European Securities and Markets Authority

Final Report

Guidelines on Article 25 of Directive 2011/61/EU

17 December 2020 | ESMA34-32-552

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I. Executive Summary

In April 2018, the European Systemic Risk Board (ESRB) published a set of recommendations to address liquidity and leverage risk in investment funds (the ESRB recommendations[1]).

The ESRB 'Recommendation E' requests ESMA to provide guidance on Article 25 of Directive 2011/61/EU and, *inter alia*, recommends ESMA to:

- give guidance on the framework to assess the extent to which the use of leverage within the AIF sector contributes to the build-up of systemic risk in the financial system ["ESRB Recommendation E(1): Assessment of leverage-related systemic risk"];
- give guidance on the design, calibration and implementation of macroprudential leverage limits ["ESRB Recommendation E(2): Macroprudential leverage limits"].

On 27 March 2020, ESMA published a Consultation Paper (CP)[2] on the proposed draft Guidelines.

The consultation closed on 1 September 2020.

This Final Report provides an overview of the feedback received through the responses to the CP and explains how ESMA took this feedback into account. It also contains the final Guidelines on Article 25 of Directive 2011/61/EU.

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Section II sets out an overview of the document. Annex I provides the Feedback Statement and Annex II sets out the cost-benefit analysis which details the expected impact of the Guidelines.

The Guidelines are set out in Annex III.

Next Steps

The Guidelines will be translated into the official EU languages and published on the ESMA website. The publication of the translations will trigger a two-month period during which NCAs must notify ESMA whether they comply or intend to comply with the guidelines. The Guidelines will apply from the end of this two-month period.

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[1] https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation180214_ESRB_2017_6.en.pdf

[2] https://www.esma.europa.eu/sites/default/files/library/esma34-39-967_consultation_paper_on_guidelines_on_art_25_aifmd.pdf

II. Overview

Background

1. The Guidelines have been drafted in response to a recommendation by the ESRB for ESMA to produce guidance on Article 25 of Directive 2011/61/EU.
2. Article 25(1) of the AIFMD provides that Member States shall "*ensure that the competent authorities of the home Member State of the AIFM use the information to be gathered under Article 24 for the purposes of identifying the extent to which the use of leverage contributes to the build-up of systemic risk in the financial system, risks of disorderly markets or risks to the long-term growth of the economy*".
3. Leverage limits should be based on the leverage measures set out in Directive 2011/61/EU: the gross method as set out in Article 7 of the Delegated Regulation 231/2013 and the commitment method as set out in Article 8 of the same text.
4. The Guidelines are without prejudice to any further regulatory updates coming from the IOSCO work on leverage, the AIFMD review and any further calibration of the indicators that may be deemed appropriate in the future.

Public consultation

5. On 27 March 2020, ESMA published a CP on the proposed draft Guidelines.
6. The consultation closed on 1 September 2020.
7. ESMA received 24 responses, 4 of which were confidential, mainly from asset managers and their associations. The answers received are available on ESMA's website unless respondents requested confidentiality. ESMA consulted the Securities and Markets Stakeholders Group (SMSG), but the SMSG chose not to opine on these guidelines.
8. In general, respondents agreed with ESMA's approach on the assessment of leverage related systemic risk and the design of leverage limits.
9. The detailed content of the responses and ESMA's feedback is provided in the Feedback Statement.[3]

[3] See Annex I of this Final Report.

III. Annexes

Annex I: Feedback Statement

Q1 What are your views on the frequency at which the risk assessments should be performed by NCAs?

1. Respondents unanimously acknowledged the need of a harmonised assessment framework regarding the assessment of leverage related systemic risk in the AIF sector, although they expressed divergent views regarding the frequency at which NCAs should perform their risk assessment.

2. Several respondents agreed with ESMA's proposal that NCAs should perform their risk assessment on a quarterly basis and that AIFMs shall provide NCAs with the AIFMD data reporting on a quarterly basis for the leveraged AIFs they manage.

3. However, the majority of respondents pointed out that the reporting of the risk assessment should be aligned with the reporting frequency prescribed by Article 110 of Commission Delegated Regulation 231/2013 (quarterly, half-yearly or yearly depending on AuM managed by the AIFM, the use of leverage and other factors). According to these respondents, the frequency of the risk assessment should not be higher than the AIFMD reporting frequency and should not lead to additional reporting obligations (i.e. AIFMs that report on a less than quarterly basis should not increase the frequency of their reporting for the purpose of the risk assessment by NCAs).

4. Few respondents highlighted that the frequency of the risk assessment should be aligned to the type of AIFs, the investment horizon of its invested assets and/or its leverage risk and would advise higher reporting frequency for potentially riskier funds (e.g.: hedge funds).

5. One respondent suggested an annual reporting frequency.

ESMA's response

6. ESMA took note of the concerns expressed by some respondents that quarterly risk assessments should not lead AIFMs to report more frequently than what is prescribed by Article 110 of Commission Delegated Regulation 231/2013.

7. ESMA clarifies that the approach on which ESMA consulted was not to require all AIFMs to report on a quarterly basis for the purpose of the risk assessment. Such an approach would have been in contradiction with the reporting frequency defined in Article 110 of Commission Delegated Regulation 231/2013. Instead, the proposal was to recommend NCAs to perform, on a quarterly basis, risk assessments based on the information reported by AIFMs either on quarterly, half-yearly or yearly basis. This implies that the quarterly risk assessments would not always be performed on the basis of the same population of AIFMs because AIFMs do not all report on the same frequency. However, the quarterly risk assessments will enable NCAs to monitor the evolution of possible leverage-related risks with new data points every quarter.

8. Based on this feedback, ESMA decided to stick to the proposal and clarified in the final guidelines that the risk assessment should be performed on the basis of the information that AIFMs report to NCAs, according to the regulatory reporting frequencies set out in Article 110 of Commission Delagated Regulation 231/2013.

Q2 What are your views on the sample of funds to be included under Step 1? Do you agree in including in the risk assessment not only substantially leveraged funds but also funds not employing leverage on a substantial basis which may pose financial stability risks?

9. Broadly, stakeholders endorsed ESMA's two steps approach, although divergent views were expressed on the sample of funds to be included under Step 1.

10. The vast majority of respondents argued that ESMA's proposal to consider not only substantially leveraged funds but also funds not employing leverage on a substantial basis which may pose risks to financial stability was too broad in scope. They considered that only substantially leveraged AIFs should be included in the scope of the analysis.Therefore, they would favour a deletion of paragraph 13) letters b)-c) and paragraph 14 of the proposed guidelines. A minority of these stakeholders would also prefer combining a leverage metric (i.e. substantial leverage) with a size component (i.e.: 1 billion or 500 million Euro of Assets under Management – AuM).

