy of the liquidation period and the concentration add-ons.

87. Where more detailed information was provided, it was not clear whether the simulations focused solely on the operational aspects of the default procedures or were also used to test, on the basis of realistic and adverse scenarios, the adequacy of all the assumptions underlying the calibration of the liquidation period and the concentration add-ons, including the availability of market prices and the readiness/willingness of market participants to provide liquidity.

88. In particular, one NCA has recently completed a thematic review of CCPs' approach to designing and conducting default management fire-drills and amongst other things has encouraged CCPs to view default management fire-drills as an opportunity to verify the

assumptions embedded in its margin models (including liquidation period and portfolio margining practices) as well as confirm operational readiness to execute the default management process. The NCA has also requested that CCPs ensure the (hypothetical) portfolios used in default management fire-drills are suitably large and complex to 'stretch' the risk management framework, including the adequacy of concentration add-ons.

Issue 5 - Portfolio Margining

89. A CCP may allow offsets or reductions in the required margin across the financial instruments that it clears if the price risk of one financial instrument or a set of financial instruments is significantly and reliably correlated, or based on equivalent statistical parameter of dependence, with the price risk of other financial instruments. The CCP shall document its approach on portfolio margining and it shall at least provide that the correlation or an equivalent statistical parameter of dependence, between two or more financial instruments cleared is shown to be reliable over the lookback period calculated in accordance with Article 25 and demonstrates resilience during stressed historical or hypothetical scenarios. The CCP shall demonstrate the existence of an economic rationale for the price relation. Where portfolio margining covers multiple instruments, the amount of margin reductions shall be no greater than 80 % of the difference between the sum of the margins for each product calculated on an individual basis and the margin calculated based on a combined estimation of the exposure for the combined portfolio. Where the CCP is not exposed to any potential risk from the margin reduction, it may apply a reduction of up to 100 % of that difference.[10]

Economic rationale

90. With regards to the requirement for CCPs to demonstrate the existence of an economic rationale for the price relation, the NCAs were asked to describe the criteria they use to assess whether an economic rationale exists for the price relation between instruments for which supervised CCPs allow offsets or reductions in the required margins.

91. For two NCAs, the supervised CCP did not apply portfolio margining during the reference period. In particular, for one NCA, the supervised CCP did not apply portfolio margining between different equities during the reference period. For the other NCA, the CCP did not apply during the reference period margin reductions between different equities and equity derivatives.

92. For the remaining authorities, overall a low level of convergence was identified when it comes to the criteria considered to assess the existence of an economic rationale for portfolio margining arrangements under the provisions of Article 27 of the RTS. In many cases, the NCAs responded that the criteria were examined on a case by case basis or that the criteria were variable. Also it emerged that even NCAs that supervised multiple

[10] RTS Article 27

CCPs did not use a common set of criteria to assess the existence of the economic rationale across supervised CCPs.

93. ESMA believes that the assessment of the existence of an economic rationale is the first step used to identify whether a CCP should be allowed to apply offsets to margin requirements across different instruments or not. Therefore, a high level of convergence, especially when it comes to criteria applied to the same instruments or instruments of the same asset class cleared by multiple CCPs, is critical to ensure a level playing field. Moreover, observed historical dependencies across different instruments, especially when these are not based on a sound economic rationale, may break under stressed market conditions and expose CCPs to uncovered risks. Therefore, ESMA believes that supervisory convergence with regards to the criteria used for the assessment of the existence of an economic rationale should be further enhanced.

Significant and reliable correlation

94. The NCAs were also asked to provide information on any supervisory process they used to assess whether the correlation (or other statistical parameter of dependence) is significant and reliable over the look-back period and has demonstrated resilience during stress events, across instruments for which supervised CCPs allow offsets. For that purpose, the NCAs were also asked to describe the type of data/reports provided by CCPs, the metric(s) used to assess the dependency and the criteria applied (e.g. specific soft/hard thresholds or qualitative analysis). The objective of reviewing this information was to understand the level of convergence in the methods, metrics and criteria of CCPs that were assessed as compliant by the NCAs.

95. For most NCAs the supervised CCPs are using fixed, and in most cases, hard thresholds on the correlation coefficient (or also principle components) to set between which instruments they will apply offsets in compliance with the requirement for the dependence to be significant. The aforementioned thresholds on the correlation coefficient, range between 0 and 0.80, while the reliability is usually assessed by calculating the value or the distribution of the dependence across long or different lookback periods.

96. However, a number of NCAs apply a different supervisory approach. In particular:

- one NCA considers that offsets could be applied between instruments that are not significantly correlated (if understood as highly correlated)[11]. The rationale provided for this opinion is that a CCP should be allowed to take into account the diversification arising from the joint position on low correlated instruments.

- another NCA has based its assessment for a margin model used by a supervised CCP, on the argument that the model is using statistical parameters inherent in the system

[11] This would imply that a low (in absolute terms) correlation (e.g. equal to 0 or even negative) would be considered as acceptable as long as it its statistically significant. However, the NCA subsequently clarified that although it considers that this should be the correct policy, this is not how they supervise the CCP in practice, i.e. it verifies that the CCP rely only on highly correlated instruments.

that are part of the margin model and also adjust the margin for correlation breakdowns[12];

- while another NCA has also based its assessment on correlations being automatically included in the margin system.

Therefore, it is not clear whether and how these NCAs require the CCPs to restrict the application of offsets between instruments that are significantly and reliably correlated (or based on equivalent statistical parameter of dependence).

97. Moreover, another NCA expects CCPs to provide statistical evidence that the relationship between products proposed for portfolio margining is reliable (i.e. statistically significant) over the liquidation period used in margin calculations, across a range of market conditions, including periods of stress. This would include, as a minimum, the look-back period used in margin calculations. In addition, it requires the CCP to conduct rigorous portfolio-level back-testing to demonstrate that the margin model is able to capture reliably changes in the statistical relationship between products, including in stressed market conditions. The NCA does not specify fixed thresholds for determining whether the statistical relationship between two or more products is reliable, but does require evidence that the model achieves the required confidence level for a range of actual and hypothetical member (or client) portfolios across a range of market conditions.

