Final Report

Technical advice, draft implementing technical standards and guidelines under the MMF Regulation

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European Securities and Markets Authority

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1 Executive Summary

Reasons for publication

Article 15(7) of Regulation (EU) 2017/1131 on money market funds ("MMF Regulation") empowers the Commission to adopt delegated acts specifying liquidity and credit quality requirements applicable to assets received as part of a reverse repurchase agreement. In a letter dated 20 January 2017 (see Annex II to this paper), ESMA was asked to provide technical advice to the European Commission.

Article 22 of the MMF Regulation empowers the Commission to adopt a delegated act specifying: i) the criteria for the validation of the credit quality assessment methodologies referred to in Article 17 of the MMF Regulation; ii) the meaning of the "material change" that could have an impact on the existing assessment of the instrument and that would trigger a new credit quality assessment for a money market instrument; iii) the criteria for quantification of the credit risk and the relative risk of default of an issuer and of the instrument in which the MMF invests; as well as iv) the criteria to establish qualitative indicators on the issuer of the instrument. In its aforementioned letter of 20 January 2017, the Commission asked ESMA to provide technical advice on these topics.

Article 37 of the MMF Regulation (see Annex II to this paper for the full text of the relevant Articles) provides that ESMA shall develop draft implementing technical standards to establish a reporting template containing all the information managers of MMFs are required to send to the competent authority of the MMF.

Article 28 of the MMF Regulation provides that ESMA shall develop guidelines with a view to establishing common reference parameters of the stress test scenarios to be included in the stress tests managers of MMFs are required to conduct

This final report contains the technical advice, implementing technical standards and guidelines on stress tests that ESMA has developed.

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Section 2 summarises the feedback received to the consultation that ESMA carried out and explains how ESMA has taken it into account.

Annex I contains the legislative mandate to develop implementing technical standards and the letter from the European Commission dated 20 January 2017 asking ESMA to provide technical advice.

Annex II sets out the cost-benefit analysis related to the technical advice, draft implementing technical standards and guidelines.

Annex III contains the full text of the technical advice, draft implementing technical standards and guidelines.

Next Steps

The technical advice and implementing technical standards (ITS) have been submitted to the European Commission – in the case of the technical standards, for endorsement.

With respect to the ITS on the establishment of a reporting template and the timing of implementation of the corresponding database, ESMA confirms that managers would need to send their first quarterly reports mentioned in Article 37 to NCAs in October/November 2019 (and not in July 2018). In addition, there will be no requirement to retroactively provide historical data for any period prior to this starting date of the reporting. In terms of next steps, ESMA will now start working on the Guidelines and information technology (IT) guidance that will complement the information included in the ITS so that managers of MMFs have all the necessary information to fill in the reporting template they will send to the competent authority of their MMF, as specified in Article 37 of the MMF Regulation.

With respect to the Guidelines on stress tests, ESMA determined that in addition to those stress tests managers of MMFs will conduct – taking into account the requirements included in the sections 5.1 to 5.7 (principle-based approach) – managers of MMFs should also conduct common reference stress test scenarios. The results of these will need to be included in the abovementioned reporting template according to Article 37(4) of the MMF Regulation. The corresponding calibrations of these common reference stress test scenarios will be specified when ESMA first updates the Guidelines in a sufficiently timely manner that managers of MMFs receive the appropriate information on these fields in order to fill in the reporting template mentioned in Article 37 of the MMFR. The timing of publication of the update of the Guidelines on stress tests will be the same as the abovementioned Guidelines and IT guidance that will complement the information included in the ITS.

2 Feedback on the consultation

1. ESMA received 18 responses to the consultation paper (CP) on ESMA's draft technical advice, ITS and guidelines on stress tests under the MMF Regulation. Responses were received from asset managers (and their associations), investor representatives, a public authority and an association of professionals investors.

I. Introductory comments

2. In their introductory comments respondents commented on the following items:

- The introductory comments cover several areas of the CP. Several respondents, while welcoming the exercise from a theoretical point of view, ask ESMA to be careful with references to the US regulation because the US and EU markets are different. In the same way, two respondents do not consider references to the banking regulation to be appropriate. In particular, one of these suggests improving liquidity requirements and does not support the references to Basel haircuts. In the opinion of some respondents, regarding the structure of the template (to be established in the ITS), ESMA should remove some elements in order to be consistent with the Level 1 mandate;

- Proportionality should be observed and only relevant information should be included. While one respondent appreciates the reference to the AIFMD reporting template, several other respondents believe that, since MMFs are mainly UCITS funds, it would be better to reference to that template. Also supporting this view was the belief that the reporting requested by the AIFMD goes beyond what is relevant for MMFs. However, lack of harmonisation at EU level in the UCITS reporting template could increase complexity. One other respondent simply states that they support a limited set reporting obligations;

- On stress testing, several respondents indicate that the Guidelines should be principles-based/illustrative and not mandatory. Other respondents are of the view that stress tests results should not be aggregated and a text should accompany the results. One respondent supports the idea of reverse stress testing on the basis that it is the most applicable method to ensure that the funds can meet their obligations;

- On credit assessment, many respondents outlined that firms have learnt how not to rely on credit rating agency (CRA) ratings, so it should be up to MMF managers to choose whether to use them. In addition, several respondents also stated that asset managers are not CRAs so they should not be required to conduct the same type of analysis (in particular, that the reference to a “scale of credit rating” is not appropriate). A number of respondents opined that it would be better to have a principles-based approach. On reverse repo, the belief was outlined that there should be flexibility in the determination of haircut policy and that the manager should make its own assessment and decide the haircut.

Share destruction/cancellation

- Seven respondents commented in relation to paragraph 186 of the Consultation Paper in order to express their disagreement on the provision that “the destruction of shares is not allowed under the MMF Regulation”. The respondents argue that MMFs in the EU have been operating for a number of years in a negative interest rate environment and therefore the use of share destruction is important in this context of negative interest rates;

- One respondent states that it does not agree with paragraph 186 (citing Article 1(1) and 2(11) of the Regulation) on the basis that ESMA referred to one part of Article 1(1) only (the part referring to preserving the value of the investment) while there is also a statement that a MMF should offer returns in line with money market rates;

- Moreover, it was noted that Article 2(11) only refers to the accrual of income on a daily basis and the distribution of such income to investors or the use of such income to purchase shares in the fund. Advocates of this view did not agree with ESMA’s characterisation of an MMF’s authority to mandatorily redeem shares in circumstances set forth in the MMF’s constitutional documents, and its obligation to redeem shares if requested to do so by investors, as constituting the “destruction of shares”. This is because it implies a unilateral action on the part of an MMF when actually those redemptions are made on a basis on an authority granted by shareholders and founded on constitutional documents;

- Other respondents suggest that this mechanism should be accepted by Member States and their supervisors;

- Finally, one respondent suggests that share destruction is a dynamic process that currently operates in accordance with UCITS Directive provisions and is a way of handling inflows and outflows of investment in open-ended funds.

ESMA Response: ESMA received significant feedback from stakeholders on the issue of share destruction (share cancellation). ESMA has sought the views of the legal services of the Commission on this issue, given that the practice raises issues of interpretation of the MMF Regulation. In light of the output of this legal assessment, ESMA will take appropriate follow-up actions, having regard to the nature of this issue and current market practices. The precise tool that ESMA will use will depend on the outcome of the Commission’s legal assessment. However, these follow-up actions are likely to include, in particular, input to the Commission on the extent to which additional fields related to share cancellation would potentially need to be included in the reporting template under Article 37 of the MMF Regulation.

II. Technical advice under Article 15 of the MMF Regulation

Q1: Do you agree that the abovementioned references to EU/US standards are relevant in the context of the issuance by ESMA of technical advice on quantitative and qualitative liquidity and credit quality requirements applicable to assets received as part of a reverse repurchase agreement in the context of the MMF Regulation? Do you identify other pieces of national/EU/International law that would be relevant in view of the work on this part of the advice?

3. With respect to the references to the EU/US standards, all respondents recognise the intellectual merit of considering them but urge ESMA to consider the context in which they are developed. In particular, the differences between the MMF markets in the US and EU, and indeed the differences in issues covered by US regulation were remarked on, as such the view that the regulatory framework should be adapted accordingly was advocated.

4. Regarding the other pieces of relevant legislation, two respondents see relevance in the Liquidity Capital Ratio (LCR) and Net Stable Funding Ratio (NSFR) with respect to liquidity requirements while noting that ESMA should be cautious when dealing with the EBA's Guidelines and should not merely read across these provisions, given the differences between the MMF and banking industries.

5. Two other respondents suggest taking due account of the CESR Guidelines for MMFs published in 2010 (CESR/10-049), in particular regarding liquidity of assets. On the other hand, several respondents state that EMIR and MIFID are too focused on asset transactions so, while they can be useful for the discussion, they should not be replicated.

6. One respondent suggests considering the ESRB opinion on securities financing transactions, while another suggests looking at IOSCO's final report and at the good practices to reduce reliance on CRAs. The same respondent points out how liquidity and credit quality requirements already reflect EU and US standards, but that the objectives of those standards differ and this has to be taken into consideration. The same respondent strongly disagrees with the reference to the Basel haircuts.

7. According to two respondents, it could be useful to consider ESMA's Guidelines on ETFs and other UCITS issues (ESMA/2012/832).

Q2: Which of the options described above regarding credit quality and liquidity requirements would you favour?

8. All respondents prefer option a) (as referred to in the MMF CP) in relation to credit quality requirements for credit quality requirements. For liquidity requirements, the majority favours option a) while two favour option b).

On credit quality requirements

9. Two respondents support option a) on the basis that it is the one that best responds to the mandate, is compatible with market practices and can evolve over time. It allows cleared reverse repos to be taken into account and is capable of acknowledging the quality of a central counterparty (CCP). Another respondent believes that option a) is the most robust and efficient. The respondent believes this efficiency arises from what it considers to be the primary risk in a reverse repo, counterparty risk, and that collateral is only a mitigant to this risk. The respondent also believes the approach to be coherent with the global architecture of financial regulation because it views regulated financial institutions to present a lower risk profile than certain entities that are not under the supervision of financial regulators. In the respondent's view the approach under this option reinforces the consistency of MMFR because the criteria that make an asset eligible as an investment by an MMF are satisfied by its eligibility as a receivable in a reverse repo. Finally, the respondent considers that this option foresees that re-repos transacted with entities other than regulated financial ones should be subject to overcollateralization through a proportionated haircut policy;

10. One respondent suggests that for credit quality, option a) is the preferred one but some contents of option b) could be included. In particular, combining option a) with a non-exhaustive list of assets drawn from option b) could be a way of adding more certainty about permitted collateral sets. The respondent believes that a level of certainty is provided when using assets – referred to as High Quality Liquid Assets (HQLA) in the banking regulatory framework – in order to determine the credit quality of assets in the context of the Article 15(6) of the MMF Regulation. However these assets should in the respondent's view be considered as a non-exhaustive list. The respondent does not support option c) because MMFR only allows collateral with maturity greater than 397 days to be accepted if it as a Government security. The respondent does not support Option d) – they believe it would be too limiting;

11. Counterviews were also provided. One respondent outlined a preference for option a) as well has d) as the chosen options because option b) does not include book debt and option c) is considered too long. One respondent opts for option a) regarding credit quality because in its view a counterparty's creditworthiness should be the fundamental determination of credit quality in a repo trade. Another respondent favours option a) for credit requirements because of a belief it provides more consistency given asset managers could use the same approach on credit quality assessment used in MMFR for all their assets. Another respondent stresses how option a) focuses on the capacity of the MMF to enforce its rights in case of default of the counterparty and that it reinforces internal consistency because the criteria that make an asset eligible as an investment by an MMF are satisfied by its eligibility as a receivable in a reverse repo;

12. Two respondents are in favour of option a) but propose clarification that the favourable assessment referred to in Article 22 may be an assessment made with respect to a set of collateral. They do not believe option b) is a sufficient standalone option or can function as a reasonable alternative for option a). It was outlined by these respondents that both the Capital Requirements Regulation (CRR) and European Banking Authoring (EBA) report referred to in the Article 15 of the MMF Regulation and

delegated regulation 2015/61 published pursuant to it, are concerned with banking, which is a distinct market to MMFs. Moreover, the respondents believe that the CRR only considers EURO-denominated assets while MMFs accept collateral in other currencies. For these reasons these respondents opined that option b) is only suitable as a supplement and not as a replacement of option a);

13. On the subject of credit quality requirements another respondent favoured option a) stating that there should not be further requirements specified in the delegated act under Article 22 of the MMFR. In this respondent's view, new requirements should be limited because the existing collateral requirements for reverse repo are already very restrictive. This idea is also shared by another respondent that believes that no new rules are required because MMFs generally only take back very high quality collateral in reverse repos and the Regulation itself already sets out strict rules. Furthermore, they emphasise that operationalising the required controls and reporting resulting from any new rules could be complex and challenging for an MMF manager.

On liquidity requirements

14. Concerning liquidity, one stakeholder favours option a) but suggests changes in the proposed haircut. In their view the merits of option a) are, among others, that it achieves that the tri-party repo, critically important for the industry, continues to be available in the future and the practicalities of their use is maintained. The stakeholder believes this is not guaranteed by option b), in particular with its provisions at page 99;

15. On the other hand, one respondent favours option b) arguing that option a) is too complex and haircuts too large while option c) may be the most straightforward but it is not distinct enough in the respondent's view, and the requirements for option d) are also too long. Again, option a) is highlighted for its usefulness in terms of liquidity requirements because the creditworthiness of the counterparty, especially when the counterparty is a regulated entity, is the key determinant of credit quality of a repo. The respondent does not favour option b) because the current requirements for UCITS funds are in its view sufficient to ensure the liquidity of the collateral received. Finally, the respondent suggests considering references to SEC rule 2a7, that all approved counterparties need to be vetted through a credit assessment process, and they propose that companies and pension funds be added as eligible counterparties;

16. Two respondents, in line with the above, prefer option a) considering both the counterparty limit and counterparty risk as the primary risks for reverse repo, whilst collateral is considered a lower priority risk. Two respondents argue that they favour option a) but that haircuts should be reviewed. In particular, one argues that these should be determined by the asset manager while the other another does not agree with the standardised haircut because there is a risk of making MMFs uniform. In their opinion, a bespoke haircut policy is preferable. In particular, where exposure to an unregulated counterparty exceeds 10% of the assets of the MMF, the MMF manager should be obliged to impose a bigger haircut than would be the case for exposures less

than 10%. Such haircut should be at the discretion of the manager. Moreover, they propose a drafting amendment in Article 4;

17. Finally, concerning qualitative and quantitative liquidity requirements, the above respondent preferred option a), with the additional remark that all regulated and supervised counterparties such as insurance companies, pension funds and managers of UCITS/AIF should qualify in the same manner as regulated credit institutions, and they propose amendments to Articles 3 and 4. Again on the prescriptiveness of the requirements, one respondent states that eligibility criteria for collateral are already very strict but they support the view that reverse repo transactions with non-regulated entities should be subject to overcollateralization using an appropriate haircut policy. In addition to this, the respondent opined that these credit and liquidity quality requirements are in the context of assets received as part of a repo, and they represent indirect risk only materialising in case of counterparty's default.

18. One last respondent, favours option a) because in its view it is most appropriate for collateral use requirements, opining that regulation should not impose on asset managers overly strict rules and definitions that would, in the respondent's view, negatively affect behaviours and create unintended knock-on effects due to a narrow interpretations of requirements.

Q3: With respect to option a), do you think the haircut policy should be determined as suggested, or should there be more flexibility given to the manager on this determination? Do you think that the decision of equivalence vis a vis third countries mentioned in this option should relate to the one mentioned in Article 114 (107 in the case of credit institutions) of CRR?