11. A large number of respondents, while positively noting that the two-steps approach followed by ESMA was in line with the framework analysis set out by IOSCO, suggested a complete alignment between Step 1 of the draft guidelines and IOSCO Recommendation 1. In their view, the fact that ESMA's proposal would have a broader scope than IOSCO's recommendations could potentially cause an uneven playing field as European funds would have to respect stricter rules than funds globally. Therefore, they suggested replacing "*may cause risks to financial stability*" in paragraph 18 of the draft guidance with "*more likely to pose risks to financial stability*" as set out in IOSCO's recommendations.

12. Few respondents agreed with ESMA's proposal of including under Step 1 funds that employ leverage on a substantial basis as well as non-substantially leveraged AIFs that may cause risks to financial stability. Those respondents recognised that also funds employing lower leverage, but more complex investment strategies may potentially be a source of systemic risk. Nonetheless, some of those respondents would advise a clear identification of the parameters to be used to select such funds in order to avoid divergent application among Member States, as they view the reference to "unusually high leverage" too vague and potentially subject to different interpretation by NCAs.

13. Although recognising that the quantification and identification of the potential risk stemming from the use of leverage could be hampered by the quality of the data currently available in the AIFMD reporting, a number of respondents highlighted that leverage alone should not be automatically considered as a sign of potential systemic risk and that NCAs should also assess other elements (e.g. the investment strategy, the investment horizon, the share of the market represented by certain types of funds, collateral and

hedging mechanism, etc.). Furthermore, those respondents were conceptually against the fact that the size of AuM could provide a credible indication of leverage-related systemic risk, as they claimed there was little evidence that size could constitute a risk factor.

14. On the contrary, for other respondents, the proposed scope was too narrow. In this respect, they argued that systemic risk may be caused not only by leverage but also by other factors, hence they suggested including in scope all types of funds and not just AIFs.

15. Lastly, one respondent suggested clarifying whether NCAs should consider systemic risk stemming from leveraged funds at national level, at EU level or globally.

ESMA's response:

16. First, ESMA disagrees with the statement made by some respondents that Step 1 in the draft guidelines was broader than Step 1 as set out in the IOSCO recommendations. Indeed, ESMA notes that in IOSCO Recommendation 1, the language 'may pose' and 'are likely to pose' are both used. Moreover, IOSCO's recommendations are not prescriptive in determining which funds are likely to pose systemic risk, and leave it to competent authorities to decide, based on measures of leverage, which funds should be included under Step 1 and then assessed under Step 2.

17. ESMA took note of the comments made by several respondents according to which only AIFs using leverage on a substantial basis should be in scope of Step 1. ESMA is of the view that some AIFs that do not use leverage on a substantial basis could potentially cause risks to financial stability. Indeed, in the economic rationale supporting its Recommendation, the ESRB explains that NCAs may differentiate leverage limits based on investment fund type or profile, thus taking into account their contribution to systemic risk. For instance, funds particulalry exposed to specific risks such as liquidity mismatches or concentrated exposures to financial institutions may be subject to leverage limits, whether they use leverage on a substantial basis or not.

18. Furthermore, Article 25 of AIFMD does not limit leverage limits to AIFs using leverage on a substantial basis.

19. Therefore, ESMA did not find it appropriate to exclude mechanestically from Step 1 AIFs that do not use leverage on a substantial basis and maintained the same approach in the final guidelines.

Q3 Do you agree with the proposed leverage and size threshold identified under Step 1? Would you set the same threshold for all AIFs, or would you be in favour of setting different thresholds for different types of AIFs (e.g.: real estate, hedge funds, private equity, etc.) or sub-types of AIFs (please specify) based on a statistical analysis (e.g. percentile)? Should you prefer the latter option, please provide proposals and detailed arguments and justification supporting them.

20. The vast majority of respondents would set the same threshold regardless of the type of AIFs. Those respondents argued that it would not be appropriate to differentiate the

analysis based on the category of AIFs, also in light of the lack of a clear and harmonised definition of the different types of AIFs at EU level.

21. A significant number of respondents reiterated their views already expressed in their answer to Q2 and invited ESMA to include in scope substantially leveraged AIFs only, regardless of the size of the AuM. Those respondents considered that there would be no added value in including large funds employing low leverage. Among these respondents, only a few would prefer coupling the substantial leverage threshold with a size component (i.e. minimum 1 billion Euro).

22. One respondent argued that the AIFMD leverage calculation methodologies (i.e. gross and commitment methods) were not adequate for the purpose of measuring leverage related risks. For this respondent, those measures should be complemented and refined by other metrics. Furthermore, this respondent would base leverage limits on the investment strategy of the fund rather than on the category of the AIF and, to this end, provided some examples.

23. On the other hand, a number of respondents would agree to differentiate the scope of the analysis based on the type of AIF, as they considered that a common threshold in terms of substantial leverage and/or the size of the AuM would fail to consider the specificities of each AIF category. Against this background, they would agree in setting different thresholds for different types and sub-types of AIFs.

24. Some respondents reiterated their concerns regarding the reference to funds “employing unusually high level of leverage” and would appreciate some clarifications on this term.

25. Two respondents agreed with ESMA’s proposal regarding the scope of the analysis.

26. Lastly, one respondent suggested assessing funds’ use of leverage by asset class and long/short exposures in line with the IOSCO framework. Moreover, in light of the fact that that the data reported under the AIFMD may not allow for a full assessment on an asset class basis, this respondent was of the view that the Adjusted Gross Notional Exposures (GNEs) should be used and be possibly complemented by Net Notional Exposures (NNEs).

ESMA’s response:

27. In light of the broad support from respondents, ESMA maintained its proposal to have the same thresholds for all AIFs.

28. Furthermore, ESMA did not deem it appropriate to couple the criterion of substantially leverage AIFs with a minimum size of 1 billion euros because such a threshold would exclude a very large number of AIFs from Step 1.

Q4 Would you identify other relevant transmission channels?

29. Respondents unanimously agreed with the transmission channels identified by ESMA.

30. Nonetheless, one respondent highlighted that the four transmission channels included in the draft guidance would not be relevant for all type of funds, and in particular for private equity funds. Furthermore, it disagreed with ESMA's assessment that the illiquid nature of private equity funds poses risks of fire sales as highlighted in Annex II of the draft guidance. Against this background, this respondent proposed to exclude closed-ended private equity funds from Step 1 of the risk assessment.

ESMA's response:

31. In light of the very broad support from respondents, ESMA did not deem it necessary to amend Annex II of the guidelines.

Q5 What are your views on using not only leverage indicators, but also other types of indicator such as those indicated under Table 2 of the draft Guidelines? Do you agree with the list of indicators provided?