Resilient correlation

98. With regards to the requirement for correlation (or other statistical parameter of dependence) to demonstrate resilience during stress events in order for a CCP to apply offsets, only for a few NCAs the supervised CCPs are using fixed thresholds in order to limit the scope of the provided offsets. In most cases, the NCAs have assessed the CCPs compliance on the basis of more general criteria, such as that:

- the correlation is resilient or high over long time periods, stable during historic stress periods, does not differ significantly between normal and high volatility periods, or

- the statistical relationship is reliably captured by the margin model in a range of market conditions, which may include simulations of past episodes of stress and hypothetical scenarios to demonstrate that the model is reliably able to

  - capture changes in the statistical relationship over the liquidation period,

  - maintain the required coverage level and

  - avoid where possible pro-cyclical (or large step) changes in margin requirements.

[12] Again, according to ESMA staff understanding this implies that a CCP would be allowed to apply offsets between instruments with low (in absolute or in statistical significance terms) correlation, if potential correlation breakdowns are taken into account in the model.

99. Moreover, two NCAs, have not provided information on how they assessed the resilience of the correlations during stress events. After reviewing the NCAs responses, ESMA believes that the supervisory convergence with regards to the application of this requirement should be further enhanced.

100. The NCAs were also asked if they have received updated analysis after the initial authorisation or extension of activities. From the provided responses it was understood that only a few NCAs received updated analysis during the reference period. Many NCAs expect this analysis is to be updated in the course of annual reviews and/or independent validations. Only a few NCAs (in most cases also after the reference period) have established a process to receive and review on a regular and frequent (i.e. quarterly or monthly) basis updated analysis on the dependence structure for portfolio margined products.

101. After reviewing the NCAs responses, ESMA believes that the supervisory convergence with regards to the application of this requirement should also be further enhanced. In particular, it could be clarified whether the requirement for correlation to be significant and reliable over the look-back period, across instruments for which supervised CCPs allow offsets, shall be understood to require CCPs to demonstrate that the chosen dependence metric (e.g. correlation) is high in absolute value across different market conditions or is statistically significant across different market conditions, independently of its value. The NCAs are also encouraged to establish a process to receive and review on a frequent and regular basis updated analysis on the dependence structure for portfolio margined products.

Threshold on offsets

102. CCPs are also required to apply margin offsets or reductions of up to 100% (of the difference between the sum of the margins for each product calculated on an individual basis and the margin calculated based on a combined estimation of the exposure for the combined portfolio) only where the CCP is not exposed to any potential risks and apply a margin reduction of no greater than 80% of that difference in all other cases. The NCAs were asked to provide a description of the process they used to assess the CCPs compliance, including also the criteria and methods used by supervised CCPs to comply with requirements. According to the responses provided, the NCAs assessed during the reference period the compliance of relevant CCPs policies almost exclusively in the context of the initial authorisation, extension of services or changes in the CCPs models.

103. When it comes to the application of the 80% threshold, the NCAs use different approaches in assessing compliance of authorised CCPs' portfolio margining models. Generally, the CCPs were authorised to exceed the 80% threshold on margin reductions when cross margining instruments on the same underlying but with different maturities, although in one case a CCP is also applying the threshold to offsets for instruments on the same underlying across maturities or even across settlement days for cash clearing. Moreover, for interest rate derivatives, one CCP was allowed to apply up to 100% offsets

for same currency instruments across tenor buckets, while another CCP was required to apply the 80% threshold across maturity buckets.

104. Therefore, ESMA believe that there is a need to enhance the supervisory convergence, especially on how to identify different instruments/products when it comes to the application of the threshold. The correct definition of instruments/products is also necessary to ensure that all NCAs interpret in a consistent manner whether the CCPs they supervise apply or not portfolio margining.

105. When CCPs were authorised to provide margin reductions larger than the 80% threshold, NCAs followed different approach to asses that the CCP was not exposed to any potential risk. For instance,

- one NCA reported that one of the CCPs supervised uses reports to identify the portfolios where the 80% threshold is exceeded and which can subsequently be assessed to prove whether the CCP is exposed to any potential risks or not. If internal analysis would identify an under collateralisation, the CCP can require supplementary margin from respective clearing members. The supplementary margins are part of a daily report sent by the CCP to the NCA. The NCA responded that the reports used to identify if the threshold is exceeded are not shared with the NCA, which is informed when deemed necessary by the CCP[13].

- - Another NCA noted that, at the point a margin model is first authorised, revised, or applied to a new class of assets, it evaluates whether the CCP is exposed to additional "potential risk" from portfolio margining according to whether the CCP has: (a) demonstrated a sound economic rationale for margining two or more products jointly; (b) provided evidence that the products could be default managed as single portfolio in a way that preserves margin offsets / reductions during the close-out process; and (c) established (by means of rigorous and comprehensive portfolio-level back-tests) that the margin model is able reliably to capture changes in the statistical relationship between the products, including in periods of stress. If all three tests are satisfied, the CCP is permitted to include the full margin reduction. If one or more is not satisfied, then the margin reduction must be subject to at least a 20% 'haircut' to capture model risk[14].

106. Therefore, ESMA believes that there is a need to also enhance the supervisory convergence with regards to the cases where margin reductions can be larger than 80% of the sum of the margins of the individual products and in particular on whether this shall be assessed on the basis of a CCP being exposed to a risk with a limited probability or not being exposed to any potential risks.

[13] According to ESMA staff understanding, it is not clear whether and how the NCA supervises the criteria applied by the CCP to apply up to 100% margin reductions.

[14] ESMA is concerned with this approach as the CCP is allowed to apply up to 100% margin reductions not only where it is not exposed to any potential risks, but also where it is exposed to a risk with a limited probability of realisation.