19. Five respondents agree with the haircut policy. The benefits of having a standardised haircut policy includes more legal certainty, prevents influence by other counterparties, and doing so makes it easier to impose haircuts, guarantees that lower levels of collateralisation cannot be negotiated. This would stop practises that in the end result in lower industry standards. Furthermore, eligible assets are easier to classify with the Basel table and MMFs would be aligned with market practises. Finally, three respondents among these five do not see any benefit coming from flexible haircuts;

20. On the other hand, six respondents disagree with ESMA regarding standardised haircuts. The main arguments for this view are two-fold. Firstly, that flexibility should be allowed so as to allow managers to do their internal assessment and analysis of market conditions to identify the adequate level of haircuts for that specific circumstance. Market conditions, credit quality of the counterparty and of the collateral are the main drivers for the determination of the haircut. Moreover, standardised haircuts could lead in having the level of risk not appropriately reflected while a flexible approach reduces the risk of losses. Furthermore, the issue is addressed from a competition perspective. In these respondents' view having standardised haircuts can potentially reduce the competitiveness of MMFs compared to other repo users;

21. To further stress its counterview to the option outlined, one respondent says that the references to the banking sector should all be deleted, whilst another respondent states that the proposed standardised haircuts do not sufficiently consider that only high quality Government securities that have received a favourable assessment will be accepted under 15(6). Another respondent opines that the proposed haircuts include ineligible asset classes not allowed under the MMFR;

22. Two respondents mention the ESRB, one to highlight that the ESRB opinion on securities financing transactions considers the FSB approach to haircuts reasonable while the other one refers to ESMA that the ESRB says that government securities should not be subject to standardised haircuts, and haircuts should be frequently monitored, assessed and adjusted. According to another respondent leaving flexibility to managers is consistent with ESMA's Guidelines on ETFs and other UCITS issues;

23. Articles 3 and 4 are also commented on. For one respondent these are not sufficiently clear, for another respondent these should be redrafted, and a third respondent believes they should be reworded. Redraft in particular would cover the collateral in tri-party repo and inclusion of high quality financial entities such as pension funds and insurance companies because these play a role in the repo and reverse repo agreements;

24. Other comments include the view that detailed features of cross-references should not be included in the Technical Advice (TA), that EMIR requirements on risk mitigation for uncleared OTC derivative contracts are relevant, whilst ESMA's Guidelines on ETFs and other UCITS issues are not relevant. Feedback suggesting an alternative approach was received, that of reverse repo contracts with unregulated counterparties being made subject to a haircut based on liquidity considerations, spelt out in quantitative terms through prudential regulation. Finally, one respondent highlights that allowing flexibility would also mean that those that want to stay with the standardised haircuts can adopt them;

25. Regarding equivalence, only two submissions were received. One respondent welcomes the call for a regular review of the equivalence regime in order to assess whether regulatory changes in the EU have not introduced discrepancies that would justify reconsidering and subsequently withdrawing equivalence whilst another one believes that the decision regarding CRR equivalence decision should apply.

Q4: With respect to option b) on liquidity requirements, do you think that requiring assets convertible to cash in one business day or less is appropriate? Do you think this requirement should be more detailed and refer to trade date or settlement date, for example? With respect to that same option b), how do you think that the criteria mentioned in this proposed technical advice (annex IV in section 7 of this CP) could be defined in more detail, and how could quantitative indicators be introduced? Do you think all the criteria mentioned in Article 2(3) of this option b) are relevant? Under this option, when the liquidity assessment of the manager is that the assets would no longer be liquid assets, the manager shall take immediately any

appropriate action including the replacement of the collateral with another asset that would be qualified as liquid assets. Do you think that the replacement of the collateral could be carried out overnight?

26. All respondents object to option b). The main reason for this objection is that in the respondents' view this option provides more questions than answers and is not practicable from an operational point of view either because it implies that asset managers assess criteria such as volumes on a daily basis;

27. In the views of respondents, the option is insufficiently clear in terms of providing legal certainty, it raises significant practical and operational issues and is costly. Another respondent outlines its opposition to option b) stating that specifying the number of days in which the asset must be convertible to cash is not appropriate and the respondent's view that there is no single recognised approach for measuring and managing liquidity of certain assets;

28. Furthermore, other respondents believe that is difficult to bring some more clarity to the criteria, opining that it raises some issues about the date of implementation, increases complexity of trading highly standardised products such as government backed reverse repo, and that specifying the number of days is not appropriate and does not reflect the functioning of the market or each fund.

On cash conversion

29. Regarding the requirement for assets to be convertible to cash in one business day or less, there is a general opposition for this proposal. For one respondent, ESMA's provision that only assets will only be liquid if they are "convertible to cash in one business day or less without the conversion to cash having an impact on the market value of the investment other than a marginal one" does not sufficiently take into account the functioning of the market. According to 7 respondents the market works in terms of "settlement date" which is generally T+2, with the settlement date of assets being a consequence of the trade date, and therefore it is not realistic to expect assets to be convertible to cash within one business day;

30. Actual market rules and practises are based on "settlement date" and not on the "dealing or trade date", including for HQLAs. According to one respondent, the requirement for assets to be convertible to cash in one business day goes beyond Level 1 legislation and they do not believe there is a necessity for this requirement, another respondent does not see the need for specifying the days within which the asset must be convertible into cash. In their view, the approach is not appropriate and does not reflect the functioning of the market behaviour of the MMF;

31. According to three respondents, liquidation of collateral happens when the counterparty defaults and given that the counterparty for MMFs are typically highly creditworthy, the default itself might trigger disruptive effects in the markets that make a 'fire-sale' not optimal for the investors' interest. One respondent notes that the ability

to comply with the requirements that assets are convertible to cash in one business day will depend on the time of the day “that the clock starts ticking”. If it is 9 am this could be achieved, while if it were 4 pm it would be difficult to meet the requirements; they think that a better way to approach this would be to specify a period of 24 hours rather than a business day.

32. Finally, two respondents ask for further clarifications. One asks whether the meaning of convertible cash should be clarified, whether it refers to the trade date or settlement date, whilst another requests confirmation that this requirement would exclude the settlement cycle. According to one participant, would be better to change with something that that better reflects the interest of the MMF.

On collateral replacement

33. On this point, there was not a wide support for option b). According to one participant, typically managers recall the reverse repo then operate the replacement, and the replacement of the collateral may be operated within a tri-party reverse repo. However, this option is not available in the money market of this particular respondent. For another respondent, if a tripartite arrangement is used the collateral will be confirmed at the close of each business day – and therefore modifying it overnight is unlikely. While if a bilateral reverse repo is chosen then the replacement will take 2/3 days;

34. The notion given of replacement of collateral may, in some respondents’ view, be detrimental to best execution. They opine that the current market practise is to recall the reverse repo operation where there are fears about the liquidity of the collateral; replacement collateral might be operated in a tri-party reverse repo but only few money market funds have implemented it. Another respondent states that the immediate replacement of collateral does not reflect current practices and the requirement to replace collateral is not appropriate for all types of repos;

35. One respondent says that they prefer an “immediate” replacement action instead of an overnight replacement because substitution and switching of collateral cannot take place after the timing of the last run of the tri-party agent until the start of the next business day. The counterparty will have committed collateral under other trades and these cannot be changed until the market opens;

36. Moreover, another respondent rejects the intraday collateral conversion requirement as it views that it would be difficult to apply it in the current market; collateral replacement takes place during working hours only for tri-party repos while short term MMF mainly use overnight re-repos, therefore by the time the collateral could be replaced it would be irrelevant as the re-repo contract would have already settled. Finally, one respondent believes that the replacement of collateral can take place within one business day and that this wording is more appropriate than “overnight”;

On liquidity assessment

37. Finally, proposals on liquidity assessment are not widely endorsed. One respondent believes that the current requirements for UCITS funds are sufficient to ensure the liquidity of collateral received (under the ESMA Guidelines requirements) and also an intraday conversion requirement would be extremely difficult in the context of current market terms. The respondent emphasises that the majority of reverse repo trades conducted by an MMF are overnight, triparty agented trades where the collateral is specified basket of eligible securities;

38. Any assessment of the liquidity of the asset as referred to in option b) Article 2(3) would be out of office hours and no action could be taken until the next business day when the maturity leg of the trade will already have been sent for processing. For another respondent, requirements set out in option b) of the draft advice would not work as drafted, because it is not feasible to assess the liquidity of the assets in the way described, nor it would be necessary if the liquidity/quality requirements are established in advance through an appropriate regulation and then applied via specification in the contractual schedule;

39. Regarding the quality of the counterparties, MMFs typically rely on counterparties that have received the highest internal credit quality assessment. It is questionable whether the detailed indicators proposed under 2(3) of the drafted TA for the assessment of the liquidity of assets are available for the implementation of a standardised process. In addition, they request clarification on the wording "the manager of a MMF shall use a number of indicators, including but not limited to" because they believe further clarity is required on whether or not the list is exhaustive. In any case, the respondent recommends a principles-based approach;

40. Clarification is also requested by another respondent because according to them the wording of Article 2(1) is requires further clarity. In its view, the list of indicators included in Article 2(3) of option b) would be unworkable for most repo investors. Another respondent suggest rewording for Article 2(3) of the draft TA (pp. 99) because the daily and weekly liquidity buckets under the MMFR set different provisions on how the liquidity of an asset should be considered;

41. Finally, one last respondent does not believe that mandatory list of criteria proposed by ESMA is appropriate because in a tri-party repo arrangement, the collateral received changes intra-day and the manager does not have control over the collateral provided at an issue level and can only control the overall criteria;

42. The respondent opines that a number of criteria do not provide any useful assistance in the assessment of liquidity of government securities and the assessment of issue-specific criteria is burdensome, time consuming and costly. They prefer option a) but in the event option b) is adopted the list of criteria of the liquidity assessment should be not mandatory but illustrative.

Q5: What would be in your view the consequences in terms of costs of the chosen option, and of the other options mentioned above? Do you agree with reasoning

mention in the CBA (annex III) in relation to the possible costs and benefits of the options as regards the abovementioned credit quality and liquidity requirements? Which other costs or benefits would you consider in this context?

While responding to this question stakeholders could use the following table for example:

a. **IT costs**		b. **Training costs**		c. **Staff costs**	
IT One-off	IT Ongoing	TR One-off	TR Ongoing	ST One-off	ST Ongoing

43. A large share of respondents agree with the ESMA's CBA of option a), indeed they do not believe that this option will significantly increase costs;

44. One respondent says that option a) with some limited application of option b) would work best concerning credit quality, while for liquidity requirements option a) should be adopted. A number of respondents did not view option b) favourably. Eight respondents believe that option b) would add operational complexities and therefore increase costs. It was stated that the benefits of adopting option b) would be smaller than the costs, and that in particular option b) seemed to offer less positive impact on investor protection compared to option a), which focuses on the central question of quality of the counterparty and incentivising the choice of regulated entities;

45. One respondent stresses how new additional staff and resources will be needed, increasing training costs and IT costs, another respondent agrees with the CBA overall rationale but not the detailed cost breakdown. Finally, one respondent believes that the issue is too complex to assess via a CBA.

ESMA Response (to questions related to the technical advice under Article 15 of the MMF Regulation): Taking into account the feedback received from stakeholders, ESMA decided to maintain its views with respect to the chosen option in relation to credit quality criteria (option a) and also choose option a) in the case of liquidity criteria.

However, following the feedback received from stakeholders on the haircut related requirements ESMA decided to amend the corresponding requirements of the TA by referring to Article 224 of regulation 575/2013. The rationale behind this decision is provided below.

ESMA proposes to delete references to the Basel Committee on Banking Supervision (BCBS) as these cannot be included in an EU piece of legislation. Consequently, ESMA proposes to refer to high quality assets subject to minimum haircut as defined under Article 224 of regulation 575/2013 only.

Under the MMF Regulation, there are no requirements relating to the quality of the counterparty to a reverse repurchase agreement. MMF managers have discretion to elect which counterparties they want to contract with, which is not the case regarding OTC derivatives. With regards to OTC derivatives, only institutions subject to prudential regulation and supervision and belonging to the categories approved by the competent authority of the MMF are eligible (Article 13(c) of MMF regulation).

Imposing minimum haircuts will not limit the capacity of an MMF to enter into a reverse repurchase agreement, exclude an MMF from the repo market or downgrade its competitiveness. Furthermore, additional liquidity requirements on collateral are needed to maintain financial stability. MMFs will be able to undertake reverse repos with counterparties of their choice (to the extent they do so with a high quality counterparty), and no additional constraints, including haircuts, shall apply on collateral. However, depending on the quality of the elected counterparties and their probability of default, collateral must be high quality and highly liquid, as such collateral may need to be liquidated in a very limited period. Therefore, in these cases ESMA proposes to require a mandatory minimum haircut, aiming at absorbing the liquidity cost of liquidating assets. This is all the more important as reverse repurchase agreements callable respectively within one business day and 5 business days are considered eligible to satisfy the daily and weekly liquidity ratios. Consequently, reverse repurchase agreements, and in the case of default of the counterparty to the transaction, the collateral received by a MMF, are part of the liquidity buffer of an MMF, i.e. such assets that are deemed sufficiently liquid to meet any redemption as an example within a day or a week. As per Article 24(c) of the MMF regulation, other assets considered sufficiently liquid to satisfy the daily liquidity ratio requirement are daily maturing assets or cash able to be withdrawn upon a one day notice. With regards to the weekly liquidity ratio, eligible assets are weekly maturing assets, cash able to be withdrawn upon 5 days' notice and with respect to LVNAV and CNAV, highly liquid sovereign debt having a residual maturity of up to 190 days, that can be redeemed and settled within one day.

Collateral to a reverse repurchase transactions may be composed of eligible assets as detailed under Article 10 of the MMF Regulation, i.e. assets maturing up to 397 days, in addition to government debt having no maximum legal or residual maturity. Hence, following default of the counterparty to the reverse repo, the liquidity ratio may be composed of assets having a maturity, either legal or residual, superior to 190 days for both the daily and weekly liquidity ratio. It may even be composed of very long-term government debts.

On a general basis and considering the investment objective of an MMF and its very liquid nature, government debts not eligible under Article 10 should be subject to a haircut to ensure that the MMF would be able to meet their investment objective and comply with their very liquid nature. As mentioned by market participants under their responses, even US treasuries are subject to haircut by counterparties to a repo under market practices.

Such a haircut would be defined at the discretion of the managers of the MMF, as such haircuts depend on the quality of the counterparty and eligible collateral, except for the minimum haircut which will be mandatory. Minimum haircuts proposed are equivalent to those imposed on credit institutions under CRR, save where such entities have implemented their own internal models. It is therefore considered that the practice under CRR achieves a good balance between diversity and competition of the MMF market (which will in any case be satisfied thanks to the possibility of MMFs to transact with regulated counterparties with no constraints) as well as financial stability.

Given the feedback received from stakeholders, ESMA also decided to extend the list of entities mentioned in Article 3 of this technical advice to insurance undertakings subject to the Solvency II Directive. This is the list of entities, where they are counterparties to the reverse repurchase agreement that would not be captured by the abovementioned requirements on haircuts.

III. Technical advice under Article 22 of the MMF Regulation

Q6: Do you agree that the abovementioned references to EU and US standards are relevant in the context of the issuance by ESMA of technical advice on credit quality assessment under the requirements of the MMF Regulation? Do you identify other pieces of national/EU/International law that would be relevant in view of the work on ESMA technical advice on credit quality assessment under the requirements of the MMF Regulation?

46. Concerning the reference to the US framework, one respondent says that references to the US market would only be acceptable if the legal framework and market structure was the same. However, in the respondent's view given this is not the case any references to US standards should be avoided;

47. Two other respondents comment on the US reference, outlining that the US standards are not applicable directly because they do not consider SEC requirements explicit enough to be helpful, whilst another respondent comments that the US regulation suggests eliminating references to rating agencies and focusing on internal credit risk assessment;

48. Regarding the references to credit rating agencies, five respondents believe that reference should be proportionate and principle-based. In particular, one further comments that investors, corporate treasures and large investors have the habit and principle to diversify their cash between several funds and so they do not want to have uniform ways of credit quality assessment. Investors consider CRA as very helpful support to create buy list but the fund or mandate manager credit analysis and selection might differ significantly depending on the investment. All these profiles need also specific analysis, means and techniques;

49. Moreover, these respondents oppose standardised methods and scales because in their view a diversity of managers' internal processes is a better way to

reduce systemic risk and 'herding' behaviour. The respondents outline that it is a credit quality assessment that best shapes a buy/no buy list, and producing a ranking may be an intermediary step but is not a prerequisite to this process;

50. Some respondents outlined that a credit assessment's purpose is to contribute to investment decisions therefore the use should be solely internal. The fact that the use is internal, according to one respondent, makes the reference to CRA methodology disproportionate. On the topic of credit rating agencies, three respondents state that there is a difference in the requirements that should be considered, the CRA regulation requires methodology to be "rigorous, systematic and continuous" while in the MMFR "prudent" replaces "rigorous". In their view this may be seen as a different purpose;

51. Concerning other pieces of law that could be relevant several comments are made. Two respondents say that the most relevant regulation is to be found in the Technical Advice published by ESMA on reducing the sole and mechanistic reliance on external credit ratings (2015/1471). Another one believes that the most appropriate set of standards in this regard are the ESMA Guidelines on MMF;

52. For one respondent it would be helpful to include references to IOSCO report on reducing reliance on CRAs in asset management. The IOSCO reference is also mentioned by another respondent that says that both this reference and the 2013/14/EU Directive are missing where the MMFR requires explicitly that these standards should be considered;

53. Moreover, one of these two respondents also adds that at the beginning of the TA there should be a reference for the Articles that relate to the delegated act referred to in Article 22(a), relating to Article 19(3), Article 22(b), Article 20(2)(a), Article 22(c) Article 20(2)(b), and Article 22(d) and Article 19(4)(d) as applicable;

54. Moreover, two respondents comment on the overriding principle expressed in the CRD, one saying supporting that the flexibility that it allows and the other one saying that it could be useful to mirror the same overriding principle expressed in CRD;

55. Finally, one respondent comments that paragraph 125 and 126 are relevant from the perspective of EU countries that have top ratings but tend to lack relevance for those countries that have low ratings or simply have less issuers rated;

56. The respondent agrees with the general principle that a material change in external rating can trigger a review of the internal credit quality assessment, but they believe that any procedure should also be feasible for those countries that, due to sovereign ceilings, have ratings that are generally lower.