32. The majority of respondents agreed with ESMA's approach of considering additional types of indicators other than leverage measures such as those included under Table 2 of the draft guidelines. Those respondents highlighted that leverage indicators do not provide per se a clear indication on systemic risk and should be complemented by a set of additional measures. One respondent was of the view that, in any case, additional indicators should be selected based on the type of fund under scrutiny. Another respondent flagged that NCAs should develop an analytical approach to distinguish the different types of leverage created through the use of derivatives (i.e. derivatives creating leverage for hedging/risk management purpose vs. derivatives employed for other purposes which may create/increase risk).

33. However, one respondent highlighted that the AIFMD reporting data was not sufficient to underpin and inform leverage related risk assessments, and would welcome an integration of the IOSCO Recommendations into the AIFMD Level 2 Regulation, in line with ESMA's letter to the European Commission on the AIFMD review.[4] For this stakeholder, an alignment between the two frameworks would allow for the use of additional data, such as the leverage expressed on an asset class basis and long/short exposures, variation margins, DV01 and CS01 measures.

34. One respondent, while agreeing on the use of additional indicators, highlihgted that NCAs should use the data already reported under the AIFMD reporting framework, without putting additional burden on AIFMs.

35. On the other hand, a number of respondents argued that no indicator other than leverage indicators should be used. In their view, the risk assessment under Step 2 should only take into consideration the leverage measures already defined by the AIFMD, as there is no clear legal basis to consider the use of other indicators. Among these respondents, an industry association suggested to refrain from using adjusted gross leverage and financial

[4] "ESMA believes the IOSCO recommendations give rise to a need to amend the current reporting of the gross method calculation in Article 7 of the Commission Delegated Regulation (EU) No 231/2013, to ensure alignment with the IOSCO framework." See https://www.esma.europa.eu/sites/default/files/library/esma34-32-551_esma_letter_on_aifmd_review.pdf p. 9.

leverage as those were not defined under the AIFMD. Another respondent, while agreeing that only leverage measures defined by the AIFMD should be used, proposed that NCAs might request the information regarding additional indicators on an ad-hoc basis, without systemically introducing such criteria in every risk assessment.

36. Lastly, some stakeholders challenged the notion of “group of funds” introduced in Table 2 of the draft guidelines, arguing that its meaning was not entirely clear and could include different interpretations and potentially lead to a local bias.

ESMA’s response

37. First, ESMA disagreed with the statement made by some respondents that there was no legal basis for NCAs to use other indicators than leverage measures to assess risks pose by AIFMs. Indeed, Article 25 of AIFMD does refer to the information provided by AIFMs under Article 24 of AIFMD which includes a variety of information among which measures of leverage.

38. Therefore, in light of the broad support expressed by respondents, ESMA decided to maintain its original proposal to recommend for NCAs to use other indicators than leverage measures when analysing AIFs and group of AIFs under Step 2.

Q6 What are your views on using not only AIFMD data but also other external data sources to perform the assessment? Which types of external data sources would you consider more useful for the purpose of performing the assessment under Step 2, other than those already identified in Annex of to the draft Guidelines?

39. The majority of the respondents saw no merit in the use of additional data besides the one already reported in the AIFMD reporting framework. In their view, the AIFMD reporting was sufficient to perform the risk assessment and no further data should be needed.

40. Nevertheless, respondents unanimously agreed that *should there be the need* to use external data, this should be up to the NCA to build their framework and further reporting requirements by AIFMs should be avoided. Furthermore, NCAs could use external data sources already available (e.g. databases of national central banks).

41. Moreover, several respondents highlighted that if additional external data was used, it would be of paramount importance to ensure its consistency and comparability among Member States, in order to avoid a divergent application of the guidelines.

42. While highlighting the importance of using consistent data across Member States, few respondents agreed to the use of external data in order to complement the AIFMD reporting data.

ESMA’s response:

43. ESMA acknowledges the comments made by many respondents that quarterly risk assessments should be solely based on AIFMD data. However, ESMA remains

convinced that there is merit for NCAs to also consider other sources of data to conduct their quarterly risk assessments. Therefore, ESMA did not modify the guidelines and confirmed that if NCAs use other data sources, this should not create any other reporting obligations on AIFMs.

Q7 Which other restrictions would you consider as appropriate?

44. Respondents almost unanimously agreed that no further restrictions should be added other than those already indicated in the draft guidelines.

45. Several respondents also highlighted that, in their view, NCAs should engage in a proactive dialogue with AIFMs rather than automatically impose leverage limits as a consequence of their assessment. They would see merit in first engaging in other types of supervisory measures (e.g. put the AIF(s) under direct risk monitoring and supervision, assessing risk management processes…) before concluding leverage restrictions are needed. In their view, imposing hard constraints on the AIF(s) may entail unintended consequences.

46. Only one respondent suggested considering the application of gates or liquidity fees to avoid fire sales and/or limit market impact, as additional tools to be used.

47. One respondent highlighted that as the AIFMD did not apply to non-EU AIFMs, NCAs should not consider imposing leverage limits on AIFs managed by non-EU AIFMs.

48. Lastly, one respondent highlighted that, in any case, restrictions would have to be imposed based on the source of risk and the transmission channel through which the risk is likely to materialise (e.g. if there are concerns regarding the ability of the AIF to meet its margin calls on derivative positions due to the illiquidity of the underlying assets), an NCA may consider imposing specific requirements in relation to liquidity rather than leverage.

ESMA's response

49. Based on the broad support from respondents, ESMA did not modify the list of possible restrictions NCAs may impose on AIFMs.

Q8 What are your views on the application of the leverage limits? Should those be applied only on the single fund or, where appropriate, limits should also be applied on group of funds? In this case, how would you identify the group of funds?

50. Respondents broadly disagreed with the concept of imposing leverage limits in itself, arguing that leverage was not a meaningful proxy for systemic risks or risks to financial stability.

51. Nevertheless, the vast majority of respondents was of the view that, should leverage limits be applied, this should be done at the single fund/sub-fund level, rather than on a group of funds. Their view was that risks are best managed in a targeted way at the individual

fund level, taking into account the fund's investment objective, investment profile and assets and liabilities, taking also into account the fact that the guidelines do not provide a clear definition of the concept of "group of funds". They also highlighted that should the concept of "group of AIFs (funds)" be kept within the final Guidelines, it would be of paramount importance that the term "group of AIFs (funds)" is properly clarified and defined.

52. Those respondents also reiterated their view that leverage limits should be viewed as a last resort measure to be used in a crisis context, and that NCAs should previously consult/actively engage with the AIFM before imposing the leverage limit, after having exhausted potential other actions on the AIF. One respondent suggested that NCAs should clearly justify the length and the amount of the leverage limits at the time of implementation and explain how these risks would be evaluated and how leverage limits of a set duration and amount are intended to ameliorate the risks.