Issue 6 - Procyclicality

107. A CCP shall ensure that its policy for selecting and revising the confidence interval, the liquidation period and the lookback period deliver forward looking, stable and prudent margin requirements that limit procyclicality to the extent that the soundness and financial security of the CCP is not negatively affected. This shall include avoiding when possible disruptive or big step changes in margin requirements and establishing transparent and predictable procedures for adjusting margin requirements in response to changing market conditions. In doing so, the CCP shall employ at least one of the options provided in RTS art. 28 (1) (a)-(c).[15] The NCAs were asked to describe the supervisory processes they used to check whether supervised CCPs efficiently implement the relevant policies.

Efficiency of anti-procyclicality measures

108. First, NCAs were asked to respond whether they have checked on the basis of data provided by the CCP if margin requirements are subject to disruptive or big step changes. Only a few NCAs reported having such a process. However, no NCAs reported having a supervisory process to receive, on a frequent and regular basis a procyclicality analysis from the CCP to check for the efficiency of the implemented measures on the basis of pre-defined metrics. One NCA reported performing a comprehensive analysis at least for the annual review of the risk assessment report, but provided no further information on the metrics analysed for this specific purpose. Moreover, two authorities responded that they check the changes of regular margin parameter revisions for big and disruptive changes that may drive to significant and sudden jumps in the margin requirements. Also, another authority responded that the CCP Risk Committee is provided with data on the development of the margin requirement and whether the methodology uses the current volatility or the floor calculated on the basis of Article 28 of the RTS.

109. It should be noted that one authority has set supervisory priorities for CCPs to develop an internal policy framework for managing pro-cyclicality in the total amount of financial resources collected from clearing members. The priority encompasses inter alia margin models, add-ons, collateral haircuts and arrangements for sizing the default fund. Each CCP is expected to articulate (and disclose) how it measures pro-cyclicality and define one or more tolerance threshold for when a margin model, for example, is considered excessively pro-cyclical and should be redesigned. The policy framework should be used to inform the development and validation of current and proposed risk management arrangements (especially quantitative models), but should not constrain the behaviour of the CCP during a period of stress if it is necessary to collect additional resources in order to preserve the robustness of the CCP.

110. Some authorities also provided information on the analysis used for the assessment of the counter-cyclical measures during the initial authorisation or the extension of activities of supervised CCPs. In particular:

[15] RTS Article 28 and ESMA Q&A, CCP Question 9(c).

- one authority responded that when validating a new or current model, the CCPs are expected to complement model back-testing with quantitative analysis of the variability of margin requirements over an extended sample period that should include episodes of market stress. This analysis can be based on metrics such as peak-to-trough[16], largest n-day margin increase, or any reasonable alternative that reliably captures potential pro-cyclicality.

- another authority also reported that as part of an independent validation conducted during the initial authorisation of the CCP, a quantitative analysis was performed to assess the different EMIR counter-cyclical tools using as performance metric the volatility of margin requirements.

- another authority also assessed the efficiency of the CCPs countercyclical tool for products where the history was not long enough to cover the 10-year RTS option (c) requirement, by calculating modelled prices on the basis of similar instruments (proxies) and then checking if the margin requirements using the existing history is higher than the margin requirements from the time series that was extended using the modelled prices.

– finally, another authority responded that it does not use hard thresholds to determine disruptive changes in the margin requirements. Qualitative analysis is performed taking in to consideration the potential size of the jump and expected capacity of the affected clearing members. Where a relevant increase in the margin requirements has been detected, the CCP has been requested to review its procedures accordingly. This included the risk arising from the deterioration of the credit quality of participants that could expose the CCP to sudden jumps in its margin requirements.

Temporarily exhausting the margin buffer in periods of stress

111. One of the options that is available to CCPs as counter-cyclical tool, according to Article 28 of the RTS, is applying a margin buffer at least equal to 25% of the calculated margins which the CCP allows to be temporarily exhausted in periods where the calculated margin requirements are rising significantly. However, if the buffer is not exhausted when margins are rising significantly, then the application of the buffer will further fuel instead of alleviating big step margin changes[17]. Therefore, the NCAs were asked to respond if, for CCPs that apply this counter-cyclical option, the NCA checks whether the CCP temporarily exhausts the buffer where margin requirements are rising significantly. Out of the twelve NCAs, three NCAs do not supervise CCPs that have implemented this option. None out of the nine remaining NCAs described having a structured activity to explicitly check if the supervised CCPs exhausted the buffer efficiently after the initial authorisation

[16] Ratio of the maximum initial margin required for a constant portfolio to the minimum margin required over a fixed observation period.
[17] ESMA 13/08/2015 - EMIR Review Report no.2, Review on the efficiency of margining requirements to limit procyclicality (see link).

4.2 Main findings

a) Divergences in the supervisory approach adopted by competent authorities

112. ESMA has identified the following divergent supervisory approaches on the assessment of compliance with margin requirements, with regards to how frequently and actively the NCAs review:

i. the CCPs back testing and sensitivity analysis reports, including also analysis on instruments without a historical observation period;

The ex-post (e.g. back testing) reports are usually reviewed on a monthly or quarterly basis. Where that is already not the case, the NCAs are urged to request the CCPs to provide on a frequent basis the aforementioned reports, actively analyse the results and follow up potential issues. Where the relevant clearing activity is material, the NCAs should also consider asking the CCPs to enhance their back testing reports with results on instruments without a historical observation period in order to verify whether the margin requirements are based on conservative assumptions.

ii. the adequacy of the criteria used by CCPs to set the confidence level and the liquidation period, in particular after the initial authorisation;