Q7: Do you agree with the proposed option on each of the requirements mentioned in Article 22 of the MMF Regulation? If not, could you specify which existing regulatory framework would you suggest as a basis for the work on the technical advice related to Article 22 of the MMF Regulation?

On credit rating agencies and credit rating

57. Seven respondents disagree with the idea of a scale. Firstly, their view is that the MMFR does not refer to such a scale and secondly the diversities of internal process should prevail. Managers could only have a system that gives as output approved/not approved. Therefore, the reference to a "scale of credit rating" should be deleted and the differences between the CRAs and the credit analysis by a fund manager should be acknowledged, their work is different and managers undertake their own analysis using CRA's rating only as a piece of information.

58. Some respondents view that the proposals go beyond the mandate set by legislation. Moreover, four respondents stress that CRAs are subject to more stringent requirements as the MMFR features the term "prudent" and not "rigorous" when it comes to the methodology adopted. To this purpose, one respondent notes that on Article 22(a), mirroring the requirements applied to CRAs would go beyond the needs for MMF credit quality assessment requirements.

59. Another respondent states that as Article 22(a) of the MMFR requires only supplementing the MMFR by specifying the criteria for the validation of the credit assessment methodology the new Delegated Act should only require some minimum standards on what the "validation of the credit quality assessment methodology" means. Therefore, according to another respondent, what is important is to understand the key elements of CRA's methodologies and monitor accordingly also because they believe that is not relevant to rely on rating agency assessment as they do not sufficiently respond to an immediate change in conditions, and are typically based on historic assessment.

60. In the view of one respondent investors react to changes in ratings and therefore these have to be monitored because by the time a downgrade materialises it might already be too late to reduce the exposure. Finally, on the topic of ratings, one respondent indicates that some further indicators, in addition to the ones in the Technical Advice, could be used to mitigate reliance on credit ratings. These are credit spreads, pricing of comparable fixed income instruments and related securities, CDS pricing information, financial indices and financial modelling. These respondents also mention alternate indicators as sovereign analysis, banking sector risk and governance risk.

On the quantitative and qualitative criteria for quantification of the credit risk and on the aspects of an Issuer or Instrument to be assessed

61. Two respondents request that the criteria listed in the Technical Advice under Article 22 (on page 102) should be illustrative with no obligation to implement all of them while a third one believes that the wording should be softened and Article 22 should be read as "such as" instead of prescribing a closed list. Another respondent believes the proposals should be revised in the following way: Article 1(1) should be

deleted, Article 1(2),(3) and (4) should be more principles based and Articles 2,3 and 4 should be deleted. The proposed quantitative criteria under Article 1 seem appropriate;

62. Some respondents disagree with the proposed scope of Article 2 because they view that those requirements should be in line with those of the MMFR. According to the MMFR Article 22(c), the delegated act shall specify only one criteria for establishing qualitative indicators on the issuer of the instrument, as referred to point, as referred to point (b) of Article 20(2) of the MMFR. Qualitative indicators of the credit risk of an instrument are not requested. Therefore, any other proposed qualitative indicator, besides Article 2 of the drafted act that has qualitative indicators on the issuer of the instrument must be deleted;

63. Another respondent comments on Article 4 and the use of overriding principles. They state that for the quantification of the credit risk of the issuer and of the relative risk of default of the issuer and instrument, they would prefer the focus to be on trying to predict the relative risk of default of the issuer/instrument, relative to peers within the investing universe. Regarding qualitative indicators, the focus is on a qualitative assessment of the issuer and on its operating environment. On the short-term nature of money market instruments, they try to assess what incentives all parties would have in a crisis and how each party would be likely to behave. Finally, on asset class of the instrument, their preference would be to replace this with "the legal nature of the instrument" as they want to focus on the contractual rights embedded in the instrument and for recovery expectations that are critical and will be significant in determining inter-creditor relationship;

64. One respondent thinks that references to SEC Regulation in Article 22(b) and (c) should be deleted. On Article 22(c), two respondents comment that since the mandate refers to "issuer of the instruments" rather than to "instruments", in order to be coherent with L1 mandate, all references to instruments in Articles 2 and 3 in the draft Technical Advice should be deleted. Further, as regards the specific criteria they suggest detailed rewording to Articles 1, 2 and 3 on page 102 and 103, including the reference to credit rating outlook as an additional element for the evaluation of the credit risk in Article 1. They further suggest deleting the "degree of volume and liquidity" in Article 2(b) given that the quality of an issuer does not depend on its liquidity in their view. Finally deleting the reference to credit rating or rating outlook in Article 2(d) and deleting the reference to instruments in Article 3 are also suggested.

Q8: In your view, what would be the consequences (including operational ones) of the level of detail and prescription suggested above in the proposed technical advice on credit quality assessment under the MMF Regulation (which would be broadly similar as in the delegated Regulation on the assessment of compliance of credit rating methodologies (447/2012), and in the technical advice on reducing sole and mechanistic reliance on external credit ratings (2015/1471))?

65. Nine respondents support ESMA's proposal to avoid being too prescriptive because in their view this would reduce diversity, it would lead to uniformity in

behaviour, herding and ultimately increased systemic risk. According to one respondent, the level of detail and prescription suggested would have a significant standardising effect across the industry.

66. Diversity is praised as a positive feature by five respondents who consider this a key pillar of the market. They believe diversity needs to be preserved because it improves the proposition to investors. However, one respondent also believes that it is important to maintain a certain degree of comparability across the market and it should be in ESMA's interest to create a certain level of prescriptiveness.

67. One respondent suggests a series of drafting proposals and asks for some clarifications. This respondent is of the view that there should not be any reference to credit ratings nor on a scale of ratings. Those are in the respondent's view too direct links to CRA activities that seem inconsistent with the objective to reduce reliance on CRAs.

68. The drafting proposals suggested by the above respondent are as such: the belief that that the usage of "shall" in Articles 1, 2 and 3 is too prescriptive, even if the list of criteria is introduced by "such as" or "to the extent possible". Further, the replacement of "shall" by "could" in the draft is also requested. In Article 5(2) they do not believe that it is helpful to list all the criteria, which might produce a material change.

69. Furthermore, Article 5(2) in its last sentence should not use the word "including" and read "such as those which are referred to in Articles 1 to 3", the list being deleted. In the view of this respondent, Article 5(4) and Article 2(d) implicitly create an obligation for an asset manager to subscribe to a rating service of one or several CRAs. In their view, this is not consistent with the opinions against the overreliance on CRAs and it is not necessary to meet the requirement of MMFR level 1 text.

70. Finally, above respondents ask for a clarification that "selection" does not mean "subscription" and a redrafting of the two Articles including this wording. In addition, other respondents comment on CRAs. One respondent states that MMFs are not CRAs and therefore their methodologies would be excessive and not appropriate, the main consequence of the level of prescription and detail in their opinion would be an increase in running costs without improving credit quality.

71. Another respondent strongly disagrees with the proposed approach to implement the same requirements as those that apply for CRAs and with regard to the proposed TA on reducing the sole and mechanistic reliance on external credit ratings. This respondent welcomes ESMA's approach. The influence of external credit ratings could be reduced as a result of a broader assessment of more qualitative criteria. However, maintaining the process of monitoring of ratings would not change the current situation.

72. Ratings are obtained in return of a fee, any solution should be set in a manner that does not add further expense or costs for ratings data. Also on costs, according to

one respondent a prescriptive approach would require managers to develop new credit assessment processes, leading to costs and operational risks implications.

73. On the assessment of credit quality, four comments have been received on the composition of such analysis. Quantitative metrics are part of the criteria used in the evaluation process, they are nevertheless information from the past and projection and anticipation can differ from one analyst to another one. Qualitative measures are subjective ones. And, this is the reason why according to several market participants, credit analysis plays a key role in the management of investment funds, anticipating the evolution of the credit quality of an issuer is a major component in the creation of performance and is an important element of the reputation of an asset manager. Moreover, another respondent believes that the relevance of the indicators to evaluate credit quality should be left to the manager's judgement.

74. They do not object to the idea of both market-based indicators and assessment of the issuer to assess credit quality but they believe that this should not be interpreted as saying that a credit quality assessment should by definition incorporate both market based indicators and assessment of the issuer or instrument. There is no reason to reject from regulatory point of view, a credit quality assessment methodology that totally relies on fundamental assessment of instruments/issuer and does not incorporate market-based indicators. Finally, according to one participant the TA should also refer to the principle of proportionality under which small asset managers will benefit from more flexible rules regarding the credit quality assessment.

Q9: What would be in your view the consequences in terms of costs of the chosen options described above in relation to the requirements included in the technical advice under Article 22 of the MMF Regulation? Do you agree with the assessment of costs and benefits mentioned in the CBA (annex III) on the technical advice under Article 22 of the MMF Regulation? If not, please explain why and provide any available quantitative data that the proposal would imply.

While responding to this question stakeholders might use the following table for example:

a. IT costs		**b. Training costs**		**c. Staff costs**	
IT One-off	IT Ongoing	TR One-off	TR Ongoing	ST One-off	ST Ongoing

75. The chosen option does not seem to have an impact on costs because it is closer to market practises. Option 1 is perceived by respondents to be less costly than

option 2, and this is also related to Article 23(4) and the identity of those that have to perform the internal assessment of credit quality and the regular review of methods used. In a number of respondents' view, complete independence of already existing models and procedures would involve much higher costs.

76. However according to two respondents, costs will vary depending on the credit assessment process that the managers currently perform, whilst one believes that firms have developed enough expertise that will not increase costs significantly. Choosing a standardised approach would in their view be more costly and might lead to herding behaviour that would eventually lead to higher systemic risk, while they opine that adopting a principle-based approach allows asset managers to bolster their existing procedures to comply with the requirements rather than having to start from the beginning.

77. Four respondents believe that any attempt to mirror wording from the CRA regulation would have significant effects on costs, while one states that the requirement for internal credit assessment has the potential to be a substantial barrier to entry for new providers looking to enter the MMF market. On rating agencies, according to one respondent there might be a disproportionate cost for the subscription to a rating service, and in their view this should not be mandatory. One cost that could arise is the one related to the additional staff that might be needed, however IT and training costs are not expected to be significant.

78. Regarding the assessment of costs and benefits mentioned in the CBA, three respondents agree with the position outlined in pages 91-92, in particular two believe that a standardised approach is costly and not necessary but leads to a lack of diversity and herding behaviour that ultimately increases systemic risk, while another one thinks that requirements should be closer to current market practises

ESMA response (to comments on the questions related to the technical advice under Article 22 of the MMF Regulation):

ESMA has updated its proposals under validation and credit quality criteria in a number of areas in order to take account of the valuable feedback received from respondents. This has involved restructuring some of the proposal's elements in order to increase clarity, in addition to addressing some areas, which respondents highlighted as being disproportionate.

<u>Regarding the criteria to ensure a credit quality assessment is subject to validation:</u>

With regards to the criteria the manager of an MMF must refer to in order to validate a credit quality assessment methodology ESMA has restructured Article 1 in order to improve the clarity of the proposal, removing some elements such as those under "limited quantitative evidence". Regarding the criteria for ensuring the credit quality assessment is prudent, systematic and continuous, these have been maintained, however greater proportionality has been introduced in within these elements. For example, under the criteria for ensuring a credit quality assessment is prudent (Article 2), ESMA has removed reference to "all" factors deemed relevant in point (b) as this was highlighted as setting an unreasonably high standard for managers of MMFs that was more appropriate for CRAs. Likewise under the criteria for ensuring a methodology is systematic (Article 3), ESMA has removed reference to a CRA defining "its own scale of credit rating" while maintaining the requirement for managers to ex-ante define the situations where the assessment is deemed to be favourable. Regarding the criteria to ensure a methodology is continuous (Article 4), ESMA has removed the requirement that the credit quality assessment methodologies be capable of enabling the manager of an MMF to compare results "across different categories of issuers and financial instruments". This was seen as disproportionate and more relevant to CRAs. As a result, ESMA has replaced this wording to clarify that the purpose should instead be to allow comparison between historic credit quality assessments of the methodology.

Regarding the criteria for the quantification of the credit risk of the issuer and the relative risk of default of the issuer and the instrument, establishing qualitative indicators on the issuer of the instrument, and finally, the material change that would trigger a new credit quality assessment:

ESMA has adapted the wording of these provisions in order to increase their relevance to the nature of the credit quality assessments conducted by MMFs. The main changes here have involved the addition or revision of the criteria under Article 1 to increase their relevance to the investable instruments of an MMF. A similar change is suggested under Article 2, with the addition of "if relevant" to the criteria of credit ratings or rating outlooks assigned to the issuer or instrument, in order to clarify that reference to credit ratings is not a required criteria under this Article. The main changes have focused on Article 4, which has been strengthened in order to ensure that while allowing for the output of a credit quality assessment to be overridden, this can only occur in certain circumstances.

IV. ITS Article 37 of the MMF Regulation

Q10: Do you think other types of information should be considered as "characteristics" of the MMF?

79. Seven respondents are of the view that the information requested in the reporting template should not diverge from the MMFR mandate. In their view, 'overloading' the template would not be favourable and the information requested should be only that considered appropriate and useful in the specific cases of MMFs.

80. In addition to this, while these respondents understand, and to some extent welcome, ESMA's approach to have its work based on the AIFMD reporting, they advocate the view that the reporting template should be modelled on the specific characteristics of MMFs. This is also because the majority of MMFs are not AIFs but UCITS. One of those respondents suggests that more data collected by the ECB should be used as in its view the ECB already collects a sizable amount of data.

81. Moreover, these respondents agree that it would be preferable to design the database by reference to the same ISO standard as that used for MiFIR and EMIR

reporting. One respondent questions what ESMA is going to do with these data on a quarterly basis. Asset managers usually post monthly factsheets on their website and send them to clients. The factsheet can be completed with an exhaustive inventory drawn up by the fund's provider because investors and corporate treasurers have developed a template with useful data, and the development of a new one would be costly.

82. Regarding more specific areas of the template, three respondents do not consider that the requirements regarding share classes are needed, and they argue that any reporting requirement with regard to share classes should be eliminated (A.3.8 to A.3.16). Regarding the identification codes to be used, five respondents believe that the LEI code is sufficient and should be the only code. In particular, one respondent specifies that the LEI is at the level of the sub-fund, which appears to be the appropriate level of granularity when talking of a fund.

83. Four of these respondents also believe that the field requesting information on "unencumbered cash" on page 119 should be deleted. On the other hand, one respondent agrees that information on the identification of a MMF and its manager together with the details of the share classes of the MMF are types of information that should be considered. These respondents also require clarity for the term time horizon.

84. They agree that information on mergers and liquidations is useful to obtain but they believe that as this information will be provided on a one-off basis it would be more appropriate for questions A.3.17-A.3.23. They suggest moving the item on "master/feeder information" from the first characteristic to the last characteristic and adding an initial question which asks whether the MMF complies with the requirements of Article 16(5).

85. One respondent believes that for repo and reverse repo and financial derivatives the information requested should be reduced to include only those fields that are not yet foreseen/derivable from other EU regulatory reporting. As a general remark, they indicate that electronic data interchange should be utilised for the reporting template. Moreover, they mention a list of items they want to remove, amend or for which they request clarification.

86. The respondent advocates deleting the follow lines: A.1.2,4, A.1.13-15, A.3.3, A.3.5, A.3.8, A.4.12, A.4.16, A.4.9, A.4.10 and 7.8. Amongst these deletions are the ECB and national codes, as the respondent believes that the LEI code would be sufficient. In the case of "unencumbered cash", the view is that it will not be valuable information.

87. Items for which they require an amendment, A.1.22, A.3.12-16, A.3.17-23, A.4.16-18, Item 5 on stress testing as this section seems very detailed, A.6.25 and element relating to liabilities on page 137 and example provided to present stress tests on page 147.

88. Finally, items that require further explanations are those that occupy the following lines, A.1.16, A.3.14-15, A.4.1-2, A.4.13-14, A.4.15, A.5.1, A.6.1, 6,2,32, 18,20, 22, 27,57, 28-30, 63, 67-68, 31, 36, 10, 11, 48-49, A.7.1,2,5, 9 and B.1.8.

89. Another respondent has comments regarding Article 27 and 37. The respondent advocates a specific level 2 provision for the application of Article 37 in order to take into account possible difficulties and issues. The respondent states that there is no such level 2 provision concerning Article 27 and that this should be reconsidered. Further, they believe there will be major operational and legal issues related to distributors. Therefore, to avoid the risk of unintended consequences the respondent believes that the obligations provided in Articles 27 and 37 of the level 1 text should be clarified and aligned at the level 2 regulation. The wording of the Article 37 of the level 2 text could in the respondent's view be duplicated for the application of Article 27 level 1.