53. One respondent suggested that the final guidelines should ensure that NCAs co-ordinate their action towards a coherent interpretation of the guidelines across Europe based on objective criteria. In this context, another respondent highlighted the need to ensure a co-ordinated action between ESMA and NCAs in the application of leverage limits, in order to ensure an harmonised measurement of leverage across Europe and a sound macro-prudential framework, also supporting ESMA's proposals in the ESMA's advice to the European Commission on the AIFMD review.[5]

54. A number of respondents highlighted the interaction between the leverage limits and the contractual relationship between the AIFM and the AIF. In their view, the characteristics of the investment strategy of the AIF are inherent features of the contractual relationship (and by extension the disclosure to the investors) and amending such elements on a unilateral basis, even temporarily, without the client's approval would be contrary to the asset manager's core fiduciary duty and will fundamentally change the economics of the investment for investors.

55. Lastly, several respondents highlighted the importance to ensure that leverage limits would not cause unintended consequences, such as procyclical effects or spill over effects. In their view, these risks would be more likely to materialise if the limits are applied to a group of funds, rather than on a single fund basis.

ESMA's response

56. ESMA took note of the comments made by several respondents that leverage limits should be applied at a fund level and not at a group of funds level.

57. ESMA stresses that if NCAs have to impose leverage limits because of a threat to financial stability, it is very likely that the threat would stem from several AIFs and not from a single AIF. However, this does not mean that leverage limits would be automatically the same for all AIFs of the group and ESMA expects NCAs to adopt

[5] Ibidem.

leverage limits that are tailored to the characteristics of each AIF that collectively create a risk for the stability of financial markets.

58. Therefore, ESMA did not modify its approach and kept the reference to group of AIFs in the final guidelines.

Q9 How would you assess the efficiency of leverage limits in mitigating excessive leverage?

59. A number of respondents highlighted that leverage limits would be nothing but efficient in limiting systemic risk. Among these respondents, one highlighted that AIFMs would find workaround solutions to the limits through financial engineering or feel incentivised to reduce hedging in order to report lower leverage levels. Furthermore, leverage limits may lower the liquidity of the market as leveraged market participants often buy and sell mispriced assets returning them towards fair value. For one respondent, there are already valid systems to mitigate excessive risks, such as margin calls, collateral and funding requirements by trading counterparties.

60. A number of respondents feared that leverage limits may lead to market inefficiencies and hinder competition between Member States and push funds to relocate outside Europe or investors to choose third-country AIFs. To these respondents it is also of paramount importance that the framework is applied consistently among Member States, as there is no clear definition of what constitutes “excessive leverage”. One respondent reiterated its concerns that the introduction of such limits could hinder the contractual relationship with the client, suggesting that NCAs should take into consideration in their assessment not only the risks to financial stability, but also risks that are relevant in terms of investors’ protection.

61. On the contrary, several respondents supported the introduction of the framework as an effective and efficient tool to mitigate excessive leverage and viewed leverage limits as highly efficient in mitigating potential systemic risks, if applied as a last resort measure and after discussions with AIFMs. In such cases, imposing leverage limits on identified funds, in exceptional cases and circumstances, would be an efficient measure. Furthermore, leverage limits should be proportional to the magnitude of potential systemic risk.

ESMA’s response

62. ESMA took note of the responses and the support expressed by several respondents for the framework and the efficiency of leverage limits in certain circumstances. Regarding the risk of relocalisation outside Europe, ESMA believes that this risk was not supported by any evidence.

Annex II: Cost-Benefit Analysis

1. Technical options to identify the sample of funds for the purpose of imposing leverage limits

Policy Objective	**NCAs should assess the extent to which the use of leverage within the AIF sector contributes to the build-up of systemic risk in the financial system. The assessment of the leverage-related systemic risk posed by the AIF sector ("the risk assessment") should be performed on a sample of leveraged AIFs which could potentially be a source of systemic risk.**
Baseline scenario	Under Step 1 of the draft guidelines, NCAs should identify the sample of funds which may cause risks to financial stability; under Step 2, NCAs should then evaluate potential risks to financial stability of those funds selected under Step 1. The baseline scenario should be understood for this CBA as including in the sample of funds selected under Step 1 only the AIFs employing leverage on a substantial basis. Given that substantially leveraged AIFs have to report their use of leverage, this option would be the simplest to assess, as NCAs will easily find this information in the AIFMD reporting framework. This would also be in line with the ESRB Recommendations.
Technical proposal	In order to include in the scope of the risk assessment a larger sample of leveraged funds that may pose risks to financial stability, ESMA deems necessary to consider not only AIFs employing leverage on a substantial basis, but also those which may cause risks to financial stability despite not being substantially leverage.
Benefits	The introduction of this Guideline aims at contributing to safeguarding financial stability and limiting the potential sources of systemic risks coming from the use of leverage in the AIF sector. The policy objective is in line with the ESRB Recommendations which recommend ESMA to give guidance on the framework to assess the extent to which the use of leverage within the AIF sector contributes to the build-up of systemic risk.

	Investment fund managers are obliged to report granular data for each leveraged AIF they manage to NCAs, including detailed information on the investment fund's use of leverage, size, investment strategies, principal exposures, geographical focus, investor ownership and concentration, instruments traded, market risk, counterparty risk profile, liquidity profile (including redemption profile), and operational and other risk aspects. In this context, AIFs with a leverage ratio of more than three times their NAV, calculated according to the commitment method, are viewed as employing leverage on a substantial basis. Managers of such investment funds have to report, in addition, on the five largest sources of borrowed cash or securities. ESMA considers that, based on the amount of granular information reported by leveraged funds to the NCAs, the option of including in the sample of funds to be further assessed under Step 2 not only AIFs employing leverage on a substantial basis, but also leveraged AIFs which may cause risks to financial stability, despite not being substantially leveraged, is expected to bring more benefits than costs, both to NCAs and to the financial system. This option is in fact based on data which are largely reported by AIFs and would be facilitated by the ESMA guidance which has identified a set of criteria in order to potentially identify those funds. The aim is to ensure that NCAs adopt a consistent approach when assessing whether the conditions for imposing leverage-related measures are met, in line with the ESRB Recommendations. Conversely, the option of including in the sample substantially leveraged AIFs only, could entail the risk of leaving out leveraged funds which would potentially be systemically relevant. This is especially true if the leveraged AIF is interconnected to the financial system in a way that a potential deleveraging may cause risks materialising through various channels, in light of the interconnectedness of the AIF sector. Also, a lack of common practices in this field could lead to a situation where some Member States would adopt different rules, thus creating greater uncertainty in the effective use of the

	extensive information available to NCAs under Directive 2011/61/EU.
Costs to regulators	The Guideline is not expected to add significant costs to ESMA and NCAs. The latter are already required by the relevant legislation to perform an assessment regarding the potential contribution of leveraged AIFs to systemic risks. Following the application of the Guidelines, NCAs could benefit from the harmonisation of the rules regarding the imposition of leverage limits, as well as on the interpretation of the indicators and data gathered pursuant to Directive 2011/65/EU. This guidance would facilitate the effective use of the extensive information available to NCAs under Directive 2011/61/EU and encourage NCAs to perform an assessment of the extent to which the use of leverage in the AIF sector contributes to the build-up of systemic risk.