Overall, the level of sophistication of the NCAs assessment differs significantly between authorities when it comes to assessing the adequacy of the criteria used by CCPs to set the confidence level and the liquidation period. Only a few authorities use quantitative data for the assessment of the compliance of the confidence level against the provided criteria, but the key identified issue is that most authorities do not review the adequacy of the criteria on an on-going basis to reflect potential changes in the available liquidity or market structure that could invalidate the CCPs choices. Therefore, the NCAs are encouraged to re-assess on a regular (e.g. annual) basis the adequacy of the relevant criteria also using where applicable updated quantitative analysis. As identified also above, some authorities do not re-assess after the initial authorisation in depth the adequacy of the criteria used to set the liquidation period reflecting also potential changes in the available liquidity or market structure that could invalidate the CCPs choices. The NCAs are encouraged to re-assess on a regular (e.g. annual) basis the adequacy of the relevant criteria also using where applicable updated quantitative analysis.

iii. the efficiency of counter-cyclical tools used by CCPs, including also the verification of the exhaustion of the buffer during periods in which the calculated margin is rising significantly for CCPs that use the tool described under Article 28(1)(a) of the RTS;

With reference to procyclicality, the three options provided in Article 28 of the RTS have different theoretical properties and will not perform equally under different market conditions. The CCPs should actively and regularly identify and manage potential procyclicality threats in a timely manner. ESMA believes that all NCAs should more actively assess the efficiency of the CCPs counter-cyclical measures on a regular, frequent and holistic basis. Especially with regards to NCAs that supervise CCPs that use the 25% margin buffer (i.e. option (a) of RTS article 28), the NCAs are asked to check whether CCPs exhaust in practice the buffer in periods where the calculated margin requirements are rising significantly in order to alleviate procyclical effects.

b) Items for future discussions on how to enhance supervisory convergence, where divergences emerged

113. With regards to the supervision of portfolio margining, we have identified a number of supervisory convergence issues including the conditions considered to allow margin reductions between instruments and the application of the 80% threshold. We believe that the supervisory convergence with regards to the following issues should be further enhanced.

- The criteria used by NCAs to assess for the existence of an economic rationale for the price relation;
- Application of the requirement for correlation to be significant and reliable and to demonstrate resilience during stressed conditions;
- Implementation of the 80% threshold, especially with regards to the identification of different instruments/products and the conditions leading to offsets that can be larger than 80%;

c) Good practices,

114. The following good practices have been identified in the provided responses and the NCAs are encouraged to consider including them where applicable.

- Having direct (or also real time) access to supervised CCPs data and adopting more structured notification procedures (can also include automatic notification) with regards to operational incidents, late payments or default declarations. ESMA believes that the quality and timeliness of the NCAs analysis could benefit significantly from having direct access to the CCPs data. Of course, one would have to consider the potential cost implications;
- Request to CCPs to simulate past stress events in order to assess the efficiency of margin models to reflect different market conditions and understand how adverse market conditions are affecting their margin arrangements. ESMA considers that this type of analysis may proactively highlight potential deficiencies of the margin model;
- Ensure that recent (and relevant) stress events are not excluded from the margin look-back period due to its rolling nature;
- Request the CCP to use the regular default simulations (e.g. the fire drills performed under Article 58 of the RTS) to assess the adequacy of all assumptions embedded in the margin models, such as the liquidation period, under realistic and adverse scenarios;

d) Possible cases of non-compliance with the EMIR provisions or ESMA common principles and criteria.

115. One NCA does not require the application of an EMIR provision (i.e. minimum look-back period of 12 months) by the supervised CCP with regards to spot energy products. ESMA has already provided clarity through Q&As and has concluded that CCPs are not able to provide some of their services or perform some of their activities to standards which are below the minimum requirements established by Title IV of EMIR. In the meantime, the NCA has already contacted the relevant CCP, which is now planning to change its look-back practice for spot energy products in line with the requirements of EMIR from the beginning of 2017.

5 Supervisory Activities on Collateral Requirements

5.1 Overview

116. EMIR provides detailed requirements on collateral, under Article 46 of EMIR and Articles 37 to 42 of the RTS and its Annex I. These requirements cover the acceptable collateral, the review of collateral policies, the risks associated with the collateral, and the dispositions on bank guarantees. The NCAs were asked to provide responses to a number of questions on their supervisory approach and practices with respect to the assessment and review of CCPs' compliance with the above requirements, organised under 8 broad areas (issues).

117. The overview of the responses describing the supervisory practices of different NCAs is provided here separately for each issue, while the main findings across all areas are summarised in the following section.

Issue 1 – Review of collateral policies

118. Articles 37 RTS requires CCPs to maintain and review at least annually, its eligible asset policies and procedures. Policies and procedures for eligible assets, valuation of collateral, haircut and concentration limits shall be reviewed by the CCP at least annually. Such a review shall also be carried out whenever a material change occurs that affects the CCP's risk exposure. NCAs were asked how they checked whether the CCPs they supervise review their collateral policies and procedures at least annually or whenever a material change occurs that affects its risk exposure.

119. NCAs verified that the annual review took place, but the responses did not contain specific details of how they supervise that the CCPs would perform a review in response to a specific event that would affect the risk of the eligible collateral.

120. Furthermore, NCAs were asked whether they require their supervised CCPs to notify them or ask for an explicit authorisation or a non-objection before extending the list of acceptable collateral.

121. In this respect, ESMA staff noted that there are different practices across NCAs. In particular, in the event a CCP intends to change its collateral policy, five NCAs require a simple notification from the CCP if it changes the criteria for collateral acceptance, while seven NCAs require that the CCP obtains from them prior approval. No details were provided in the responses as to what constitutes a material change in the collateral policy. This will be further discussed in the following section of this report.

Issue 2 - Credit and Market risk for collateral

122. Article 39 and Annex I of the RTS impose that for financial instruments (such as transferable securities, money market instruments) and bank guarantees to be accepted

as collateral, the CCP can demonstrate that such instruments have low credit risk and/or have been issued by an issuer that has low credit risk based upon its internal assessment.