90. Two respondents propose changes in pages 115, 116, 120 and 121. They also comment on sections such as A.3.14 that refer to "shadow NAV", here they question whether this corresponds to an intention to change the NAV calculation as outlined in Article 30 of the MMF at a later stage.

91. For one respondent under A.1.16 it will be more straightforward to have a 'yes' or 'no' answer, footnote 77 should apply to A.1.13 as well as A.1.14. Whilst the respondent opposes the idea of reporting data about share classes on yield, portfolio or liquidity, the respondent can view that the number of share classes and their ISIN codes could be useful data. Consequently, the belief is that A.3.6 and A.3.7 are the only fields that should be populated. Among items A.3.17 to 3.23 of section c) they think that only the last one is relevant in regular reporting.

92. Another respondent proposes changes in a number of areas. Changes are proposed with regard to the information on the asset held in the portfolio in relation to credit quality (A.6.25, 26 and 56), information on stress test, liquidity profile of the portfolio (A.4.7 to A.4.10), information on yield, information on type and characteristics (A.1.13-16 and A.3.17-22), and information on the asset held in the portfolio regarding information different from credit qualities (A.4.1-2, A.6.1, A.6.18, A.6.20, A.6.22, A.6.31, A.6.27, A.6.57). They also suggest deleting some parts of the following lines: A.6.28, A.6.29-30, A.6.63, A.6.67-68, A.7.7-8.

93. One respondent comments on time buckets (A.4.9), saying that these should be in line with the time buckets under the AIFMD reporting. They view that reporting of the instruments should be limited to the identifier ISIN and there should be alignment between the frequency of the internal stress test and report.

94. Finally, two respondents outline a series of changes they would like to propose regarding different areas of the reporting template. One of the respondents has remarks on items A.1.13-15, A.3.3, A.3.5-6, 8 and 9, A.3.14, A.3.17-23 of section "c" and item A.4.9 on the portfolio liquidity profile. Moreover, they also propose changes on pages

120,121,137,138, 140, 141 and 142. From a general perspective, they suggest avoiding multiple information in a single field, as it would create difficulties. The second one questions which added value provided by lines A.2.17-23, stating item A.4.1-2 is not relevant for UCITS, unencumbered cash is not relevant for MMFs, they do not believe that the breakdown proposed in A.6.1 is relevant, A.6.31. They also believe items B.1.7 and B.1.24 to be confusing.

Q11: Do you agree with the proposed way of reporting the yield of the MMF? If not, could you indicate what would be the more appropriate way to report yield in your views? Do you think the 7-days gross yield should be reported for each week of the reporting period? If not, what should be the appropriate frequency of reporting on this item? Do you think that the calendar year performance and yield could be calculated at (sub) fund level and at share class level? Which difficulties do you identify while doing so? At which frequency should it be reported?

95. Six respondents argue that there is no need to report on share classes and therefore references on reporting on share classes should be deleted. The reason why this reference should be deleted is because share classes do not develop specific investment strategies, they only cover different types of distribution channels or different base currencies so there is not any additional specific risk.

96. Only one respondent states that reporting may be at share class level only if the information on yield could be different between share classes and where information on yield is on net basis it could be appropriate to calculating the figure at share class level at each reporting frequency.

97. Regarding the yield measurements, five respondents think that seven yield measurements proposed (A.4.11-A.4.17) are superfluous and three of those believe that one single set of figures for different time periods would be sufficient. According to one respondent, there should be no duplication of requirements. Their opinion is that the current standard is the succession of returns YTD, 1 month, 3 months and 1 year is the most relevant one.

98. Another respondent thinks that the best indicator is not a portfolio but the performance of the fund on a given time horizon while another respondent questions the value of reporting this kind of information. In addition to these comments on the template two respondents believe that what is included at page 120 of the consultation paper could be deleted (A.4.11-1.4.15). Of those items on page 121, they would limit them to only those they believe are most useful such as YTD, 1M, 3M and 1Y. Another respondent suggests deleting from the reporting template questions A.2.12-A.4.14.

99. Three respondents highlight that the EU calculation will have a 360 days basis, whilst the US one will have 365-day basis, and they do not see the rationale behind this proposed addition to the mandated sections of the MMFR reporting template. Regarding the reporting timing, one respondent says that large investors and regulators do monitor performance on a very frequent, although not to say daily basis.

100. The above respondents suggest reporting those figures only as a matter of record with the granularity being the sub fund level where investment decisions that determined the performance are made and implemented, and they acknowledge that MMF reporting is due quarterly and annually for smaller funds. They therefore query the rationale for the final question and believe it should be removed. Again on smaller funds, one respondent states that reporting is due quarterly and annually for smaller funds so they would say this is the appropriate frequency of reporting. The quarterly frequency of reporting is also supported by another one because MMF reporting is due quarterly.

101. Regarding which are the most useful data to be reported, one respondent says that, in relation to paragraph 187, requiring reporting on the 7-day gross yield figure would be most appropriate. The view is that reporting cumulative returns months after the event is less valuable. Regarding paragraph 189, their view is that the information is available but may be less useful to regulators due to the time having passed since the data were contemporaneous.

102. Regarding VNAV, one respondent states that publishing the yield is not useful data for VNAV because institutional and professional investors are more focused on the very recent past performance of MMFs, for comparison with MM indices and fund sector indices. The 7-day yield, according to another participant, is specific to stable NAV funds while for VNAV is more important the level of performance.

103. Another respondent suggests taking into consideration only what is most valuable with respect to data, and that the 7-day gross yield appears to not be relevant for VNAV. It is stated that the YTM is well suited for a buy and hold investment and not for an MMF. Finally, their view is that "cumulative returns" is not clear enough regarding whether gross or net returns should be given. For VNAV MMF they suggest taking cumulative return YTD, 1 month, 3 months and 1 years (all from the end of reporting period). Finally, for one respondent both 7-day gross yield and the cumulative returns would be useful. The 7 day figure could be reported at the point in time, by setting out 12 separate figures, one for each full week during the reporting period. Two respondents state that the goal should be to avoid debatable assumptions, be informative and allow regulators and investors to monitor and compare performances on a daily basis.

Q12: Which type of measure would you suggest using to report the quantified outcome of the credit assessment procedure?

104. All the respondents object to the addition of an obligation to report quantified outcome of the credit assessment procedure in the reporting template. Nine respondents stress that Article 37(2)(d)(i) is not precise about what information should be collected in relation to the credit quality assessment procedure. It is required to report the "outcome" and not the "quantified outcome".

105. One respondent, in line with these other comments, states “each manager formalises its output and its own credit assessment process and criteria”. In addition, two other respondents recognise the importance of the manager, one saying that it is up to the asset manager to organise its procedure using qualitative, quantitative or mixed assessment criteria. Another respondent states that the internal process should prevail because different processes should be developed by asset managers with possible different quantified outcomes.

106. A number of respondents stated that putting in place a specific scale of outcomes would require asset managers to change their own process into a new one that would be prescribed. This would in their view result in undesirable effects: it would not be proportionate, costly and it may reduce diversity.

107. Moreover, four respondents believe that the outcome of the process should only be “favourable or not favourable”. One respondent specifies that this favourable or not favourable assessment should be the response to the question A.6.25 in the reporting template. They also suggest deleting question A.6.26 from the reporting template in order to limit any subjectivity.

Q13: With respect to reverse repurchase agreements, do you agree that the information requested is appropriate? With respect to repurchase agreements, do you think the value of cash received should be reported as a breakdown per investment purposes, i.e. liquidity management or investment in assets referred to in Art 15(6)? (given the information on the amount of cash received as part of repurchase agreements that is also requested). What should be the appropriate frequency of reporting on this information? Do you think the value of unencumbered cash should be reported as a breakdown per country where the bank account is located and currency? (given the information on deposits that is also requested)

108. Six respondents believe that the frequency of reporting of this information requested should follow what is set by the MMFR. Therefore, they do not foresee a different timeframe for the cash received as part of a repo. Two of these also add that the reporting is due quarterly and annually for smaller funds.

109. Several respondents do not agree with the decision to ask for unencumbered assets to be reported because they do not see this information useful, according to two respondents this information could be useful for banks or for hedge funds. In particular, another respondent notes that question A.4.10, which seeks information on the value of unencumbered cash, comes from the AIFMD reporting template and does not consider this issue to be of relevance to MMFs and therefore suggests deleting it. Finally, for one respondent the need to report unencumbered assets will depend on the classification of the “other liquid assets” that an MMF may not hold according to Article 50(2) of Directive 2009/65.

110. In addition, a group of respondents does not see necessity to report the breakdown of liquidity by country and currency. Moreover, three respondents do not

see the benefit of a breakdown of the value of cash received in a repurchase agreement, because for example for one respondent there is no added value for ESMA as this snapshot would be for one day in each time period.

111. For one respondent the information on the amount of cash received as part of a repo is already requested in questions A.6.67-68 of the draft reporting template therefore duplication should be avoided. Five respondents comment on the list of fields regarding the information to be reported for reverse repurchase agreement, according to these respondents there are the section should be simplified and the number of items requested reduced. The information requested should not in their view be a duplicate of that already requested under other EU regulatory reporting, such as SFTR reporting.

112. Two respondents comment on items A.6.51-A.6.68 indicating that they understand the need to monitor MMFs with regard to overcollateralization, ensuring funds engage with high quality counterparties and respect the limit, quality and diversification requirements of the regulation. One of those, plus another respondent suggests collecting all the report fields in the periodic reporting. One respondent believes that is appropriate to collect the name and LEI of counterparty, totals of the reporting would be meaningless and the percentage of a portfolio that comprises of repo is already reported - as is the maturity.

113. With respect to items A.6.51-54, another respondent queries why the outcome of the internal credit assessment procedure is requested. They assume that if the outcome is unfavourable assets should not be received as collateral. Moreover, they do not agree with the reporting requirements in ESMA's ITS asking to report quantified outcomes of the internal credit quality assessment procedure, items A.6.57 would not be relevant in the context of reverse repo collateral and, concerning items A.6.51-54 the amount in EUR is in their view sufficient.

114. One respondent believes that fields referring to the eligibility criteria seem burdensome and do not strictly relate to the delegated mandate that requires information on the assets based on their type and characteristics and not on eligibility. Finally, two respondents wonder whether the information on the market value of the exposure or collateral is necessary.

Q14: Do you think the information on the investor 'lock-up' period in days (report asset weighted notice period if multiple classes or shares or units) is relevant in the case of MMFs (this information is included in the AIFMD reporting template)? Do you agree with the proposed way to report stress tests?

On lock-up period requirements

115. There is not wide support for having the lock-up period included in the reporting template. Seven respondents believe that this information is irrelevant for MMFs, in particular because of their highly liquid nature and open-ended structure. Two of these, in particular, stress that this reference should be deleted because the lock-up period is

not in the MMF prospectus, and because adding restriction on liquidity would be inconsistent with the objective of a MMF and would disqualify a fund being labelled as an MMF.

116. Five respondents see lock-up periods for MMFs as something highly hypothetical and they suggest that ESMA should stick to what is foreseen by the MMF requirements. One respondent suggests deleting the fields A.7.5 to A.7.8 because of its view that they have little relevance to MMFs.

On stress test reporting

117. According to five respondents, reporting requirements for stress tests should stick to what is foreseen in the level 1 of the text. In particular, Article 28 of the MMF Regulation requires that stress tests have to be regularly conducted by the MMF or by the management company and in case of vulnerability they require an extensive report to be produced, submitted to the Board and to the NCA, that will then send it to ESMA.

118. These respondents believe that quarterly report foreseen by Article 28 should not be reproduced within the reporting template because the reporting template's function is to evidence any vulnerability that has been highlighted though the stress test. Therefore, this view outlines that the quarterly report should not compete with the risk management process. On this point, another respondent says that the most important content of the reporting template is to point out whether the stress test conducted in the reporting period have evidenced any vulnerability.

119. Regarding specific sections of the reporting template, according to two respondents' questions from A.5.1 to A.5.4 should remain descriptive/narrative. Another respondent suggests that the reporting process of the stress test should be simplified. The questions that in the current draft reporting template dealing with stress testing are A.5.1-A.5.4 and they would suggest additional questions to be included.

120. To ease the process, they suggest adding a question where the answer can only be 'yes' or 'no' and which asks for information on whether the stress test reveals any vulnerability of the MMF, question A.5.1 should be changed and the answer should only be 'yes' or 'no' and question A.5.2 should be deleted. With regard to the requirement in Article 28(5) ESMA should clarify the intention that the submission of the completed reporting is separate to the submission of the completed reporting template on a quarterly or annual basis. Finally, one respondent argues that they do not support the detailed provisions set forth in the Appendix to the Annex of the consultation and that the outcome of the stress test should be only a text field. If no stress test is made within the reporting period, the stress test information under reporting could simply include a description of such occurrence.

Q15: Do you identify other type of information that should be included in the requested information in the reported template? What would be in your view the consequences in terms of costs of the proposed options for the reporting template? Do you agree

with the assessment of costs and benefits above for the proposal mentioned in the CBA (Annex III) on the reporting template? If not, please explain why and provide any available quantitative data on the one-off and ongoing costs (if any) that the proposal would imply. Do you have specific views on the potential use of the ISO 20022 standard?

While responding to this question stakeholders might use the following table for example:

a. IT costs		**b. Training costs**		**c. Staff costs**	
IT One-off	IT Ongoing	TR One-off	TR Ongoing	ST One-off	ST Ongoing

121. Respondents have not identified any type of additional information that should be in their view requested. Four respondents point out that the majority of MMFs are UCITS and therefore they view the AIF template as not of significant use. In their view the features of MMFs are not comparable to AIFs. According to five respondents, the information collected under the AIFMD could be a useful starting point, and is important to ensure consistency and incentivise harmonisation between the two approaches, but then it has to be kept in mind that the scope of the MMFR is narrower.

122. Four respondents suggest reviewing the indicators at page 121, in particular they suggest retaining only the appropriate ones (YTD, 1M, 3M, 1Y) and to delete the other ones. According to two respondents, the reporting template proposed by ESMA seems overly onerous and is too granular. One respondent anticipates that there will be a significant financial burden in order to ensure compliance with the obligation set by the Regulation. Another respondent comments that the implementation of reporting is going to generate additional costs mainly linked to IT developments and additional human resources.

123. The respondent's view is that the requirements placed on managers and other service providers of MMFs will be much more significant when compared with the requirements placed on these parties in relation to reporting under AIFMD. Two respondents state that the duplication of reporting of information between different regulatory frameworks should be avoided and encourage assessment of the overlap between the reporting requirements under MMFR, SFTR and AIFMD. Four respondents suggest that in the application of these provisions some proportionality of means should be kept and that a breakdown per country and only significant holdings should appear.

124. Three respondents comment on the fields that describe the assets held by the MMF. In their view the CUSIP (A.6.5 and A.6.35) is not freely available data and should be not required, the ISIN should be the reference and an alternative could be provided if necessary with a definition of the source. The respondents believe that the LEI requirement negates the necessity for the identification of the parent company (A.6.10, A.6.11 and A.6.48). Clarifications will be necessary for the determination of maturity date of non-bullet issues (A.6.15 and A.6.50). ESMA should in their view build on the current work on the identification of products through their UPI (A.6.32). One of those respondents also suggests checking for consistency with other reporting requirements such as AIFMD and UCITS. Another respondent shares the idea that the LEI requirement negates the necessity for the identification of the parent company (A.6.10, A.6.11 and A.6.48).

125. On the liability side, the same three respondents remark that asset managers, do not always know a lot of the information about underlying investors, particularly where investments are held via intermediaries. They do however state that in the majority of cases fund managers have sufficient knowledge of their top 5 investors, however the level of individual monitoring may be limited. Moreover, one respondent outlined that for smaller investors, fund managers will tend to apply a statistical approach resulting in the distinction between professional and non-professional clients not always being possible. Further the respondent suggests modifying A.7.2 to reflect that non-professional clients do not always amount to ‘retail’ under MiFID.

126. There are also further modifications suggested, three respondents suggest adding private banking as a specific category to the investors group (at page 138 section A.7.3). One respondent says that A.4.15 should be calculated at sub-fund level and they do not think that a monthly volatility measure is of any interest for MMFs. In their view the daily monitoring of MMF valuations conducted by regulators, and their experience provides a more efficient control on the MMFs volatility in terms of financial stability. Therefore, they ask for the deletion of the fields A.4.16-18. They are of the view that the field A.7.9 needs to be clarified because it could be read as meaning that if at the day of reporting redemption gates or suspensions are activated this should be reported. The same respondent highlights that provisions of Article 37(2)(b) are covered by section (4) in the Annex. They think that the proper level for the calculation of WAL and WAM is the sub-fund as identified by a LEI.

127. Concerning liquidity, the same respondent believes that the only relevant data that are required by level 1 are the daily and weekly liquidity ratios covered by A.4.7 and A.4.8 as well as the 75-day limit for LVNAV. In their view, any other measurement has no reason to be reported and they suggest deleting the fields A.4.9 and A.4.10. Regulators should have a global view with the WAL and WAM measures and a proper focus to the immediate and short-term liquidity.