2. Technical options regarding the use of indicators in order to assess whether the conditions for imposing leverage-related measures are met

Policy Objective	As recommended by the ESRB, to ensure that NCAs adopt a consistent approach when assessing whether the conditions for imposing leverage-related measures are met, ESMA is recommended to provide guidance on a common set of indicators to facilitate the effective use of the extensive information available to NCAs under Directive 2011/61/EU.
Baseline scenario	Under Step 2 (Leverage-related systemic risk), NCAs should evaluate potential risks to financial stability of the AIFs identified under Step 1. When assessing leverage-related systemic risks, the baseline scenario should be understood for this CBA as considering leverage indicators only (e.g.: the leverage level reported by the AIF as in the gross method, commitment method etc) in order to assess the potential contribution of the leveraged AIFs to systemic risk.
Technical proposal	Under Step 2 (Leverage-related systemic risk), NCAs should evaluate potential risks to financial stability of the AIFs identified under Step 1. When assessing leverage-related systemic risk, NCAs should at least include the following risks:

	a. risk of market impact; b. risk of fire sales; c. risk of direct spill over to financial institutions; d. risk of interruption in direct credit intermediation When assessing each risk, NCAs should apply the risk indicators included under Table 2 of the guidelines, in addition to any other risk indicator they deem relevant to assess those risks. Table 2 includes a set of indicators which, read in combination with the leveraged measures, would help NCAs assessing whether the leveraged AIF would potentially entail systemic risk to the financial sector. The list of indicators provided in the Table aims at identifying the various channels of risk propagation through which systemic risk may materialise, in line with the ESRB Recommendations. This would ensure to perform a comprehensive assessment without leaving out any potential risk to financial stability arising from leveraged AIFs, in light of the interconnectedness of the AIF sector to the financial and banking system.
Benefits	The introduction of this Guideline aims at contributing to safeguarding financial stability and limiting the potential sources of systemic risks coming from the use of leverage in the AIF sector. The policy objective is in line with the ESRB Recommendations which recommend ESMA to give guidance on a framework which should capture, as much as possible, the channels through which systemic risk may materialise. This includes the following aspects: the potential contribution by individual funds and the AIF sector as a whole to the risk of fire sales; the direct interconnections of investment funds and the AIF sector as a whole with financial institutions; the direct or indirect involvement in credit intermediation of individual investment funds and the AIF sector as a whole. The proposed framework would include indicators that capture the level, source and different usages of leverage regarded in their interconnected with the financial system as a whole, as well as supporting a harmonised use of the indicators, without leaving out any potential channel through which systemic risk may materialise.

	Conversely, the option of using leverage indicators only, would not allow for NCAs to have a comprehensive picture of how leverage could potentially affect financial stability through the relevant transmission channels. Also, a lack of common practices in this field could lead to a situation where some Member States would adopt different rules, thus creating greater uncertainty in the effective use of the extensive information available to NCAs under Directive 2011/61/EU and the imposition of leverage limits.
Costs to regulators	The Guideline is not expected to add significant costs to ESMA and NCAs. The latter are already required by the relevant legislation to perform an assessment regarding the potential contribution of leveraged AIFs to systemic risks. This option is based on data which are largely reported by AIFs. Nevertheless, the active assessment performed by the NCA would in some cases require the use of external data, where appropriate. For this reason, and in order to minimise this cost for regulators, ESMA's guidelines also provide a list of data bases which could potentially be a source of information in case the NCA deems appropriate to employ the use of data not included in the AIFMD reporting. This cost will therefore be counterbalanced by the guidance provided by ESMA to this respect.

3. Technical options regarding the design, calibration and implementation of macroprudential leverage limits

Policy Objective	As recommended by the ESRB, ESMA guidance should aim at operationalising the leverage limits and calibrate them in order to ensure their effectiveness and their efficiency.
Baseline scenario	When operationalising leverage limits, the baseline scenario should be understood for this CBA as considering imposing the same limit to all funds identified under the risk assessment.

Technical proposal	The calibration of leverage limits should be based on an assessment on whether the application of leverage limits would effectively limit the contribution of the leveraged fund(s) to the build-up of systemic risk. When setting the appropriate level of leverage limits, NCAs should take into account their effectiveness in addressing the risk of market impact, fire sales, spill-overs to financial counterparties, and disruptions of credit intermediation. In order to do so, NCAs should assess the likely impact of these measures on the risks: NCAs should pay particular attention on how leverage can contribute to procyclicality, especially in times of economic cycle-downturn or increase in market volatility. If leverage limits are not efficient or not sufficient, NCAs should consider imposing other restrictions on the management of the AIFs.
Benefits	The policy objective is in line with the ESRB Recommendations which recommend ESMA to give guidance on the design, calibration and implementation of macroprudential leverage limits. A lack of common practices in this field could lead to a situation where some Member States would adopt different rules, thus creating greater uncertainty, uneven level playing field and inaction bias. However, the option of setting the same limits for all funds identified under the risk assessment does not take into account the diversity of fund risk profiles. On some occasion it could lead to unintended effect, for example if a fund or a group of funds deleverage in a procyclical way. Conversely, the option of calibrating the limits based on the fund profile and the efficiency of the limits in reducing the risk, should be more proportionate, limit the build-up of systemic risk and improve financial stability. The possibility to impose other restrictions to the management acknowledge the risks of unintended effect during the phase-in period.

Costs to regulators	The Guideline is not expected to add significant costs to ESMA and NCAs. The latter are already required by the relevant legislation to perform an assessment regarding any likely pro-cyclical effects that could result from the imposition of limits or other restrictions on the use of leverage by the AIFM concerned Moreover, the cost of inaction or inappropriate action is expected to be higher towards financial stability.

Annex III: Guidelines on Article 25 of Directive 2011/61/EU

I. Scope

Who?

1. These guidelines apply to competent authorities.

What?

2. These guidelines apply in relation to Article 25 of the AIFMD.

When?

3. These guidelines apply from two months after the date of publication of the guidelines on ESMA's website in all EU official languages.

II. Legislative references and abbreviations

Legislative references

AIFMD	Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010[6]
AIFMD Level 2 Regulation	Commission Delegated Regulation (EU) No 231/2013 supplementing Directive 2011/61/EU of the European Parliament and of the Council with regard to exemptions, general operating conditions, depositaries, leverage, transparency and supervision.
ESMA Regulation	Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC[7]

[6] OJ L 174, 1.7.2011, p. 1.
[7] OJ L 331, 15.12.2010, p. 84.