123. NCAs were asked how they supervise whether i) eligible collateral have low credit and market risk and ii) whether CCPs implement their policies for assessing these risks and updating the eligible collateral list.

i) Overall, NCAs have responded that the list of criteria for eligible collateral, or the methodology to establish this list, which ensure that the collateral accepted by the CCPs is of low credit risk and market risk, is reviewed at least on annual basis. However, ESMA staff have identified differences within this broad framework. In particular, the frequency of the ongoing supervision is not the same across NCAs. Some NCAs use monthly back-tests of the eligible collateral versus the rules of the collateral policy provided by their CCPs to assess whether the price changes of the securities accepted as collateral are within the haircuts applied to them.

ii) The ongoing compliance of the collateral with the provisions of the CCPs' policy is most commonly supervised by verifying the compliance of the collateral with concentration limits imposed by the CCP for non-cash instruments: this monitoring is focused on the composition of the collateral posted by members and it focuses on whether concentration limits are breached. However, supervision focuses more commonly on the monitoring of the ongoing compliance of the collateral composition against a policy. The compliance and soundness of the policy itself are less commonly supervised.

124. With reference to an update of the list acceptable of collateral, it was noted, the NCAs have to provide their assessment of the proposed addition of materially different new collateral. In certain cases, some NCAs assessed the change of the acceptable collateral as a significant change to the risk model implying a formal validation by the NCA and ESMA under Article 49 pf EMIR. While the NCAs' response focused on the addition of new collateral, one NCA specified that it would also have to give its approval to the CCP, e.g. including when market circumstances dictate the removal of some securities from the list of eligible collateral.

125. As per Article 41 of the RTS, the ongoing appropriateness of the policy has to be monitored, as new market developments may require changes. The supervisory review of such ongoing appropriateness was not detailed in most responses. Only one NCA responded that while its CCP only accepts sovereign bonds issued by certain countries of the Euro zone, the CCP is required to further assess the list of acceptable countries annually depending of the evolution of credit risk.

126. As per Section 1 (a) of Annex I of the RTS, the assessment of the credit risk of the securities can be the result of the establishment by the CCP of an internal credit score; and an external independent review can be used to assess market risk of the instruments accepted by the policy in addition to the internal review. ESMA staff noted that one NCA performs its own risk assessment of the eligible products, but did not see this practice mentioned in the responses of other NCAs.

127. Overall, ESMA staff noted that the assessment of liquidity risk (as per Section 1 (e) of Annex I of the RTS) in the collateral was scarcely documented in responses to the peer review, with the exception of one NCA which specified that it bases its assessment on the use by one CCP of ECB liquidity classes and on the use of numerical thresholds on the volatility of the bonds by another CCP.

Issue 3 - Enforceability of collateral and bank guarantees

128. As required by Section 1 of the Annex I of the RTS, financial instruments accepted as collateral shall be freely transferable and without any regulatory or legal constraints that impair liquidation.

129. Furthermore, Section 2 of Annex I of the RTS defines the requirements for CCPs to accept bank guarantees as collateral. In particular, it requires that bank guarantees shall be irrevocable, unconditional and the issuer cannot rely on any legal or contractual exemption or defence to oppose the payment of the guarantee. Bank guarantees can be honoured on demand within the period of liquidation of the portfolio of the defaulting clearing member providing it without any regulatory, legal or operational constraint or any third party claim on it and the suitability of the guarantor has been assessed. Furthermore, bank guarantees need to be fully backed by collateral. This last requirement start applying as of 15 March 2016 for collateral to cover transactions on energy derivatives.

130. NCAs were asked how they monitor the compliance of eligible collateral and of bank guarantees with the above requirements. The requirement related to the collateralisation of bank guarantees is analysed under Issue 5.

131. Most responses focused on the fact that the securities that are transferred to the CCP are freely tradable instruments, such as sovereign bonds. This meant that the NCAs rely on the list of eligible collateral to supervise its transferability.

132. Legal enforceability of the collateral arrangements is generally covered by the laws of the country of the CCP, and cross-border agreements are commonly the subject of independent legal opinions required by the CCP. This allows the CCP to analyse the implication of the legal frameworks of the countries concerned on the enforceability of the pledges. NCAs rely on the legal assessment performed by the CCP.

133. One NCA indicated that it continuously monitors the possible impacts of any change of legislation on the enforceability of collateral. Regarding bank guarantees, it should be noted that the majority of CCPs do not accept bank guarantees, and the responses reflected this fact. In one case, the NCA has reviewed the process used by the CCP to decide whether to accept a guarantor and in another case the NCA has validated the rules of the CCP related to the acceptation of guarantees. In all cases, the NCAs have indicated that they require a notification from the CCP for each new guarantor accepted by the CCP. The most stringent approach is to require that the CCP should obtain its approval before accepting a new guarantor.

134. One NCA has requested from the CCP an independent legal opinion on the guarantee, to verify that it actually is unconditional, payable on first demand, and that the issuing bank cannot refuse a payment on the basis of the member's insolvency.

135. It is noted that ESMA did not receive specific responses as to the timeliness of the payment of the guarantee in the event of a default. However, this should be regularly tested as part of the fire-drills which CCPs run.

Issue 4 - Marketability of collateral and reliability of prices

136. Annex I of the RTS requires that financial instruments accepted as collateral have an active outright sale or repo market, with a diverse group of buyers and sellers, to which the CCP can demonstrate reliable access, including in stressed conditions and price data is reliable and published on a regular basis.

137. NCAs were asked how they assessed whether financial instruments accepted by CCPs as collateral met the above requirement.

138. The majority of NCAs have indicated that the criteria used by the CCP for deciding which securities can be eligible assets are meant to guarantee such liquidity. Such selection criteria can be:

- limited to the ECB's first liquidity class,
- sovereign bonds
- equities within the leading index of the country of the CCP.

139. For bonds, the classification in ECB liquidity classes ensure that the ratio of availability of prices, because this metric is part of the definition of the liquidity class.