128. With regards to the yield, the same respondent believes that the proposed RTS adds requirements that are not appropriate or necessary. Their perspective is that NCAs will not rely on quarterly reporting to monitor performance and are already

equipped to follow MMFs performances on a daily basis. The view is that MMF reporting on this point will not be an efficient tool for supervision of financial stability, but the indication will most likely be used for benchmarking purposes and ex post identification of MMFs behaving abnormally.

129. Another respondent suggests adding in this part of the template (A.6.31) the type of other assets also "other liquid assets" that a MMF may hold in accordance with Article 50(2) of Directive 2009/65/EC and stresses only information that is appropriate for MMFs should be collected. Two respondents suggest providing the information at the level of the fund whenever possible and that for performance figures the most representative share class should be used.

ESMA Response (to comments on the questions related to the ITS on the reporting template under the MMF Regulation): Given the feedback received from stakeholders, the ITS on the reporting template have been greatly simplified. The list of fields which have been removed from the reporting template as compared to the version of the reporting template included in the consultation paper is the following (numbering of the fields according to the version of the reporting template included in the consultation paper):

The below fields have been following ESMA consideration of critical data for MMF reporting templates (the information might be relevant for AIFs but not for MMFs, because of the specific nature of these funds):

- A.1.13 If any, indicate the name of the benchmark of the MMF
- A.1.14 Identifier of this benchmark of the MMF
- A.1.15 If any, indicate the target return of the MMF
- A.1.16 Investment horizon of the MMF
- A.3.17 Name of that fund
- A.3.18 LEI of that fund
- A.3.20 Name of that fund
- A.3.21 LEI of that fund
- A.4.10 Value of unencumbered cash (breakdown per country where the bank account is located and currency)
- The types of eligible securitisation and asset backed commercial paper (please see Art 11 of the MMF Regulation)
- A.6.6 Country of the Money market instrument, eligible securitisations and asset backed commercial paper
- A.6.10 LEI of the Parent company of the Issuer
- A.6.11 Name of the Parent company of the Issuer
- A.6.12 In the case of an eligible securitisation, LEI of the sponsor
- A.6.13 In the case of an eligible securitisation, name of the sponsor
- A.6.14 In the case of an eligible securitisation, the type of underlying
- A.6.28 Whether the Money market instrument, eligible securitisations or asset backed commercial paper is one of the assets mentioned in Article 18(2) of the MMF Regulation

- A.6.29 Whether the Money market instrument, eligible securitisations or asset backed commercial paper is one of the assets mentioned in Article 17(7)(a) of the MMF Regulation
- A.6.30 Whether the Money market instrument, eligible securitisations or asset backed commercial paper is one of the assets mentioned in Article 17(7)(b) of the MMF Regulation
- A.6.48 LEI of the Parent company of the Issuer
- A.6.49 Name of the Parent company of the Issuer
- A.6.64 ISIN of these different assets
- A.6.67 With respect to repurchase agreement, please indicate `the amount of cash received by the MMF as part of repurchase agreements (as mentioned in Art 14(d) of the MMF Regulation)?
- A.6.68 With respect to repurchase agreement, please indicate `the amount of cash received by the MMF as part of repurchase agreements (as mentioned in Art 14(d) of the MMF Regulation)?
- A.7.5 Does the MMF provide investors with withdrawal / redemption rights in the ordinary course? (if no, skip remainder of the question and go to Item A.7.10)
- A.7.8 What is the investor "lock-up" period in days (report asset weighted notice period if multiple classes or share or units)

<u>Fields which have been deleted because ESMA considered the corresponding information is relevant at the sub fund level only</u>:

- A.3.6 The number of share classes
- A.3.8 National code of the different share classes
- A.3.9 If there is more than one share class, indicate the oldest share class
- A.3.10 Net asset value of the different share classes (per unit/share (based on the issue and redemption price)
- A.3.11 Net asset value of the different share classes (per unit/share (based on the issue and redemption price)
- A.3.12 Constant net asset value of the different share classes (per unit/share (based on the issue and redemption price) calculated as set out in Article 31 (32) of the MMF Regulation (in the case of CNAV and (LVNAV)) – EUR
- A.3.13 Constant net asset value of the different share classes (per unit/share (based on the issue and redemption price calculated as set out in Article 31 (32) of the MMF Regulation) (in the case of CNAV and (LVNAV)) – base currency
- A.3.14 Shadow net asset value of the different share classes (per unit/share (based on the issue and redemption price) (in the case of CNAV and (LVNAV)) – EUR
- A.3.15 Shadow net asset value of the different share classes (per unit/share (based on the issue and redemption price) (in the case of CNAV and (LVNAV)) – Base currency
- A.3.16 Number of outstanding unit/shares of the MMF of the different share classes
- B.1.12 The single ISIN of the share class/unit
- B.1.13 National code of the share class/unit

<u>Fields which have been deleted for other reasons</u>:

- A.4.1 Total value of assets under management of the MMF – EUR
- A.4.2 Total value of assets under management of the MMF – Base currency

These fields have been removed because as specified in the ITS, it is considered that for the purpose of the requirements under the MMF Regulation, the total value of assets under management equals the NAV of the MMF,

- A.6.55 Whether the outcome of the internal credit assessment procedure is favourable/unfavourable (for the different liquid transferable securities or (other) money market instruments received as part of a reverse repurchase agreement mentioned in Art 15(6) of the MMF Regulation)
- A.6.26 Outcome of the internal credit assessment procedure

These fields were deleted because of the final version of the TA under Article 22, which does not include requirements on quantified credit quality assessment by managers of MMFs.

- A.4.11 7-days gross yield of the MMF
- A.4.12 7-days gross yield of the different share classes
- A.4.13 Yield to maturity
- A.4.14 Yield to maturity of the different share classes
- A.4.16 Calendar year performance (net return) (fund level)

These fields have been deleted because only two ways of measuring performance and yield have been retained in the final reporting template.

- A.6.35 CUSIP of the Other assets
- A.6.37 Product identification type (in the case of financial derivative instrument)
- A.6.38 Product identification (in the case of financial derivative instrument)
- B.1.4 CUSIP of the asset
- A.6.5 CUSIP of the Money market instrument, eligible securitisations and asset backed commercial paper

These fields have been removed because these codes did not seem relevant in the context of the reporting template under the MMF Regulation.

The fields on the reporting of the results of stress tests have been amended according to the changes decided on the Guidelines on stress tests (please see the corresponding part of the feedback statement).

On the other hand, ESMA considered that it was relevant to add the specific following fields in the reporting template:

- A.3.7 Currency of the different share classes
- A.7.11 Payment to investors (in EUR)
- A.7.12 Exchange rate

With respect to the timing of implementation of the database, as mentioned in the consultation paper, ESMA confirms that managers would need to send their first quarterly reports mentioned in Article 37 to NCAs in October/November 2019 (and not in July 2018).

In addition, there will be no requirement to retroactively provide historical data for any period prior to this starting date of the reporting.

In terms of next steps, ESMA will now start working on the Guidelines and IT guidance that will complement the information included in the ITS so that managers of MMFs have all the necessary information to fill in the reporting template they will send to the competent authority of their MMF, as specified in Article 37 of the MMF Regulation.

V. Guidelines on stress tests under Article 28 of the MMF Regulation

Q16: Do you agree that the abovementioned references to EU/international standards are relevant in the context of the issuance by ESMA of guidelines on stress testing of MMFs? Do you identify other pieces of EU/International law that would be relevant in view of the work on ESMA guidelines on stress testing of MMFs?

130. Several respondents have commented on the nature and the purpose of stress tests. One respondent comments that stress tests should not be used as a marketing tool, and should only be used for risk management. Stress tests are useful to help managers to assess a fund and assess the consequences of variations of market circumstances (interest rate, spread, redemption, liquidity, spread volatility, changes in monetary policy).

131. Several respondents state that money market funds are not managed through stress tests, and there should be no fail/succeed logic because stress tests are checks that should provide an assessment that captures potential fragilities/risk at a given time. In their view, a specific level of stress test should not be imposed because the assessment depends on each fund's characteristics at a specific moment.

132. In particular, one respondent says that they would recommend leaving the definition of quantitative limits to asset managers based on their recent experience and risk appetite. On respondent indicates that a principle of proportionality should be applied and results should come together with a text item because results are of little interest if no context is given.

133. Regarding references to EU level rules, six respondents mention the UCITS and AIFMD framework. In particular, four say that the reference to UCITS and AIFMD should be taken into consideration. One of these notices that this is consistent with the FSB high-level recommendations on the risk of redemptions and asset fire sales. Another two respondents comment specifically on the AIFMD. One states that the AIFMD framework may be relevant. The other respondent believes that the reporting exercise under MMFR should be consistent but much narrower than the reporting under AIFMD, because the reporting proposed by ESMA is in its view overly onerous, and appears to be drawn from the AIFMD Annex IV reporting template. In its view, the latter template is intended to capture a very broad universe of funds and MMFs are a far narrower universe than AIFs and will have narrower investment powers. Therefore, a lot of the information reported does not appear, in its view, necessary.

134. Regarding the references to the US approach, six respondents agree that it is an important reference to consider, but that there are differences between the EU and the US MMF market. This should be highlighted and taken into account where appropriate. Therefore in their view the US regulation should not be extrapolated into EU rules and any references to purely national US standards should be avoided.

135. Regarding other applicable guidance and recommendations, one respondent says that the Recommendation 6 from the applicable Financial Stability Board (FSB) paper (to address structural vulnerabilities) may be relevant but they also caution against taking into consideration Recommendation 9 on system-wide stress testing.

136. Other comments regard the application date of the draft Guidelines. These respondents suggest that ESMA should not create earlier application dates than those outlined in the MMFR itself. Another one suggests that ESMA should adopt a principles-based approach for the stress test Guidelines and also comments that they do not see the point in differentiating between VNAV and LVNAV MMFs for what concerns stress tests.

137. Finally, on the aggregation of stress tests several responses have been received. One respondent says that the proposed aggregation of stress tests and the proposed reverse stress test are not in the ESMA mandate. Another one comments that they are sceptical that aggregation of stress tests will give a manager a more useful picture of risk than stress testing at the fund level. They think that the fund level is a sounder basis for appropriate risk management.

138. The same respondent believes that encouraging managers to undertake aggregate stress tests might be counterproductive because aggregating stress test across funds managed by the same firm is not likely to give meaningful results. In their view, the idea of aggregating stress tests originates from FSB Recommendation 9, which they view as a concept which is still being developed in terms of its potential utility. Therefore, they recommend ESMA not to include aggregate stress test in the final Guidelines.

Q17: Do you have specific views on the interpretation of the requirements of Article 28(1) of the MMF Regulation on the meaning of the abovementioned “effects on the MMF”?

139. Six respondents do not believe that volatility would be a significant item when stress testing MMFs. Two of these respondents say that they prefer elements mentioned in 205a, 205c, 205d and 205e because they think that effects on price (NAV), liquidity ratios, the ability to meet redemptions and the valuation buffer are meaningful. However, they do not support the wording “bucket” of liquidity and would prefer ESMA not using such wording, which has no legal meaning within MMFR. Five other respondents require clarification on this concept. In addition to this, again regarding paragraph 205, two respondents highlight that the provisions should be

replaced with the exact reference to MMFR requirement to comply with minimum ratios of liquidity.

140. One respondent suggests limiting the stress test only to the factors that could be relevant for the single MMF. According to one respondent, the Guidelines should be limited to scenarios on the investment fund level as required by the MMFR, and ESMA should take into consideration the progress that is made at global level in the discussion of the scope and use of stress test. Four respondents agree on the fact that the outcome of the stress test should be measured in terms of NAV impact and liquidity ratio. Three respondents believe that the asset manager should stress test the impact of various factors listed in level 1 of the portfolio or net asset value.

141. Three respondents advocate that the objective of the stress test is to identify extreme events that may lead to catastrophic losses and could lead to the need to invoke an action plan. More precisely, one of these respondents indicates that their experience has made them focus on a set of a key risks; interest rate movements and investor redemptions. This approach has been further supported by the requirements of rating agencies. Overall, they advocate that this focused practical approach should be maintained with the output generated using the intermediate approach (c) being reported to ESMA. However, they have concerns over the breadth of some aspects of the proposed draft advice.

142. An example of such a concern is that in their view some of the suggested macro-economic testing requirements appear too extreme and hypothetical and therefore lack usefulness. Therefore, they suggest deleting or amending some of the Guidelines. Moreover, factors (a), (b) and (e) mentioned in this part of the draft Guidelines become in their view relevant only where assets are not held to maturity. Meanwhile the volatility of NAV is a significant issue for standard MMFs because of their lower regulatory liquidity requirements and the consequence on the ability to be able to sell to the market to generate liquidity.

143. Two respondents object to the idea of aggregating stress tests and reverse stress tests. In particular, one respondent states aggregation of stress tests are not appropriate in the context of MMFs. Stress testing at the fund level is important and should give the fund manager and the relevant competent authority the most accurate account of relevant risks inherent in the relevant fund. However, in their view because each fund is unique from a legal, regulatory, portfolio, and client perspective, it is not practical to think that each MMF will be equally impacted by the same scenarios. They opine that aggregating stress tests across funds would fail to produce meaningful results, and could have unintended consequences in terms of creating ‘false positives’, or exaggerating the impact of potential stress factors on a particular fund.

144. A respondent further states that aggregate stress testing is not specifically prescribed by the MMF Level 1 Regulation. Moreover, on paragraph 19 of the Guidelines, the same respondent suggests taking a matrix approach to better visualise the combination of events that would lead to an impact on NAV of -50bps, i.e. scenarios

involving the simultaneous impact of a range of yield curve shifts, spread widening and outflows. They also suggest a matrix approach at paragraph 22. This would lead to over 500 scenarios tested with the matrix rather than the drafted 40.

145. Finally, one respondent is of the view that the outputs from the stress on the MMF should enable understanding of the impact on the portfolio's NAV as well as the means to meet redemptions without diluting the interest of remaining investors. The impact of rebalancing of the portfolio following large redemption requests may also be assessed as part of the stress test in order to mitigate the risk of dilution of the remaining investors in the fund.

146. Stress tests should incorporate spread shocks from both credit and interest rates and the effects on the NAV given various redemption scenarios. They believe that the effects on the MMF should include impact on weekly liquidity of the fund and the stability of the fund's NAV based on changes in rates, spreads redemptions and credit impacts and combination thereof.

Q18: Do you have views on the specifications of the following criteria:

1. **level of changes of liquidity of the assets with respect to Article 28(1)(a),**

2. **levels of changes of credit risk of the asset with respect to Article 28(1)(b),**

3. **levels of change of the interest rates and exchange rates with respect to Article 28(1)(c),**

4. **levels of redemption with respect to Article 28(1)(d),**

5. **levels of widening or narrowing of spreads among indexes to which interest rates of portfolio securities are tied with respect to Article 28(1)(e),**

6. **identification of macro-systemic shocks affecting the economy as a whole with respect to Article 28(1)(f))? (how would set the calibration of the relevant factors in the case of the Lehman Brothers' event and the two proposed scenarios A and B? With respect to scenario B mentioned above, do you think the duration of 12 months is appropriate?)**

General comments

147. Four respondents would like to change the section "Non-exhaustiveness of the factors mentioned in the following sections, 5.2 to 5.7 below". They propose a rewording of the first sentence, from "minimum requirements" to "illustrative requirements" because in their view the purpose is not to standardise requirements but to apply stress test that enable meaningful assessment to the specific fund in order to capture fragilities and risks at a certain point of time.

148. In the view of two out of these four respondents, the macroeconomic criteria are redundant while for another one ESMA should adopt a coherent principle-based approach in chapter 5.1 that is aligned with the one taken in the remaining chapters and reach such principle-based approach. In particular, they refer to examples such as those referred on page 157, in the section "non-exhaustiveness of the factors mentioned in sections 5.2-5.7 below".

149. The principle-based approach is advocated by another respondent who asks ESMA to establish Guidelines following this principle. Another respondent indicates that they are generally favourable to the analysis made by ESMA in the Guidelines on stress tests. They understand the suggestion to conduct reverse stress tests but these should not be mandatory. However, they would like the principle of proportionality to apply when considering stress tests on the aggregated universe of MMFs run by the same asset manager. In their view, smaller firms should be exempted from aggregated stress tests while for larger firms the frequency should be determined with proportionality by the asset manager and the NCA.

150. Finally, according to another respondent it may be useful to list the different factors that could be taken into account when stress testing the MMF. Nevertheless, they think that whatever the criteria and scenario, the impacts on an MMF can be classified in three categories: impacts of credit spreads, impacts of interest rates and impacts of redemptions. Stress scenarios should be kept simple as MMFs have rather straightforward investment strategies and no specific level of stress testing should be imposed on managers, they should themselves define shock levels that are appropriate to the way funds are managed.