Abbreviations

AIF	Alternative Investment Fund
AIFM	Alternative Investment Fund Manager
ASR	Annual Statistical Report
EBA	European Banking Authority
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
ESFS	European System of Financial Supervision
ESMA	European Securities and Markets Authority
NAV	Net Asset Value

III. Purpose

4. These guidelines are based on Article 16(1) of the ESMA Regulation. The objectives of these guidelines are to establish consistent, efficient and effective supervisory practices within the ESFS and to ensure the common, uniform and consistent application of Article 25 of the AIFMD. In particular, they relate to the assessment of leverage-related systemic risk and aim to ensure that competent authorities adopt a consistent approach when assessing whether the condition for imposing leverage-related measures are met.

IV. Compliance and reporting obligations

Status of the guidelines

5. In accordance with Article 16(3) of the ESMA Regulation, competent authorities must make every effort to comply with these guidelines.

6. Competent authorities to which these guidelines apply should comply by incorporating them into their national legal and/or supervisory frameworks as appropriate.

Reporting requirements

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

V. Guidelines on Article 25 of Directive 2011/61/EU

V.1 Guidelines on the assessment of leverage-related systemic risk

10. When assessing the extent to which the use of leverage contributes to the build-up of systemic risk in the financial system in accordance with Article 25 of the AIFMD ("the risk assessment"), competent authorities should take into account a range of quantitative and qualitative information**.**

11. Competent authorities should perform the risk assessment on a quarterly basis.

12. The risk assessment should follow a two-steps approach:

    a) Step 1: Level, source and different usages of leverage (Table 1)

    b) Step 2: Leverage-related systemic risk (Table 2)

13. Under Step 1, competent authorities should identify AIFs that are more likely to pose risks to the financial system. The following AIFs are more likely to pose risks to the financial system:

    a) AIFs employing leverage on a substantial basis based on Article 111(1) of AIFMD Level 2 Regulation;

    b) AIFs employing leverage not on a substantial basis based on Article 111(1) of AIFMD Level 2 Regulation and whose regulatory assets under management are greater than EUR 500mn[8] at the reporting date; and

    c) AIFs employing leverage other than those referred to in points a) and b) whose unusually high use of leverage, as measured through the indicators of Table 1, may pose risks to financial stability.

14. For the purpose of point c) of paragraph 13, an "unusually high use of leverage" is a use of leverage that differs significantly (e.g. a high percentile in the distribution) from that of other AIFs by comparing the AIF's leverage value with:

    a) the median or average value of leverage of AIFs of the same type (for example: hedge funds, private equity, real estate, fund of funds and other AIFs); and

    b) the AIF's historical median or average leverage value.

15. Under Step 2, competent authorities should evaluate potential leverage-related systemic risks to financial stability of the AIFs identified under Step 1 and include in their assessment at least the following risks:

    a) risk of market impact;

    b) risk of fire sales;

[8] This threshold corresponds to a semi-annual or quarterly reporting frequency, as indicated by Article 110(3) letters a) and c) of Commission Regulation 231/2013, for authorised AIFMs based on the managers' characteristics and AIFs managed. Full diagrams on the reporting frequencies available in the ESMA guidelines on reporting obligations.

c) risk of direct spill over to financial institutions; and

d) risk of interruption in direct credit intermediation

16. Competent authorities should base their risk assessment on AIFMD data received according to the reporting frequency set out in Article 110 of AIFMD Level 2 Regulation. In addition to AIFMD data, competent authorities should use the best available data for some of the indicators in Table 2, including national supervisory data and/or third-party data when appropriate. To limit the risk of inconsistencies, competent authorities should refer to the (non-exhaustive) list of data sources included in Annex I.

17. Competent authorities should communicate the results of their risk assessment to ESMA at least on an annual basis and anytime they identify a risk relevant for financial stability. Competent authorities should inform other EU competent authorities where the operations or arrangements made by the AIFM in other EU jurisdictions may pose risks relevant to financial stability and integrity of the financial system.

18. Competent authorities should use their risk assessment, in combination with a qualitative assessment where necessary, to select the AIFs for which it is appropriate to set a leverage limit, according to the Guidelines in section V.2.

Table 1

Leverage-related systemic risk	Indicator	Description	Scope	Data source[9]
Leverage measures Level, source and different usages of leverage	Gross leverage	Leverage of the AIF as calculated under the Gross Method	Single AIF	AIFMD: 294
	Commitment Leverage	Leverage of the AIF as calculated under the Commitment Method	Single AIF	AIFMD: 295
	Adjusted leverage[10]	Gross exposures (excluding IRDs and FEX for hedging purposes) as percentage of NAV	Single AIF	AIFMD: 123,124, 53
	Financial leverage	Value of borrowings of cash or securities as percentage of NAV	Single AIF	AIFMD: 283,286, 53
Assets under management (AuM)	Regulatory AuM	Value in base currency of the AuM for the AIF, using the method set out in Articles 2 and 10 of the AIFMD Level 2 Regulation	Single AIF	AIFMD: 48

[9] Figures refer to the corresponding field in the AIFMD reporting.

[10] This measure excludes IRDs from the computation of leverage, following the approach used in the ASR report on EU AIFs. Indeed, the use of IRDs tends to inflate leverage measures, since IRDs are measured using notional amount (rather than adjusted by duration as done under the commitment approach).

Table 2

Leverage-related systemic risk	Indicator	Description		Scope	Data source[11]
Market impact The size of an AIF or a group of AIFs is sufficient to move the market	Net exposure	NAV x leverage calculated under the commitment method		Single AIF	AIFMD: 53, 295
	Market footprint on the underlying market	Main categories of assets in which the AIF invested compared to the size of the underlying market		Group of AIFs	AIFMD: 123, 124 Size of the underlying market based on external data (see Annex II)
		Value of turnover in each asset class over the reporting months compared to the turnover of the asset class		Group of AIFs	AIFMD: 126 Turnover of the underlying market based on external data (see Annex II)
Risk from fire sales The activities of an AIFM could contribute to a downward spiral in the prices of financial instruments or other assets in a manner that threatens the viability of such financial instruments or other assets	Investor concentration	Percentage of the AIF's equity that is beneficially owned by the five largest owners		Single AIF	AIFMD: 118
	Liquidity profile	Average difference across time buckets between share of AIFs' portfolios capable of being liquidated and investor ability to receive redemption payments.		Single AIF	AIFMD: 53, 57, 178-184, 186-192
	Share of less liquid assets	Illiquid assets include physical assets, unlisted equity, non-investment grade corporate and convertible bonds, and loans, in percentage of AuM		Single AIF	AIFMD: 33, 123,
	Potential liquidity demands resulting from market shock (Single AIF: in % of NAV; group of AIFs: in base currency)	Risk measures	Net Equity Delta	Single AIF or group of AIFs	AIFMD: 53, 139:142
			Net DV01		
			Net CS01		
		Additional information that competent authorities could require AIFMs to report on a periodic basis pursuant	VAR	Single AIF or group of AIFs	AIFMD: 53, 139,145, 302
			Vega exposure		
			Net FX Delta		
			Net Commodity Delta		

[11] Figures refer to the corresponding field in the AIFMD reporting.