140. The NCAs have in the majority of cases relied on the fact that securities are traded on regulated markets or MTFs as evidence that the prices are reliable and that the securities can be liquidated, in particular for equities.

141. One authority has indicated not having performed a detailed analysis to ensure that the collateral has an active outright sale or repo market, with a diverse group of buyers and sellers, to which the CCP can demonstrate reliable access. However, ESMA staff take note of the fact that the CCP's collateral is mainly in cash and bonds. In addition, also the responses submitted by other NCAs regarding the validation of the reliability of market access and of prices rely heavily on the nature of such type of collateral, as opposed to detailing specific supervisory actions.

142. One NCA has indicated that access to liquidity was guaranteed by the fact that the CCP is a credit institution, which means that the access to central bank liquidity would prevent any issue from arising.

143. One NCA has indicated that the CCP monitors daily volumes and price movements of the equities it accepts as collateral using data from the exchange, and another NCA indicated that it used data from MIFID reporting for equities and for domestic bonds.

144. None of the NCAs have identified a specific impediment that would limit the CCP's capacity to assess or continuously monitor the liquidity of assets accepted as collateral.

145. Furthermore, NCAs were asked if they had identified any breaches from supervised CCPs with regards to the requirement of Annex II of the RTS that the average time-to-maturity of the portfolio of financial instruments of the CCP shall not to exceed two years.

146. None of the NCAs identified such a breach.

Issue 5 - Wrong way risk for collateral and guarantees

147. Article 46 of EMIR requires that bank guarantees can accepted only for non-financial counterparties and that the CCP takes such guarantees into account when calculating its exposure to a bank that is a clearing member. Commercial bank guarantees accepted as collateral are not issued by entities who are also clearing members of provide essential services to the CCP, are fully backed with collateral. Moreover, transferable securities and money market instruments accepted as collateral are not issued by entities who are a clearing member or provide critical services to the CCP.

148. NCAs were asked how they checked that the collateral accepted and the bank guarantees accepted by their CCPs did not present the specific wrong way risk described in the above regulatory requirement. Furthermore, NCAs were asked to describe how they assessed the compliance with the requirement for bank guarantees to be collateralised.

149. ESMA staff take note that no CCP accepts collateral that would present specific wrong way risk and that no CCP accepts self-referencing collateral, i.e. financial instruments issued by the clearing members, or in some cases by entities from the same group. In two cases, this restriction is extended to any security issued by an institution which provides the CCP with critical services such as settlement or liquidity. The NCAs rely on the CCP's collateral policies to supervise that this requirement is met.

150. Concerning the more generic wrong way risk, in other words the risk arising from the correlation between the financial stability of a clearing member and the value of the collateral posted by this member, one NCA reported that its CCP accepts stocks from the financial sector with a larger haircut than the haircut applied to stocks of other sectors, while another one reported that their CCP does not accept them at all.

151. There was also no information regarding the consistency of the application of generic wrong way risk provisions and the supervision thereof in the NCAs' responses, while ESMA staff has knowledge of at least one situation where the CCP applies different measures across its membership.

152. The supervision of wrong way risk relies on the review by the NCA of the acceptable collateral policy of the CCP, which occurs at least annually as described at Issue 1, and on the reporting of the breakdown of collateral and exposure by clearing member.

153. The requirement for bank guarantees to be collateralised was assessed by the NCAs by reviewing the CCPs' collateral policies. Four CCPs were using non-collateralised guarantees under an exemption which expired on 15-March-2016. All four CCPs had plans in place to phase them out, with one NCA mentioning plans to manage the phasing out of these instruments with concentration limits. The actual supervision of the timely removal of these guarantees was not documented as this happened after the time of submission of the answers to the peer review.

Issue 6 - Near to real time monitoring and valuation of collateral

154. Article 40 of the RTS requires that CCPs have established and implemented policies and procedures to monitor on a near to real time basis the credit quality, market liquidity and price volatility of each asset accepted as collateral. NCAs were asked how they supervised that the CCPs have met the above requirement.

155. The supervision of the frequency of the pricing of the collateral was based on the compliance of the policies and procedures of the CCP against the regulatory requirements. Only one NCA indicated having performed an on-site inspection of the processes and of the systems.

156. The daily monitoring of the credit quality, market liquidity and price volatility of accepted collateral is different between equities and bonds, and the supervision by the NCAs reflect this difference.

157. On the one hand, equities have near to real time market prices, which the CCPs can access via the exchange or through market data providers. On the other hand, bonds are valued at least daily, with certain CCPs referring to one intra-day valuation, and to ad-hoc revaluation in case of specific events. Moreover, where a bond has no price for a given day or when a price is stale, CCPs use a theoretical bond price. This is quite relevant given that even bonds belonging to the highest of the ECB's liquidity class "only" have a 95% availability and 50% for the second class. Model prices are therefore commonly used for the valuation of bond collateral.

158. One NCA indicated that the CCP performed a full reconciliation of the prices it uses against independent prices, and that this control was to be performed on an annual basis.

Issue 7 - Revision of haircuts

159. Article 41 of the RTS requires that CCPs monitor on a regular basis the adequacy of the haircuts and that CCPs should avoid as far as possible disruptive or big step changes in haircuts that could introduce procyclicality. NCAs were asked how they supervise the adequacy of the collateral haircuts of their CCPs.

160. Most NCAs require regular (either monthly or quarterly) backtesting of the haircuts in place at their CCPs, and would be notified in the event of a change in haircuts. In general, no detail was provided on the types of verifications conducted by NCAs on the back test reports received. One NCA have also received the report of an independent validation of the back-test of the haircuts. One NCA indicated that they did not request specific back-test from their CCP, but while the RTS requires that "a CCP shall monitor on a regular basis the adequacy of the haircuts", there is no prescriptive rule that this monitoring needs to take the form of a back-test, and the NCAs indicated that they perform their own analysis based on collateral data supplied by the CCP.