Level of changes of liquidity of the assets with respect to Article 28(1)(a)

151. According to a respondent, this criterion is more relevant to a 'standard' MMF compared to 'short term' MMFs given the difference in the operating models. 99% of assets owned by short term MMFs are held to maturity while standard MMFs are required to carry much less immediate liquidity and are allowed three times longer WAM and four times longer WAL which increase the risk sensitivity commensurately.

152. The respondent believes that, taken together, these factors limit the opportunities for portfolio management through reinvestment at maturity and make the management of asset liquidity risk critically important. They opine that the criticality of this point to standard MMFs should be reflected in the Guidelines. In the view of the second respondent, this is an important factor to be taken into account and could usually be associated to either the bid-ask spread of the assets or to trading volumes. Bid/offer spreads are not always an appropriate indicator of liquidity in their view. In relation to the liquidity of assets and their correlation to bid-ask spreads, they indicate that changes in the liquidity of a MMF's holding and the resultant changes in portfolio NAV would be no different from those tested under widening credit spreads. Thus, in their view, there seems to be a duplication of testing in the widening of spreads as proposed under Article 28 (1)(e) of the Regulation.

153. The final respondent suggests a differentiation in the Guidelines with respect to the liquidity of standard MMFs and short-term MMFs. They view that changes of liquidity can be incorporated into the market stress scenario. Stressing redemptions as a stand-alone test might not result in significant NAV impacts but if combined with a market stress scenario it may provide more accurate results. In their view, MMFs generally buy and hold and so the bid-side is less impactful. They are of the view that it would be more beneficial to use the matrix approach, allowing multiple combinations of yield curvy shifts, spread widening and outflows.

Levels of changes of credit risk of the asset with respect to Article 28(1)(b)

154. On the levels of changes of credit risk of the asset with respect to Article 28(1)(b) one respondent is of the view that, within the investment horizon, there is an extremely remote likelihood of downgrade or default of assets issued by the ECB (or equivalent) and other regulated entities. This is in line with the analysis of rating performance by the CRAs. They outline that the possible deterioration of credit is dynamically managed through continuous reinvestment activity.

155. The respondent goes on to state that credit spread risk allows understanding the impact of a downgrade or default on the NAV of the portfolio and its components but these hypothetical NAV movements only become of practical significance to the extent that the shadow NAV breaches a regulatory limit and/or if the security is not held to maturity. According to two respondents, credit spread is a reasonable proxy for credit risk as probabilities of default or rating migration could be difficult to include in stress test scenarios.

156. These respondents also state that to a certain extent, spreads adequately account for downgrade/default risk. These views are also shared by another respondent. In addition the same respondent suggests deleting paragraph 32 (pp. 158) because they do not favour the link between “material change” and “the relevant…” contained in the wording. This suggestion is also supported by another respondent.

157. Regarding the stress scenarios, one respondent recommends having a hypothetical default shock to the counterparty with whom the MMF has the largest exposure, produced with historically determined recovery-rate assumptions. The respondent agrees with the single-factor credit spread widening scenarios and they believe that an MMF manager should be able to determine the calibration of the level of shock to be applied based on market and historic scenarios rather than prescriptive levels set by ESMA.

158. Finally, ESMA should in the respondent’s view clarify that the specific scenarios references in paragraph 33-36 of the Guidelines are merely examples, and include in the Guidelines a comprehensive range of scenarios. According to another respondent, most options have their own limitation; the option in which “managers could also consider parallel shifts of the credit spreads of a certain amount of the portfolio” may be added.

Levels of change of the interest rates and exchange rates with respect to Article 28(1)(c)

159. According to one respondent, the amount of testable items on FX is very limited because MMFs have to be totally hedged when they hold assets in a currency that is not the reference currency of the fund or share class. According to another respondent, long-term interest rates appear to have little relevance in consideration of the short dated actively managed portfolios.

160. Another respondent provides a counterview, stating that the proposed stress tests are reasonable and are worth being included in the stress-testing framework. However, they believe that given that the options laid out in the section also had their limitations, they suggest that managers should be offered the option to consider a matrix of interest rates/credit spreads.

161. Finally, the same respondent suggests that the test for increases in FX rates only be required for funds that engage in cross-currency trades. Another respondent agrees with the proposal to have parallel shift shocks with various degrees of increases in interest rates. The calibration of shocks should be dynamic to a changing environment. Moreover, they opine that in order to achieve a more correlated move across asset classes, MMF managers should also shock interest rates as part of a multi-factor stress test.

Levels of redemption with respect to Article 28(1)(d)

162. One respondent advocates an approach based on investor concentration and prescribed levels of aggregate redemption. They are of the view that the approach that attributes a propensity to redeem based on the characteristics of individual investors is highly speculative. According to another respondent, the combination of different risk factors (such as interest rates FX) with potential redemptions of investors would increase the number of assumptions that are part of the stress test. Moreover, an increase in complexity would reduce the relevance of stress test and the benefits for the MMF manager.

163. Moreover, the respondent states that a test on the largest five investors can be a challenging task. Three respondents agree that the 'X% redemption scenario' should be complemented with assumptions about how assets would be sold to meet redemptions, otherwise it makes it difficult to compare MMFs across Member states. Assumptions are also needed in relation to how much market price impact will be incurred by these assets sold in a distressed or potentially illiquid market environment.

164. The same respondents would view any requirement to assume "vertical slicing" as being less realistic, as the shortest-dated, most liquid assets would likely be used up first. Additionally, the requirement to incorporate exit fees & 'gates' into redemption scenarios (sec. 5.5.38 pp. 160) seems to add much complexity to the analysis without clear benefits and possibly less conservative outcomes. Furthermore, they opine that

the options for calibrating the level of redemptions to historical experience or investor behaviour models based on investor type and different outflow assumptions each have their limitation. They agree with the option in which redemption scenarios include a percentage of the liabilities (between 20% and 50%).

165. The same respondents believe that a peer fund's redemption history should be considered/analysed as a basis to estimate expected levels of redemptions. And that the difference between behaviour of institutional and retail investors needs to be kept in mind. One respondent believes that prescriptive levels of redemptions should not be fixed for all MMFs. Finally, one respondent believes that stand-alone shock to redemption may not be very useful. They suggest overlying each of the single factor-multi/factor stress scenarios calibrated with redemption shocks. In the Guidelines, ESMA describes a liquidation process known as slicing, in which the same percentage of each asset type is sold. They suggest that a methodology that requires the liquidation of shortest-dated instruments first would be a more conservative approach for MMF managers to adopt.

Levels of widening or narrowing of spreads among indexes to which interest rates of portfolio securities are tied with respect to Article 28(1)(e)

166. According to one respondent the proposed stress are reasonable and worth being included in the stress test framework. On the other hand, two other respondents have a different view. According to one, they believe that appropriate stress testing of interest rate and credit risk include the "widening or narrowing of spreads" and consequently they do not see what Article 28(1)(e) refers to. One other respondent believes that stand-alone testing for funding spread is not required.

Identification of macro-systemic shocks affecting the economy as a whole with respect to Article 28(1)(f))? (how would set the calibration of the relevant factors in the case of the Lehman Brothers' event, and the two proposed scenarios A and B? With respect to scenario B mentioned above, do you think the duration of 12 months is appropriate?)

167. Two respondents agree that a scenario combining three different items would be appropriate. Scenarios A or B described in paragraph 225(f) are a combination of 'worse case' interest rates, credit spread and redemption level stress test scenarios that are of most relevance to MMFs in their view. They state that in the end, macro-systemic shocks are the outcome of the other factors that are already being tested. Therefore, they see some redundancy in the use of macro-economic criteria.

168. Further, the same respondents do not advocate limiting the time horizon to one year for historical data as it would have been 'almost useless' in the months preceding the Lehman crisis. Stress tests can provide some information about the way a portfolio would react to extreme situations at a given time, they state, and as such they give valuable information to fund managers. Nevertheless, they do not think that an MMF should be managed with a "fail" or "pass" approach.

169. One of those two respondents also adds that as recommended by the FSB, it is the task of the authorities to analyse the level of systemic relevance of these exercises. Further, it is their role to consider whether and how to incorporate such potential impact in system-wide stress testing to better understand collective behaviour dynamics as well as the impact on financial markets and on the financial system more generally. Finally, they do not support the reference to the UK Prudential Regulation Authority's calibration of global stress test (paragraph 48).

170. This final view is also shared by another respondent who also adds that they agree with ESMA's proposal since it is not prescriptive in its guidance. They also appreciate the example suggested in paragraph 48. Even if the criteria are not mandatory, they propose deleting the reference to the macro-systemic shock, including GDP, in paragraph 47. This criteria and the PRA's calibration are referring directly or indirectly to banking legislation.

171. The respondent outlines that macro-systemic shock should then be adapted in the context of the internal risk management measurement of an asset manager and, would be calibrated to an MMF. Indeed, GDP is not usually considered as an individual factor in the risk management system, while market risk factors and sensitivities (such as duration and beta) are used. According to another respondent, macro-systemic shocks will have direct and indirect impacts on the already identified risk factors that are to be stress tested (credit, liquidity, interest rate). They do not see the reason to link variations of those factors to macroeconomic data. They welcome non-mandatory, illustrative scenarios because this would ease the common understanding of what stress test should be.

172. Finally, one last respondent agrees that in addition to the single factor shocks, it is relevant to have multi-factor stress scenarios based on historical data that can be calibrated based on multiple macro-economic narratives. This would be consistent with scenario A under Article 28(1)(f). In addition, these scenarios could be combined with relevant redemption shocks. For scenario B, they believe that stress testing should be agnostic of current market volatility and correlations, and scenarios should be calibrated over longer time horizons to avoid underestimating potential tail risk. They do not agree with a single factor shock to the GDP as it might imply an underlying assumption that it is the only variable that drives macro-economic events. Furthermore, it might not qualify as a stress event causing a redemption/investor run scenario. The impacts of macro-systemic shocks are often difficult to predict.

Q19: Are you of the view that ESMA should specify other criteria that should be taken into account? If yes, which ones?

173. None of the respondents thinks that other specific criteria should be taken into account. Nine respondents believe that no other criteria should be taken into account because some are already redundant, for example, the macroeconomic ones since the macroeconomic environment is already expressed inside market parameters (like spreads and interest rates).

174. Moreover, these respondents opine that ESMA should only specify the criteria that will provide information that are useful and timely, while the creation of historical data is not the purpose of stress test. They believe that additional criteria will not always make stress tests more robust. Finally, one respondent welcomes ESMA's proposals to use the LEI in the MMF reporting framework. This comprehensive usage would help ESMA in its analysis of the structured data collected for MMF reporting.

Q20: Are you of the view that other topic should be covered in the ESMA guidelines under the requirements of Article 28 of the MMF Regulation?

175. Several respondents are satisfied with the work done by ESMA and do not believe that additional topics should be covered by ESMA in the Guidelines.

176. They outline that stress tests should be applied in an efficient way, in particular limiting IT and governance costs. Moreover, they should not reduce the capabilities of asset managers to act and react on a daily basis and should not go beyond the MMFR because they should not become new constraints.

177. One respondent stresses the importance of applying a principle of proportionality and that the Guidelines have to leave the manager the flexibility to build its own stress tests. Finally, in drafting the Guidelines ESMA has to follow the MMFR because the purpose is to establish common reference parameters.

ESMA Response (to comments on the questions related to the Guidelines on stress tests):

ESMA had consulted on the option of an intermediate approach that would specify quantitative (or detailed) criteria or thresholds for some of the factors listed in Article 28(1) of the MMF Regulation (e.g. changes in the level of liquidity of the assets, movements of the interest rates and exchange rates, levels of redemption). There would be a more principle-based approach for other factors.

Given the feedback received from stakeholders, ESMA decided to include two different parts in the Guidelines. The first one would follow a principle-based approach and would not specify any quantitative criteria nor threshold (in relation to all factors listed in Article 28(1) of the MMF Regulation). These are the sections 5.1 to 5.7 of the Guidelines included in this final report. In addition to the stress tests managers of MMFs will conduct taking into account the requirements included in these sections 5.1 to 5.7, ESMA is of the view that managers of MMFs should conduct common reference stress test scenarios, the results of which should be included in the reporting template mentioned in Article 37(4) of the MMF Regulation. The second part of the Guidelines will therefore include these common reference stress test scenarios, the results of which will be included in the reporting template mentioned in Article 37(4) of the MMF Regulation (the ITS have been accordingly modified). (This is section 5.8 of the Guidelines included in this final report.)

Given the feedback received from stakeholders on the different quantitative criteria and thresholds (in relation to all factors listed in Article 28(1) of the MMF Regulation), ESMA is of the view that more time is required to specify the corresponding calibration parameters. These calibrations will be specified when ESMA first updates the Guidelines, in a timely enough manner that managers of MMFs receive the appropriate information on these fields to fill in the reporting template mentioned in Article 37 of the MMFR. The merits of including such common reference stress test scenarios are that this will allow ESMA and competent authorities to compare the results of the stress tests of MMFs across the EU, whilst allowing ESMA to update on a regular basis the calibration parameters of such stress tests to take into account market changes. The monitoring of the EU MMF market would therefore receive significant enhancement. These common reference stress tests would be univariate and multivariate.

Managers of MMF would include in the reporting template, outlined in Article 37(4) of the MMF Regulation, the results of the following stress tests (included in the section 5.8 of the Guidelines and in the corresponding fields of the reporting template):

Risk factor	**Calibration**	**Results**
Liquidity		
Credit		
FX Rate		
Interest Rate		
Level of Redemption		
Spread among indices to which interest rates of portfolio securities are tied		
Macro		
Multivariate		

It is also to be noted that when updating these guidelines ESMA will consider whether to amend the level of granularity of the requirements on the different risk factors, and the level of complexity of the overall proposed approach.

On the aggregation of stress tests and reverse stress testing, whilst stakeholders were split on the merits of retaining this paragraph in the Guidelines, a majority was of the view that these paragraphs should be removed. Given this feedback, ESMA amended these paragraphs in such a way that the aggregation of stress and reverse stress tests are simply an option for managers of MMFs, and not required by ESMA.

VI. Cost benefit analysis

Q21: Do you agree with the assessment of costs and benefits mentioned in the CBA (Annex III) on the different options on the Guidelines on stress tests? If not, please explain why and provide any available quantitative data on costs (if any) that the proposal would imply.

While responding to this question stakeholders might use the following table for example:

a. IT costs		b. Training costs		c. Staff costs	
IT One-off	IT Ongoing	TR One-off	TR Ongoing	ST One-off	ST Ongoing

178. Two respondents believe that stress test results should come with a free text field that could provide some context to the data. They state that the purpose of stress tests is to have an assessment tool and not a comparison or a management tool. They opine that implementation of these can be costly and therefore they should be designed in a way that on the one-hand limits the cost of implementation, and on the other maximises their meaningfulness. As such, to be meaningful only illustrative examples should be given and the manager should be able to perform a case-by-case analysis.

179. Regarding the choice between options, two respondents support option 1 whilst four support option 3. Among those that favour option 1, one states that they agree with the costs and benefits highlighted, and supports option 1 because it allows for customised stress testing. Whilst the other respondent supports this option because offers a “high-principle based approach” without any specific and quantitative criteria.

180. Moreover, the above respondents welcome the wording “could” because it is coherent with a principle-based approach – but as long as ESMA adapts the wording of chapter 5.1. They outline that asset managers should be permitted to adapt their procedures without too much burden, and therefore welcome high-level principles that are clear, but not mandatory. They further opine that if too stringent, Guidelines could increase costs and yet would not produce a valuable outcome. Finally, in theses respondents’ view ESMA should avoid comparison of stress tests across Europe because the purpose of stress testing is to point to potential vulnerabilities at an esoteric fund-level.

181. Among those that support option 3, costs seem to be the main driver for the choice. In particular, one respondent welcomes the idea of an option that delivers high-level principles on most criteria and precise, but not mandatory, provisions on thresholds and limits on a few criteria such as liquidity of assets, movements on interest rates or levels of redemption. The respondent appreciates the annual review of the Guidelines and they suggest that these should be characterised by a low level of prescriptiveness. Doing so, there will be in their view a fair balance of costs for regulators and as well as allowing asset managers to spread the cost of new development over several years, and avoid operational challenges.

182. Finally, some respondents emphasised that flexibility will enable both regulators and managers to control costs, and outline that there will be a number of regular (annual) costs resulting from this activity. Again, on costs, another respondent stresses that costs should not be underestimated, in particular operational costs are likely to increase. They state that some level of standardisation could increase comparability but stress tests should be relevant and appropriate. In the view of another respondent option 3 is a fair balance between costs and benefits, because option 1, which appears the least expensive, is not feasible because would it make comparison of results across Europe impossible. Option 2 is more expensive than 3, and in addition to this they state, option 3 seems to mitigate systemic risk related issues. Moreover, the choice of quantitative parameters seems to be an obstacle of option 2. They suggest that aligning requirements with those established by the SEC would lead to lower costs on the asset manager side and on the level of the service providers. This would they state increase efficiency, calibration of stress tests, and identification of stress events as well as setting up operational processes.