Leverage-related systemic risk	Indicator	Description	Scope	Data source[11]
		to Article 24(5) of the AIFMD		
	Other potential liquidity demands	Potential liquidity demands from collateral calls (on AIFs' derivatives and repo) relative to available liquid assets	Single AIF	AIFMD: 185, 284-289, 157-159
		Potential liquidity demands (by source)	Single AIF	AIFMD: 297-301
Risk of direct spill-overs to financial institutions The exposure of an AIF or several AIFs could constitute an important source of market, liquidity or counterparty risk to a financial institution	Linkages to financial institutions via investments	Long value of investments in listed equities and corporate bonds issued by financial institutions.	Group of AIFs	AIFMD: 123 (securities issued by financial institutions)
		Sum of long exposures in structured and securitised products.	Group of AIFs	AIFMD: 53, 57, 123
	Counterparty risk	Mark-to-market net counterparty credit exposure vis a vis the AIF	Single AIF	160-171 Size of the AIF counterparty based on external data (see annex II)
		Potential liquidity demands resulting from market shock[12] (see above)	Single AIF	Single AIF
	Linkages to financial institutions via investor base	Financial institution exposed to a risk of loss[13]	Group of AIFs	AIFMD: 209
Risk of interruption in direct credit intermediation AIFs contributing to the funding of the real economy deleverage	AIFs' investments in credit instruments of non-financial institutions	Sum of long values of corporate bonds, convertible bonds not issued by financial institutions.	Group of AIFs	AIFMD: 123

[12] Liquidity demands stemming from derivatives especially represent a counterparty risk for the counterpart.
[13] Bank exposure to shadow banking entities is nevertheless limited by EBA's guidelines. EBA is of the view that only AIFs with limited leverage could be considered to fall outside the definition of 'shadow banking entities'

Leverage-related systemic risk	Indicator	Description	Scope	Data source[11]
during the downturn thus contributing to the procyclicality of the overall credit supply.		Sum of leveraged and other loans.	Group of AIFs	AIFMD: 123

V.2 Guidelines on leverage limits

19. When deciding to impose leverage limits to an AIFM managing AIFs posing risks to financial stability, competent authorities should consider (as illustrated by the case studies in Annex II):

    a) risks posed by AIFs according to their type (hedge funds, private equity, real estate, fund of funds or any other relevant type) and risk profile, as defined by the risk assessment performed in accordance with paragraph 12;

    b) risks posed by common exposures. Where competent authorities determine that a group of AIFs of the same type and similar risk profiles may collectively pose leverage-related systemic risks, they should apply leverage limits in a similar or identical manner to all AIFs in that group of AIFs.

20. Competent authorities should carefully implement leverage limits, both in terms of timing and phasing in and out:

    a) where competent authorities impose continuous leverage limits to an AIF or a group of AIFs posing a threat to financial stability, the limits should be maintained for as long as the risks posed by the AIF or the group of AIFs do not decrease;

    b) when competent authorities impose temporary leverage limits to limit the build-up of risk, including any procyclical behaviour from an AIF or a group of AIFs, such as when the AIF contributes to excessive credit growth or the formation of excessive asset prices, the limits should be released when the change in market conditions or AIF's behaviour stops being procyclical;

    c) competent authorities should implement leverage limits progressively ("the phased-in period") to avoid procyclicality, especially if imposing limits in a procyclical way could trigger the risk they intend to mitigate; and

    d) competent authorities should take into account the possibility to apply cyclical limits to dampen the build-up and materialisation of risks in the upswing and downswing phases of the financial cycle.

21. When setting the appropriate level of leverage limits, competent authorities should take into account their effectiveness in addressing the risk of market impact, fire sales, spill-overs to financial counterparties, and disruptions of credit intermediation to ensure that the sector

remains able to provide valuable services to the economy. Competent authorities should take the following into account:

a) when risks are directly related to the size of leverage, imposing leverage limits should aim at reducing the size of the risks;

b) when risks are partially related to size, but imposing limits may not reduce risks in the same proportion because AIFs can adjust their strategy to maintain the same level of risk, competent authorities should consider imposing other restrictions on the management of the AIFs (for example, restrictions on the investment policy, redemption policy or risk policy); and

c) when imposing limits may temporarily result in an increase of the risks, for example through a sale by an AIFM of lower risk assets to meet the new requirements, competent authorities should impose other restrictions on the management of the AIF, at least until the end of the phased-in period. For example, the restrictions could include setting limits on the proportion of certain assets based on their contribution to the risk profile of the AIF, their sensitivity to market risk factors, their exposure to counterparty risk or their liquidity under stressed market conditions. In order to address liquidity mismatches, competent authorities may also require the AIFM to implement redemption policies and reduce the frequency of redemptions offered by an AIF or impose notice periods for those redemptions.

22. Competent authorities should evaluate the efficiency of leverage limits in mitigating excessive leverage by taking into consideration the following:

a) proportionality of the leverage limits to the systemic risk posed by the use of leverage by the AIFM;

b) robustness of leverage limits to gaming and arbitrage, especially:

i) where competent authorities determine that an AIF may pose leverage-related systemic risks, the same limits should be considered for different types of AIFs but with a similar risk profiles, as defined by the risk assessment. This is especially to avoid the situation where an AIFM would declare a different type of AIF to avoid leverage limits; and

ii) complexity of the calibration.

V.3 Annexes to the Guidelines

Annex I: Use of external data for the purpose of the risk assessment

1. Competent authorities can compare AIFs in their market with data aggregated at EU level: ESMA publishes its statistical report on EU Alternative Investment Funds on an annual basis[14].
2. For the assessment of leverage related systemic risks, external data may be necessary in order to measure the AIF's exposure in relation to their counterparty or the market in which they operate. This is especially the case when:

    a) competent authorities want to assess the market share of an AIF or a group of AIFs, in which case they would need the information regarding the AIF's exposure and the size of the underlying market;

    b) competent authorities want to measure counterparty risk, in which case they would needinformation on the counterparty.

3. The data sources indicated in Table 3 are without prejudice to any further data sources that ESMA may include in the future to improve exhaustivity, especially in terms of instruments and geographical areas.