161. In terms of supervising the fact that the CCP's calculations are actually performed in compliance with the policies, only one NCA performed an on-site inspection of the CCP.

162. Furthermore, NCAs were asked how they check whether revision to the haircuts lead to big step changes that could incite procyclical risks.

163. Several NCAs have indicated that they had ensured, by means of a desk-based review of the CCP's policies and procedure, that their CCP had, or were in the process of putting in place, measures such as an anti-procyclicality policy or a specific calibration methodology which, not unlike the requirements on margins of Article 28 of the RTS, assigns a certain weight to past stressed observations in the setting of the haircuts.

164. This type of measure are not in place with all CCPs and while there are no such prescriptive provisions in the regulation for haircuts as those in place for margins in Article 28 of the RTS, it is noted that not all NCAs ask the CCPs to plan ex-ante measures in their methodologies to determine haircuts. Moreover, in theory the use of measures based on a specific calibration is not a sufficient guarantee that the haircut will not present so-called "cliff" effects, and it is unlikely that the introduction of more prescriptive rules on the way the haircut is determined will be efficient, as opposed to measures on the way the haircuts behave.

Issue 8 - Concentration limits on collateral

165. Article 42 of the RTS requires that CCPs shall inform the competent authority and the clearing members of the applicable concentration limits and of any amendment to these limits. NCAs were asked how they supervised the compliance of the composition of the collateral held by their CCPs with the above requirement.

166. In order to monitor the diversification of the CCPs' collateral and the compliance with any applicable concentration limits, CCPs typically report to the NCAs on the composition of the collateral per member. This allows for the on-going supervision of whether concentration limits are met. One NCA has reported that breaches of such limits occur every month but insisted that these breaches were operational issues and that they were not significant; one NCA reported one instance of a breach, and others have not reported breaches. One CCP uses an automated system to automatically value at zero any collateral which would breach concentration limits, which makes the supervision of these limits less critical.

5.2 Main findings

a) Divergences in the supervisory approach adopted by competent authorities

167. NCAs have different practices to monitor compliance of collateral requirements and different mechanism to be notified of, to monitor or approve changes to the list of acceptable collateral. However, these minor differences do not challenge the monitoring of the compliance of the CCPs with Article 37 of EMIR, which requires the review of collateral policies to take place at least annually or whenever a material change occurs.

168. Moreover, as already mentioned in section 3 above, ESMA has also identified that i) there is no consistent approach across NCAs to determine when a change in the eligibility of collateral is significant for the purpose of article 49 of EMIR, and ii) the NCAs do not use on-site inspection to validate that CCPs' systems and procedures act in accordance with approved policies. Measures to follow-up on these divergences have been already proposed in section 3.2 above.

b) Items for future discussions on how to enhance supervisory convergence, where divergences emerged

169. ESMA has identified the following areas where supervisory convergence could be further enhanced:

- the on-going review of compliance of CCP collateral policies with the collateral requirements and of CCP collateral operations with the approved collateral policies.

- the review of the level of credit and market risk of acceptable collateral, in particular with respect to the appropriateness of the concentration limits.

- the review of the effective liquidity of collateral (i.e. the possibility to monetise it in stressed market conditions), including a regular review of the collateral market depth, i.e. of the tradable volumes and of the impact of market events on volumes. While this is expected to be very difficult for certain eligible securities, ESMA believes the requirement for the collateral to be of low credit and market risk with a liquid market should be assessed by verifying the capacity of the CCP to trade out of the collateral within the haircuts and within the time constraints imposed by the management of the default.

- of the review of the effective consistent application of the wrong-way risk requirements to different categories of clearing members.

- the review and management of potential procyclical effects of changes in collateral haircuts.

170. ESMA will further assess how to promote supervisory convergence on these areas.

C) Good practices

171. The following good practices have been identified in the provided responses and the NCAs are encouraged to consider including them where applicable.

- With respect to the supervision of the enforceability of collateral arrangements, NCAs could monitor on an ongoing basis potential market or legal developments, such as legal challenges as well as changes in law.

- NCAs could request the CCPs to provide a detailed and independent validation of the prices and of the liquidity of the collateral by processing other forms of market data such as MIFID reporting, in order to verify the marketability of collateral and reliability of prices. Of particular relevance would be the average trade size, the trading frequency, and other measures of market depth.

- where a CCP uses model prices for certain securities, NCAs could request the CCPs to perform a regular reconciliation of the prices against an independent source of prices to improve the reliability of prices.

6 Conclusion

172. Through the current Peer Review, ESMA identified a few areas where divergences emerged with respect to the NCAs' supervisory approach in assessing CCPs compliance with margin and collateral requirements.

173. While Article 21(3) of EMIR allows NCAs to establish the frequency and depth of the review of the arrangements, strategy, processes and mechanisms that a CCP implemented to comply with EMIR requirements and of the evaluation of the risks to which the CCP is, or might be, exposed, having regard to the size, systemic importance, nature and complexity of the activities of a CCP; ESMA noted that NCAs supervising similar CCPs in terms of size, systemic importance, nature and complexity of the activities adopted different approaches with respect to the frequency and depth of their review, including whether to conduct of on-site inspections.

174. Overall, ESMA appreciates that, in order to pursue an efficient use of their resources, NCAs adopted a risk-based approach in defining the scope of their review and the need for on-site inspections. ESMA will monitor through its participation in CCP colleges the depth of the annual reviews and ad hoc desk-based reviews promoting a consistent approach towards similar CCPs and solicit a more systematic use of on-site inspections.