183. Finally, the last respondent favours option 3 but suggests amendments. They propose to adapt the language used in chapter 5.1 to incorporate a more principle-based approach because in doing so the option would have high-level principles that are clear, but not mandatory. Option 1 is not acceptable in their view because it would leave too much discretion to national regulators. An amended version of Option 3, would be less expensive than option 2 and it would also have the benefit of mitigating systemic risk related issues. Again, this respondent further states that the choice of qualitative parameters is the most challenging issue with regards to option 2, and suggests that ESMA use quarterly reporting to undertake its own stress testing for systemic risk.

3 Annexes

3.1 Annex I

Legislative mandate to develop technical standards

Under the requirements of Article 37(4) of the MMF Regulation ESMA is required to develop draft ITS to establish a reporting template.

- Article 37 of the MMF regulation provides that:

  Reporting to competent authorities

1. For each MMF that it manages, the manager of the MMF shall report information to the competent authority of the MMF on at least a quarterly basis.
By way of derogation from the first subparagraph, for an MMF whose assets under management in total do not exceed EUR 100 000 000, the manager of the MMF shall report to the competent authority of the MMF on at least an annual basis.
The manager of an MMF shall upon request provide the information reported pursuant to the first and second subparagraphs also to the competent authority of the manager of an MMF, if different from the competent authority of the MMF.

2. The information reported pursuant to paragraph 1 shall comprise the following points:

(a) the type and characteristics of the MMF;
(b) portfolio indicators such as the total value of assets, NAV, WAM, WAL, maturity breakdown, liquidity and yield;
(c) the results of stress tests and, where applicable, the proposed action plan;
(d) information on the assets held in the portfolio of the MMF, including:

(i) the characteristics of each asset, such as name, country, issuer category, risk or maturity, and the outcome of the internal credit quality assessment procedure
(ii) the type of asset, including details of the counterparty in the case of derivatives, repurchase agreements or reverse repurchase agreements;

(e) information on the liabilities of the MMF, including:
(i) the country where the investor is established;
(ii) the investor category;
(iii) subscription and redemption activity.
If necessary and duly justified, competent authorities may solicit additional information.

3. In addition to the information referred to in paragraph 2, for each LVNAV MMF that it manages, the manager of an MMF shall report the following:

(a) every event in which the price of an asset valued by using the amortised cost method in accordance with the first subparagraph of Article 29(7) deviates from the price of that asset calculated in accordance with Article 29(2), (3) and (4) by more than 10 basis points;
(b) every event in which the constant NAV per unit or share calculated in accordance with Article 32(1) and (2) deviates from the NAV per unit or share calculated in accordance with Article 30 by more than 20 basis points;

(c) every event in which a situation mentioned in Article 34(3) occurs and the measures taken by the board in accordance with points (a) and (b) of Article 34(1).

4. ESMA shall develop draft implementing technical standards to establish a reporting template that shall contain all the information referred to in paragraphs 2 and 3.
ESMA shall submit those draft implementing technical standards to the Commission by ...[six months after the date of entry into force of this Regulation].
Power is conferred on the Commission to adopt the implementing technical standards referred to in the first subparagraph in accordance with Article 15 of Regulation (EU) No 1095/2010.

5. Competent authorities shall transmit to ESMA all information received pursuant to this Articl. Such information shall be transmitted to ESMA no later than 30 days after the end of the reporting quarter.
ESMA shall collect the information to create a central database of all MMFs established, managed or marketed in the Union. The European Central Bank shall have a right of access to that database, for statistical purposes only.

Mandate from the European Commission to develop technical advice (letter from the Commission dated 20 January 2017)

The letter from the European Commission dated 2017 reads as follows:

Subject: Provisional request to ESMA for technical advice on delegated and

implementing acts as required by the Regulation on Money Market Funds

Dear Mr. Maijoor,

The Commission services would like to request the advice of ESMA on the preparation of the delegated acts to be adopted by the Commission pursuant to the soon-to-be-adopted Regulation on Money Market Funds (MMFs).

The MMF Regulation introduces a fully harmonised framework for MMFs, which aims to preserve the integrity and stability of the Union's financial market whilst delivering a high level of transparency and investor protection. ESMA is invited to take these overarching objectives into account when providing its technical advice to the Commission.

The request for technical advice relates to the delegations provided for in Articles 13 and 19 of the MMF Regulation, which require the MMF Regulation to be supplemented by further specifying:

• quantitative and qualitative liquidity requirements applicable to assets referred to in

Article 13(5) and quantitative and qualitative credit quality requirements applicable to

assets referred to in Article 13(5(a));

• the criteria for the validation of the credit quality assessment methodology referred to in Article 16(2);

• the criteria for quantification of the credit risk and the relative risk of default of an

issuer and of the instrument, referred to in Article 17(2)(a);

• the criteria to establish qualitative indicators on the issuer of the instrument as referred to in Article 17(2)(b); and

• the meaning of material change as referred to in Article 16(3)(ca).

With respect to the delegation referred to in Article 13, ESMA is invited to advise the Commission on the criteria and characteristics of the assets referred to in Article 13(5) that ensure that the liquidity profile of the MMF is not endangered in case it is forced to liquidate those assets following the default of a counterparty.

Similarly, when advising the Commission on the details of the credit quality assessment referred to Article 19, ESMA is invited to take account of the negative consequences that the default of an issuer of a security held by the MMF may not only have for the MMF itself but also for financial markets as a whole.

The present request for advice is based on the text of the Regulation as confirmed by the Council's Permanent Representatives Committee and the European Parliament's Economic and Monetary Affairs Committee (ECON). It is still subject to a full plenary vote in the European Parliament, which is expected to take place in March 2017. The Commission services do not however expect further changes in substance notwithstanding the process of legal revision may result in drafting amendments and, as the case may be, the renumbering of legal provisions. The Commission services will keep ESMA fully informed of any such developments.

It is the Commission's established practice to adopt delegated acts well before the date of application of a Regulation. Taking into account that the MMF Regulation will apply from 12 months after its entry into force, the Commission services request ESMA to deliver its advice by 31 July 2017.

In accordance with the principles of Better Regulation, the Commission, in preparing its delegated acts, is required to prepare a detailed impact assessment. The Commission would therefore invite ESMA to underpin its advice by first identifying a range of policy options and then undertake an assessment of the costs and benefits of each option. The results of this assessment should be submitted alongside the advice.

The technical advice provided by ESMA to the Commission should not take the form of a legal text. However, ESMA should provide the Commission with a structured text accompanied by detailed explanations for the advice given.

The services of the Commission will, after transmission to ESMA, publish this provisional request for advice and any updated versions on the website of the DG for Financial Stability, Financial Services and Capital Markets Union.

3.2 Annex II

Cost-benefit analysis

1. Introduction

1. The MMF Regulation sets out a comprehensive framework for the regulation of MMFs within Europe. MMFs are AIFs or UCITS that are managed by alternative investment fund managers (AIFMs) or UCITs management companies or investment companies

2. The MMF Regulation establishes uniform rules regarding MMFs. Together with the aforementioned letter from the European Commission dated 20 January 2017, It mandates ESMA to develop technical advice, ITS and guidelines on a certain number of aspects of the Regulation, described above in sections II to VII of this final report.

3. This final report sets out proposals for this technical advice on reverse repurchase agreement and credit quality assessment, ITS on the establishment of a reporting template and guidelines on stress testing.

4. This CBA takes into account input received from stakeholders when answering to the corresponding questions included in the consultation paper.

5. For the purpose of this CBA and consultation paper, ESMA collected information on the market of MMF from national competent authorities. This information is presented in the end of this section on the CBA.

2. Technical options

6. The following options were identified and analysed by ESMA to address the policy objectives of each of the technical advice, ITS and guidelines required under the MMF Regulation.

7. In identifying the options set out below and choosing the preferred ones, ESMA was guided by the relevant MMF Regulation rules.

2.1. Technical advice under Article 15 of the MMF Regulation (reverse repurchase agreement)

Policy Objective	According to **Article 15** of the MMF Regulation, a reverse repurchase agreement will be eligible to be entered into by a MMF provided that the following conditions are fulfilled: a) the MMF has the right to terminate the agreement at any time upon a notice of maximum two working days; b) the market value of the assets received as part of the reverse repurchase

	agreement is at all times at least equal to the value of the cash given out. **Article 15(6)** of the Regulation stipulates that the assets received by the MMF as part of a reverse repurchase agreement must be money market instruments eligible for investment by a MMF (excepted securitisation and ABCP). By way of derogation from this requirement, a MMF may receive as part of a reverse repurchase agreement liquid transferable securities or money market instruments other than money market instruments eligible for investment by a MMF provided that those assets comply with one of the following conditions: a. They are issued or guaranteed by the Union, a central authority or central bank of a Member State, the European Central Bank, the European Investment Bank, the European Stability Mechanism or the European Financial Stability Facility provided that a favourable assessment has been received pursuant to **Articles 19 to 22**; b. they are issued or guaranteed by a central authority or central bank of a third country, provided that a favourable assessment has been received pursuant to Articles **19 to 22.** Under the requirements of **Article** 15(7)**,** the Commission is empowered to adopt delegated acts specifying liquidity requirements (both quantitative and qualitative) applicable to assets referred to below and specifying credit quality requirements (both quantitative and qualitative) applicable to assets referred to below in (a)**).**
Baseline scenario	The baseline scenario should be understood for this CBA as the application of the requirements in the Level 1 Regulation (i.e. the provisions of Article 15 of the MMF Regulation) without any further specification. This would leave discretion to managers of MMF to determine the abovementioned quantitative and qualitative credit quality and liquidity criteria. This could clearly lead to a lack of harmonisation in the application of the provisions of the MMF Regulation across the MMF industry on a potentially sensitive issue. Indeed, uncertainty on the abovementioned requirement could lead to a situation where some Member States would adopt stricter rules than others on the choice of the abovementioned

	quantitative and qualitative credit quality and liquidity criteria, leading to greater uncertainty for investors of MMFs in the different Member States. For instance, some Member States could consider that only specific types of assets might be eligible for that purpose. This would be particularly problematic in the context of the EU passport of the AIFMD/UCITS Directive.
Options	With respect to credit quality requirements, the option that is suggested would be to consider that the MMF Regulation, which does not refer anymore to "high credit quality " requirements but only to a "favourable assessment" (in the context of the credit quality assessment described in Articles 19 to 22 of the MMF Regulation) implies that there should not be any further requirements to be specified by ESMA in the specific context of the Article 15 of the MMF Regulation. The criteria that would be taken into account in the credit quality assessment methodology (and that would therefore trigger the abovementioned "favourable assessment") would be specified in the technical advice under Article 22 of the MMF Regulation. With respect to liquidity requirements, the two options that are suggested could include: **Option 1:** This option is based on an approach whereby liquidity requirements applying to the collateral depend on the risk of default of the counterparties to the reverse repurchase agreement and the applicable counterparty risk diversification limit[1]. i. If the counterparty to the reverse repurchase agreement is a European credit institution or European investment firm or any such entity subject to equivalent European prudential regulation[2], ensuring appropriate matching of assets and liabilities, additional liquidity or credit quality requirements with respect to the assets mentioned in Article 15(6) of the MMF Regulation shall be deemed to be met, as under such a situation, the risk of a MMF to be

[1] *each single counterparty to a MMF may account for maximum 15% of the assets of the MMF*

[2] one could use the wording of the PRIIPs Regulatory technical standards on the same topic (Annex 2, Part 2, Section 2 Credit Assessment, §43(a) p.43), which reads as follows:"*If the counterparty to the reverse repurchase agreement is regulated as a credit institution or an investment firm under the applicable Union law or regulation deemed equivalent under the Union law*"

	forced to liquidate the collateral is deemed contained; ii. If this is not the case to ensure sufficient overcollateralization of the reverse repurchase agreement as mentioned in Article 15(1)(b) of the MMF regulation, the following qualitative and quantitative liquidity factors shall be considered with respect to the assets mentioned in Article 15(6) of the MMF Regulation: i) time to maturity of the assets, ii) price volatility of the assets and iii) appropriate stress-testing policy, as per Article 28 of the MMF Regulation, run on a regular basis and carried out under normal and exceptional liquidity conditions to enable a relevant assessment of the liquidity risk attached to the assets composing the collateral. Depending on the above-mentioned liquidity factors, corresponding haircut on the assets composing collateral shall apply, in order to mitigate the risk of loss and offer a gap risk protection, when selling such collateral following the default of the counterparty on a very short time period. Consequently, the MMF may continue complying (i) with its investment objective of preservation of capital and/or return aligned with the money market rate in addition to with (ii) its obligations on the liability side of the portfolio. Such haircut policy should be based on existing standardized haircut, such as those established by the Basel Committee on Banking Supervision (BCBS) (http://www.bis.org/bcbs/publ/d317.pdf, appendix B). **Option 2:** This option is based on the determination of the liquidity profile of the asset composing the collateral based on the following qualitative and quantitative liquidity requirements: i) reasonable expectations of the conversion to cash in one business day with a marginal impact on the market value of the investment, ii) which shall be monitored on a continuous basis and iii) under both normal and exceptional liquidity conditions in accordance with stress-tests run in accordance with Article 28 of

	the MMF Regulation, and taking into consideration various criteria[3]. In the case where the manager of a MMF considers that one or several assets composing the collateral do not comply with a liquid profile, such assets shall either be replaced with liquid assets overnight or the reverse repurchase transaction(s) shall be terminated with a one business day notice);
Preferred Option	While ESMA is of the view that the preferred option with respect to credit quality criteria is the option described above, ESMA decided to consult on the two-abovementioned options on the liquidity criteria because at this stage ESMA had no preferred option between these two options and wanted to gather the views of stakeholders on this point. ESMA discarded other options regarding the credit quality and liquidity criteria, as well as the baseline scenario (application of the requirements in the Level 1 Regulation without any further specification). The vast majority of stakeholders indicated that their preferred option in relation to the liquidity criteria was the first option described above. Taking into account these views, ESMA decided that the preferred option with respect to liquidity criteria is the first option described above.

2.2. Technical advice under Article 22 of the MMF Regulation (credit quality assessment)

Policy Objective	The MMF Regulation indicates that the manager of a MMF must establish, implement and consistently apply a prudent internal credit quality assessment procedure for determining the credit quality of money market instruments, securitisations and asset-backed commercial paper (**ABCP) taking into account the issuer of the instrument and the characteristics of the instrument itself.**

[3] Including:- the bid-ask spreads; - the size of the issue; - the frequency of trades or quotes: - the average daily trading volume;- the size of the collateral position of the MMF relative to the average daily trading volume and the size of the issue;- the issuance date and residual maturity;- the existence of an active market for the asset and the number, diversity, and quality of market participants, including the extent to which they commit to bring liquidity to the market or the daily trading volume;- the number of multilateral trading facilities where the asset is referenced;- the volatility of trading prices for the asset;- the credit quality of the issuer.

Delegated acts are aimed to specify both the criteria for the validation of the credit quality assessment methodology (and the meaning of "material change" in that context) and the criteria for quantification of the credit risk and the relative risk of default of an issuer and of the instrument in which the MMF invests (together with the critria to establish qualitative indicators on the issuer of the instrument).

Credit quality assessment methodology

Under **Article 19 of** the MMF Regulation, the manager of a MMF must establish, implement and consistently apply a prudent internal credit quality assessment procedure for determining the credit quality of money market instruments, securitisations and asset-backed commercial paper (ABCP) taking into account the issuer of the instrument and the characteristics of the instrument itsel**f.**

The internal assessment procedure has to be based on prudent, systematic and continuous assessment methodologies. The methodologies used must be subject to validation by the manager of the MMF based on historical experience and empirical evidence, inclu**ding back testing.**

Under **Article 22(a) of** the MMF Regulation, the Commission is obliged to adopt a delegated act specifying the criteria for the validation of these credit quality assessment methodologies.

The manager of a MMF must ensure that this abovementioned internal credit quality assessment procedure complies with the principles mentioned **in Article 19(3),** including the fact **(Art 19(3)(d)) that** "*while there shall be no mechanistic overreliance on external ratings" a manager of a MMF has to undertake a new credit quality assessment for a money market instrument, securitisations and ABCPs when there is a "material change*" that could have an impact on the existing assessment of the instrument.

Under the requirements of **Article 22(d)** of the MMF Regulation, the Commission is obliged to adopt a delegated act specifying the meaning of that "material change".