Instruments Traded and Individual Exposures	**Underlying market**	**Source**
a) Securities		
Listed equities	listed shares	ECB: Selected euro area statistics and national breakdowns - Securities issues
Corporate bonds not issued by financial institutions	euro-denominated debt securities issued by Non-financial corporation	ECB: Selected euro area statistics and national breakdowns - Securities issues
Corporate bonds issued by financial institutions	euro-denominated debt securities issued by Non-MFI financial institutions	ECB: Selected euro area statistics and national breakdowns - Securities issues
Sovereign bonds	euro-denominated debt securities issued by central government	ECB: Selected euro area statistics and national breakdowns - Securities issues
Structured/securitised products	financial vehicle corporations	ECB - Statistics – Financial corporations - Financial vehicle corporations -
b) Derivatives		

[14] The latest iteration (at the time of issuing these guidelines) of the ESMA Annual Statistical Report, EU Alternative Investment Funds, ESMA, 2020, is available here: https://www.esma.europa.eu/sites/default/files/library/esma50-165-1006_asr-aif_2020.pdf

Equity derivatives	equity derivatives	ESMA: ASR on EU Derivatives markets
CDS	credit derivatives	ESMA: ASR on EU Derivatives markets
Foreign exchange	currency derivatives	ESMA: ASR on EU Derivatives markets
Interest rate derivatives	interest rate derivatives	ESMA: ASR on EU Derivatives markets
Commodity derivatives	commodities derivatives	ESMA: ASR on EU Derivatives markets
d) Collective Investment Undertakings		
Money Market Funds and Cash management CIU	balance sheets of euro area money market fund	ECB - Statistics - Money, credit and banking - Credit institutions and money market funds
ETF	balance sheets of euro area investment funds	ECB - Statistics - Financial corporations - Investment funds balance sheets
Other CIU	balance sheets of euro area investment funds	ECB - Statistics - Financial corporations - Investment funds balance sheets
Top counterparty exposure	**Counterparty data**	**Source**
Banks	bank balance sheet	EBA EU-wide transparency exercise
Insurance	insurance balance sheet	EIOPA insurance statistics

Annex II: Case studies (for illustrative purpose)

	Leverage-related systemic risk	Indicator*	FoF		HF		Real		PE		Other	
Step 1	Leverage measures	Adjusted gross leverage	AIF 1	90th percentile	AIF 2	90th percentile	AIF 3	90th percentile	AIF 4	90th percentile	AIF 5	90th percentile
			8x	1x	15x	11x	4x	2x	3x	1x	4x	2x
		Commitment leverage	AIF 1	90th percentile	AIF 2	90th percentile	AIF 3	90th percentile	AIF 4	90th percentile	AIF 5	90th percentile
			6x	1x	36x	8x	4x	2x	4x	1x	4x	1x
Step 2	Market impact	Net exposure (EUR mn)	AIF 1	90th percentile	AIF2	90th percentile	AIF 3	90th percentile	AIF 4	3rd quartile	AIF 5	3rd quartile
			2,300	353	50,000	2,528	1,500	295	170	81	230	185
	Risk from fire sales	Liquidity profile*	AIF 1	Median	AIF 2	Median	AIF 3	Median	AIF 4	Median	AIF 5	Median
			12%	0%	0%	13%	0%	0%	47%	0%	46%	0%
		Share of less liquid assets	AIF 1	Median	AIF 2	3rd quartile	AIF 3	90th percentile	AIF 4	90th percentile	AIF 5	90th percentile
			4%	3%	27%	25%	368%	400%	221%	113%	350%	119%
	Risk of direct spill overs to financial institutions	Long value of investments in listed equities and corporate bonds issued by financial institutions and sum of long exposures in structured and securitised products.	AIF 1	Median	AIF 2	90th percentile	AIF 3	Median	AIF4	90th percentile	AIF 5	Median
			2%	7%	41%	33%	0%	0%	0%	0%	0%	14%

Coding: green=average or low risk for an AIF of this type, orange=high risk for an AIF of this type (in relative terms), red=high risk for an AIF (in absolute terms).
*Higher values indicate higher risks except for the liquidity profile indicator.

1. AIFs should be assessed according to the absolute value of the indicators and the relative value, compared to AIFs of the same type and other AIFs. The above examples (AIF 1-5) are based on real cases. All AIFs are substantially leveraged (commitment leverage >x3) and should therefore be subject to the risk assessment.
2. A high absolute value of an indicator is indicated in red in the table. A high relative value compared to AIFs of the same type is indicated in orange. Green indicate a low or medium value. For each indicator, the table also indicates a comparison with the relevant descriptive statistic for AIFs of the same category (e.g. a comparison with the median, the 3rd quartile or the 90th percentile).
3. AIF 1 is highly leveraged both in absolute terms and in comparison with AIFs of the same type (the funds of funds). Its main risk is related to its potential market impact, due to its high net exposure (EUR 2.3bn). Risks of fire sales and direct spill overs to financial institutions appear to be more limited and in line with other AIFs in the same category. Therefore, the competent authority should consider imposing leverage limits on this AIF, in case it expects this AIF to have a potential market impact, taking into account the depth of the market it is active in (i.e. its capability to move market prices when selling assets).
4. AIF 2 is very highly leveraged both in absolute terms and in comparison with AIFs of the same type. Its main risk is related to its potential market impact, due to its very high net exposure (EUR 50bn). It also holds a relatively high share of less liquid assets (27% of NAV), has a less liquid profile than AIFs of the same category (0% compared to 13%) and it is exposed to financial institutions (41% of NAV). Therefore, the competent authority should consider imposing leverage limits on this AIF, especially to reduce its potential market impact.
5. AIF 3 is more leveraged than AIFs of the same type and has a relatively high net exposure (EUR 1.5bn). Like most of its peers, the AIF is invested in illiquid assets (real estate). This combination may lead to fire sales in case of a significant redemption episode. However, the liquidity profile of the AIF does not show liquidity mismatches. Therefore, the competent authority should consider imposing leverage limits based on a deeper analysis of the appropriateness of the redemption policy of the AIF.
6. AIF 4 is more leveraged than AIFs of the same type with a relatively high net exposure compared to peers but limited in absolute terms (EUR 170mn). Like most of its peers, the AIF is invested in illiquid assets (private equity). This combination may lead to fire sales in case of a significant redemption episode. However, the liquidity profile of the AIF does not show liquidity mismatches. Therefore, the competent authority should consider imposing leverage limits based on a deeper analysis of the appropriateness of the redemption policy of the AIF.
7. AIF 5 belongs to the “other category”. It is more leveraged than other AIFs of the same type with a relatively high net exposure compared to peers but limited in absolute terms (EUR 230mn). The AIF is heavily invested in less liquid assets (private equity) but does not show liquidity mismatches. Given the type of this AIF (“other”), the competent authority should consider imposing leverage limits based on a deeper analysis of the

business model of this AIF, and especially the appropriateness of its redemption policy.