175. In particular:

a. With respect to margin requirements, ESMA has identified the following divergent supervisory approaches on the assessment of compliance with margin requirements, with regards to how frequently and actively the NCAs assess and review:

   i. the CCPs back testing and sensitivity analysis reports, including also analysis on instruments without a historical observation period. When NCAs do not already review the ex-post (e.g. back testing) reports on a monthly or quarterly basis, they are urged to request the CCPs to provide on a frequent basis the aforementioned reports, actively analyse the results and follow up potential issues. NCAs should also consider asking the CCPs to enhance their back testing reports with results on instruments without a historical observation period, where the relevant clearing activity is material, in order to verify whether the margin requirements are based on conservative assumptions.

   ii. the adequacy of the criteria used by CCPs to set the confidence level and the liquidation period. Where relevant, NCAs are encouraged to re-assess on a regular (e.g. at least annual) basis the adequacy of these criteria using, where applicable, updated quantitative analysis.

   iii. the efficiency of counter-cyclical tools used by CCPs. With reference to the three options provided in Article 28 of the RTS, all NCAs should more actively assess the efficiency of the CCPs counter-cyclical measures on a regular, frequent and holistic basis. Especially with regards to NCAs that supervise CCPs that use the 25% margin buffer (i.e. option (a) of RTS article 28), the NCAs are asked to check whether CCPs exhaust in practice the buffer in periods where the calculated margin requirements are rising significantly in order to alleviate procyclical effects.

b. With respect to collateral requirements, ESMA notes that NCAs have different practices to monitor compliance of collateral requirements and different mechanism to be notified of, to monitor or approve changes to the list of acceptable collateral. However, these minor differences do not challenge the monitoring of the compliance of the CCPs with Article 37 of EMIR, which requires the review of collateral policies to take place at least annually or whenever a material change occurs.

176. In addition, ESMA identified the following items for future discussions on how to enhance supervisory convergence:

a. Overall, ESMA recognises the need to promote convergence on the approach to (i) identifying new services and activities requiring an extension of the authorisation under Article 15 of EMIR, and (ii) determining significant changes to risk model and parameters under Article 49 of EMIR and in this respect ESMA adopted an opinion in November 2016.

b. Moreover, ESMA considers that the coordination of the focus of NCAs' supervisory activities, including desk-based reviews and/or on-site inspections, could further promote convergence.

c. With regards to margin requirements, ESMA identified a number of supervisory convergence issues on NCAs' supervisory approach towards portfolio margining, including the conditions considered to allow margin reductions between instruments and the application of the 80% threshold.

d. With respect to collateral requirements, ESMA has identified the following areas where supervisory convergence could be further enhanced with respect to the on-going review of:

- the compliance of CCP collateral policies with the collateral requirements and of CCP collateral operations with the approved collateral policies.

- the level of credit and market risk of eligible collateral, in particular with respect to the appropriateness of concentration limits.

- the effective liquidity of collateral, including a regular review of the collateral market depth and the effectiveness of the CCPs' procedures to liquidate collateral within the haircuts and within the time constraints imposed by the management of the default.

- the effective consistent application of the wrong-way risk requirements to different categories of clearing members.

- the potential procyclical effects of changes in collateral haircuts.

177. ESMA will further reflect how to prioritise work on the items listed above.

178. Furthermore, ESMA identified eight good practices from the responses provided by the NCAs, as presented in Box 1 below. NCAs are encouraged to consider implementing them where appropriate.

Box 1: Good Practices

1) With respect to format of the annual review under Article 21, ESMA considers that the following two approaches are good practices:

   - update the risk assessment for the initial authorisation to reflect any changes that occurred during the year under review, where changes are presented in revision marks. This approach allows to maintain a comprehensive overview of the CCP's compliance with respect to all EMIR requirements, being updated at least annually.

   - provide a review report along the structure of the risk assessment template, focusing only on the changes that occurred during the year under review with respect to the CCP's compliance with all EMIR requirements.

   Although both approaches ensure that the review encompass all changes occurred during the year under review with respect to all EMIR requirements, they have their own pros and cons in terms of drafting efforts and readability; therefore, it is left to the NCA to decide what approach to implement taking into account the view of the college members.

With respect to margin requirement:

2) Having direct (or also real time) access to supervised CCPs data and adopting more structured notification procedures (can also include automatic notification) with regards to operational incidents, late payments or default declarations. With regards to the direct access to CCPs data, one has also to consider the cost implications;

3) Request to CCPs to simulate past stress events in order to assess the efficiency of margin models to reflect different market conditions and understand how adverse market conditions are affecting their margin arrangements;

4) Ensure that recent (and relevant) stress events are not excluded from the margin look-back period due to its rolling nature;

5) Request the CCP to use the regular default simulations (e.g. the fire drills performed under Article 58 of the RTS) to assess the adequacy of all assumptions embedded in the margin models, such as the liquidation period, under realistic and adverse scenarios;

With respect to collateral requirements:

6) Monitor potential market or legal developments in order to review on an ongoing basis the enforceability of collateral arrangements

7) Request the CCPs to provide a detailed and independent validation of the prices and of the liquidity of the collateral by processing other forms of market data such as MIFID reporting, in order to verify the marketability of collateral and reliability of prices. This should include relevant measures of market depth, such as average trade size and trading frequency.

8) Request the CCPs using model prices for certain securities, to perform a regular reconciliation of the prices against an independent source of prices to improve the reliability of prices.

179. Moreover, ESMA identified only one possible case of non-compliance with the EMIR provisions or ESMA common principles and criteria: one NCA did not require the supervised CCP to apply the EMIR provision on minimum look-back period of 12 months with regards to spot energy products. In the meantime, the NCA has already contacted the relevant CCP, which is planning to change its look-back practice for spot energy products in line with the requirements of EMIR from the beginning of 2017.

180. Finally, with respect to the timing of the annual review, ESMA appreciates that in some cases the delay in the finalisation of the first annual review did not necessarily coincide with a delayed initiation of this activity, and understands that the scheduling of the annual meeting of the college, to which the review was to be presented, could have contributed to a further delay in the finalisation of the annual review. Looking forward, ESMA urges NCAs to complete the annual review in time for submission to the respective CCP college annual meeting, i.e. within 12 months from the previous review/meeting.