Criteria for the quantification of the credit risk

	Under the requirements **of Article** 20 of the MMF Regulation, a manager of a MMF shall assess whether the credit quality of a money market instrument, securitisation or ABCP in which the MMF invests receives a favourable assessment in accordance with the procedure mentioned above. The corresponding internal credit quality assessment has to take into account several factors and general principles mentioned in **Article 20(2)** of the MMF Regulation, including the quantification of the credit risk of the issuer and the relative risk of default of the issuer and of the instrument (**Article 20(2)(a)).** Under the requirements of **Article 22(b)** of the MMF Regulation, the Commission must adopt a delegated act specifying the criteria for such a quantification of the credit risk and such a relative risk of default of the issuer and of the instrument. Article **20(2)(b)** indicates that the corresponding internal credit quality assessment shall also take into account qualitative indicators on the issuer of the instrument, including in the light of the macro-economic and financial market situation. Under the requirements of **Article 22(c)** of the MMF Regulation, the Commission is required to adopt a further delegated act specifying the criteria to establish such qualitative indicators on the issuer of the instrument.
Baseline scenario	The baseline scenario should be understood for this CBA as the application of the requirements in the Level 1 Regulation (i.e. the provisions of Article 19 and 20 of the MMF Regulation) without any further specification. This would leave discretion to managers of MMF to determine the abovementioned criteria for the validation of the credit quality assessment methodologies as well as the quantitative and qualitative criteria for the quantification of the credit risk.This could clearly lead to a lack of harmonisation in the application of the provisions of the MMF Regulation across the MMF industry on a potentially sensitive issue. Indeed, uncertainty on the abovementioned requirement could lead to a situation where some Member States would adopt stricter rules than others on the choice of the abovementioned quantitative and qualitative criteria, leading to greater uncertainty for investors of MMFs in the different Member States. For instance, some Member States could consider that only specific

	types of criteria might meet the requirements of the MMF Regulation for that purpose. This would be particularly problematic in the context of the EU passport of the AIFMD/UCITS Directive.
Option 1	With respect to the requirements of Article 22(a) (validation of the credit quality assessment methodology), ESMA's work could be based on similar work already done in the context of the delegated Regulation on the assessment of compliance of credit rating methodologies (447/2012) and the related ESMA guidelines on the validation and review of Credit Rating Agencies' methodologies (ESMA/2016/1575). However, the exact contents of these would need to be adapted to the specific case of the MMF Regulation. For example, part of the contents of Article 4 is already included in Article 19 of the MMF Regulation. This would also mean that the requirements included in this technical advice could still be further specified in guidelines at a later stage, as has been the case in the abovementioned context of the Credit Rating Agencies' methodologies; With respect to the requirements of Article 22(b) and 22(c) (criteria for the quantification of the credit risk and the relative risk of default of an issuer and of the instrument / criteria to establish qualitative indicators on the issuer of the instrument), ESMA's work could be based on similar work already done in the context of the ESMA technical advice on reducing sole and mechanistic reliance on external credit ratings (2015/1471) and on similar rules in the US SEC reform (IC-31828). More specifically, this would mean that the contents of the MMF technical advice on this point could mirror the approach described in the sections "Rationale for Good Practice on alternative and complementary measures to credit ratings" and "Rationale for Good Practice on proportionality" of the Joint Committee report on good supervisory practices for mitigating mechanistic reliance on credit ratings (JC 2016-71)[4]. With respect to the requirements of Article 22(d) (meaning of a 'material change' that would lead to a new credit quality assessment), a material change that could have an impact on

[4] https://esas-joint-committee.europa.eu/Publications/Reports/JC%202016%2071%20Final%20Report%20Good%20Supervisory%20Practices%20for%20Reducing%20Mechanistic%20Reliance%20on%20Credit%20Ratings.pdf

	the existing assessment of the instrument may relate to all the criteria that the manager of the MMF takes into account in its credit quality assessement methodology and which are referred to in the other parts of the technical advice under Article 22 of the MMF Regulation. It should therefore also be defined what should be meant by 'material change' for the relevant abovementioned different criteria. In order to define what should be meant by 'material change' for the relevant abovementioned different criteria, one may use the risk factors of the stress test scenarios, including those referred to in Article 28 of the MMF Regulation. Because these risk factors would be specified in the Guidelines on stress tests (as referred to in the section 6 of this consultation paper), these would be updated every year. It is therefore suggested to refer to these risk factors that would be updated very regularly, as opposed to including in the technical advice itself specifications on the definitions of 'material change' for each abovementioned criteria, becaues in this case, these specifications could not easily be changed on a regular basis once published in the corresponding delegated act. In addition ESMA's work may also be partly based on the ESMA Opinion on the review of the CESR guidelines on a Common Definition of European Money Market Funds (2014/1103).
Option 2	In the context of this option, ESMA would specify prescriptive requirements in relation to each of the criteria (with respect to the technical advice under Article 22(a), 22(b), 22(c) and 22(d)) mentioned above in option 1. The main difference with option 1 would therefore be the level of prescriptiveness of the option.
Preferred Option	ESMA decided to consult on option 1 and discarded option 2. The baseline scenario (application of the requirements in the Level 1 Regulation without any further specification) was also discarded, as it would have left discretion to managers of MMFs and NCAs to determine the different abovementioned criteria, which would have led to a lack of harmonisation and potential inconsistencies across Europe in the application of one of the key provisions of the MMF Regulation. ESMA felt that option 2 was sub-optimal as a prescriptive approach might create a systemic risk. If all managers of MMF use the same methodology and are invested in the same assets this might introduce some degree of systemic risk In addition, option 1 would not prevent ESMA specifying in subsequent guidelines any point that would need to be detailed

	further. This would be in line with the approach taken in the context of the delegated Regulation on the assessment of compliance of credit rating methodologies, and would also allow ESMA to issue its technical advice in the requested timeframe. When answering to the ESMA CP, stakeholders indicated that their preferred option was also option 1. ESMA therefore decided to maintain its initial views and confirm that ESMA's preferred option is option 1.

2.3. ITS on the establishment of a reporting template (Article 37 of the MMF Regulation)

Policy Objective	The MMF Regulation (**Article 37)** obliges, for each MMF managed, the manager of the MMF to report information to the competent authority of the MMF, at least on a quarterly basis. The frequency of reporting is annual in the case of a MMF whose assets under management in total do not exceed EUR 100 million. These reports need to include a number of elements listed in the Regulation, and ESMA is required to develop draft implementing technical standards (ITS) to establish a reporting template that contains the relevant information. ESMA has to submit those draft ITS to the Commission by 6 months after the entry into force of the Regulation. Under the requirements of Article 37(4) of the MMF Regulation ESMA is required to develop draft ITS to establish a reporting template that contains for each MMF the following information: (a) the type and characteristics of the MMF; (b) portfolio indicators such as the total value of assets, NAV, WAM, WAL, maturity breakdown, liquidity and yield; (c) the results of stress tests and where applicable the proposed action plan; (d) information on the assets held in the portfolio of the MMF:

	(i) the characteristics of each asset, such as name, country, issuer category, risk or maturity, and the outcome of the internal credit assessment procedure; (ii) the type of asset, including details of the counterparty in the case of derivatives, repurchase agreements or reverse repurchase agreements; (e) information on the liabilities of the MMF that includes the following points: (i) the country where the investor is established; (ii) the investor category; (iii) subscription and redemption activity. Under the requirements of Article **37(4)** of the MMF Regulation ESMA is also required to develop draft ITS to establish a reporting template that contains for each LVNAV MMF (in addition to the information mentioned in the previous paragraph) the following information: (a) every event in which the price of an asset valued by using the amortised cost method in accordance with the first subparagraph of Article 29(7) deviates from the price of that asset calculated in accordance with Article 29(2), (3) and (4) by more than 10 basis points; (b) every event in which the constant NAV per unit or share calculated in accordance with Article 32(1) and (2) deviates from the NAV per unit or share calculated in accordance with Article 30 by more than 20 basis points; (c) every event in which a situation mentioned in Article 34(3) occurs and the measures taken by the board in accordance with points (a) and (b) of Article 34(1).
Baseline scenario	The baseline scenario should be understood for this CBA as the application of the requirements in the Level 1 Regulation (i.e. the provisions of Article 37 of the MMF Regulation) without any further specification. This would leave discretion to managers of MMF to determine the abovementioned contents and format of the reporting template.This could clearly lead to a significant lack of harmonisation in the application of the provisions of the MMF Regulation across the MMF industry on this issue.

	Indeed, uncertainty on the abovementioned requirement could lead to a situation where some Member States would adopt stricter rules than others on the choice of the abovementioned contents and format of the reporting template. For instance, some Member States could consider that only specific types of information might be included in the abovementioned reporting template. This would be particularly problematic in the context of the EU passport of the AIFMD/UCITS Directive.
Option 1	The ITS would provide a detailed list of information that should be included in the reporting template. This information is detailed in the draft reporting template included in Annex IV of this consultation paper. This option would not consider the reuse of the data submitted in the context of the AIFMD reporting template.
Option 2	The ITS would provide a list of information that should be included in the reporting template. However this option would also consider the reuse of the data submitted in the context of the AIFMD reporting template.
Preferred Option	ESMA decided to consult on option 1 and discarded option 2. The baseline scenario (application of the requirements in the Level 1 Regulation without any further specification) was also discarded. The main difference between options 1 and 2 is the extent to which the reporting template under the MMF Regulation would rely on the existing reporting template under the AIFMD. Having regard to the abovementioned similarities between the AIFMD database and the envisaged MMF one, one of the first key principles underlying the establishment of the required reporting template could indeed be to rely as much as possible on the work already done on the establishment of a reporting template in the case of the AIFMD database. This would mean, in particular, that: i) to the extent that this is possible from a legal standpoint, the same type of information should not be requested and expressed in two different ways in the two contexts of the AIFMD and MMF reporting requirements (e.g. the same types of indicators should be defined the same way); and ii) a situation when the same manager would have to provide the same information both in the AIFMD and in the MMF

	database should be avoided, to the extent that this is possible from a purely IT/technical point of view. However, there are a number of limitations to this exercise. First, the list of information to be provided by managers explicitly mentioned in the MMF Regulation differs to a large extent from the one included in the AIFMD database. Secondly, in some instances (e.g. the typology of assets) the typology of information, that is, the way the information has to be categorized, also differs as compared to the one included in the AIFMD database. Thirdly, the competent authority that will receive the reports under the MMF framework is the competent authority of the MMF (Article 37(1)) while for the same MMF (when this is an AIF) the competent authority that will receive the reports under the AIFMD framework is the competent authority of the AIFM (the manager of the MMF). In addition, the LEI, which could allow ESMA to identify the MMF(AIF) in such a situation, is not a mandatory requirement under the AIFMD reporting framework. Finally, the frequency of reporting may differ for a given MMF between the AIFMD and the MMF reporting requirements. On the one hand, it is therefore suggested to apply as strictly as possible the principle expressed above (the same type of information should not be requested and expressed in two different ways in the AIFMD and MMF reporting requirements), even though it might be in some cases necessary to depart from this principle because of the different nature of the AIFMD and MMF databases. On the other hand, given the limitations described above, it is suggested to depart from the other principle included above, so that the two AIFMD and MMF databases would be dealt with separately ESMA therefore preferred option 1. After having received input from stakeholders when answering to the ESMA CP, ESMA confirmed that its preferred option is option 1.

2.4. Guidelines on stress testing of MMF (Article 28 of the MMF Regulation)

Policy Objective	The MMF Regulation obliges each MMF to have in place sound stress testing processes that allow the identification of possible events or future changes in economic conditions

	which could have unfavourable effects on the MMF. The MMF or its manager has to assess the possible impact that those events or changes could have on the MMF. The manager of a MMF must regularly conduct stress testing for different possible scenarios, and those stress tests must be based on objective criteria and consider the effects of severe plausible scenarios. Under the requirements of the **Article 2**8 of the MMF Regulation ESMA is obliged to issue guidelines with a view to establishing common reference parameters of these stresstest scenarios taking into account a number of factors.
Baseline scenario	The baseline scenario should be understood for this CBA as the application of the requirements in the Level 1 Regulation (i.e. the provisions of Article 28 of the MMF Regulation) without any further specification. This would leave discretion to managers of MMF to determine fully the abovementioned stress test scenarios. This could clearly lead to a significant lack of harmonisation in the application of the provisions of the MMF Regulation across the MMF industry on this issue. Indeed, uncertainty on the abovementioned requirement could lead to a situation where some Member States would adopt stricter rules than others on the choice of the abovementioned stress tests. For instance, some Member States could consider that only specific level/thresholds/reference parameters of certain risk factors might be included in the abovementioned stress tests. This would be particularly problematic in the context of the EU passport of the AIFMD/UCITS Directive.
Option 1	This option is a very high level principle-based approach that would not specify any quantitative criteria nor threshold (in relation to all factors listed in Article 28(1) of the MMF Regulation);
Option 2	This option is a very prescriptive approach that specify quantitative (or detailed) criteria or thresholds for all factors listed in Article 28(1) of the MMF Regulation;
Option 3	This option is an intermediate approach that would intend to specify quantitative (or detailed) criteria or thresholds for some of the factors listed in Article 28(1) of the MMF Regulation (e.g. changes in the level of liquidity of the assets, movements of the

	interest rates and exchange rates, levels of redemption) and take a more principle-based approach for other factors.
Preferred Option	ESMA decided to consult on option 3 and discarded option 1 and option 2. The baseline scenario (application of the requirements in the Level 1 Regulation without any further specification) was also discarded. Given the level of needed prescriptiveness varies depending on the factors to be considered, ESMA's preferred option would be option 3 above. Given the feedback received from stakeholders, ESMA decided to include two different parts in the Guidelines. The first one would be principle-based approach and would not specify any quantitative criteria nor threshold (in relation to all factors listed in Article 28(1) of the MMF Regulation). These are the sections 5.1 to 5.7 of the Guidelines included in this final report. The second one would include common reference stress test scenario the results of which should be included in the reporting template mentioned in article 37(4) of the MMF Regulation (the ITS have therefore been accordingly modified). Given the feedback received from stakeholders on the different quantitative criteria and thresholds (in relation to all factors listed in Article 28(1) of the MMF Regulation), ESMA was of the view that more time is need to specify the corresponding calibrations. These would be specified when ESMA first updates the Guidelines, and in any case soon enough so that managers of MMFs receive the appropriate information on these fields to fill in the reporting template mentioned in article 37 of the MMFR. It is also to be noted that these guidelines will be updated at least every year taking into account the latest market developments, as requested in Article 28 of the MMF Regulation. While updating these guidelines, ESMA will consider whether to amend the level of granularity of the requirements on the different risk factors, and the level of complexity of the overall proposed approach.

3. Assessment of the impact of the various options

3.1. Technical advice under Art 15 of the MMF Regulation (reverse repurchase agreement)

Option 1	Qualitative description
Benefits	i) Standardise the liquidity and credit quality criteria applying to the assets mentioned in the Article 15(6) of the MMF Regulation; ii) Prevent the manager of MMF from deciding to invest in certain types of asset that could under certain circumstances jeopardize the objectives of the MMF iii) Prevent the manager of the MMF from circumventing some of the rules on liquidity requirements generally applying to assets the MMF has invested in under the MMF Regulation iv) Fully take into account the other requirements on credit quality and liquidity that already apply on a more general standpoint under the MMF Regulation
Costs	The proposed approach is unlikely to lead to significant additional costs to the extent that it provided clarifications on the Level 1 provisions and does not impose additional obligations beyond those already set by the MMF Regulation, and apart from the specification on haircuts and overcollateralization as mentioned above. ESMA sought the views of stakeholders on the costs of imposing haircuts as suggested above. The majority of stakeholders agreed with ESMA's CBA and in particular there is a large consensus around this option. According to some stakeholders this option is not going to significantly increase costs as haircuts tables are given and the determination of quality of counterparty follows a straightforward criteria. This option offers more investors' protection compared to the other option because it focuses on the central question of the quality of the counterparty and incentives the choice of regulated entities. Other stakeholders indicated that this option could be costly if this undermines the competitiveness of managers of MMF in the reverse repo market. According to one stakeholder option 1 for credit quality possibly with some limited application of the content of option 2, and option 1 for liquidity purposes, subject to reworking of the haircut requirements, are workable and could fit within the current market conventions.

Option 2	Qualitative description

Benefits	i) Standardise the credit quality criteria applying to the assets mentioned in the Article 15(6) of the MMF Regulation; ii) Prevent the manager of MMF from deciding to invest in certain types of asset that could under certain circumstances jeopardize the objectives of the MMF iii) Prevent the manager of the MMF from circumventing some of the rules on liquidity requirements generally applying to assets the MMF has invested in under the MMF Regulation iv) Fully take into account the other requirements on credit quality and liquidity that already apply on a more general standpoint under the MMF Regulation; v) allow the manager to determine the classification of the liquidity of fund portfolio investments referred to in the Article 15(6) of the MMF Regulation (which would allow the corresponding requirements to fit as much as possible to the actual situation of the MMF), while establishing procedures that would ensure that while doing so the interest of the investors of the MMF would not be jeopardized.
Costs	The proposed approach is unlikely to lead to significant additional costs to the extent that it provided clarifications on the Level 1 provisions and does not impose additional obligations beyond those already set by the MMF Regulation, and apart from the abovementioned obligation to classify assets depending on their liquidity features. ESMA sought the views of stakeholders on the costs of imposing such a procedure on the classification of assets. Stakeholders disagreed with the ESMA's CBA for option 2. Respondents believe that this option would bring operational difficulties with the daily monitoring of the criteria listed in article 2(3) with only limited benefits while offering also poor investors' protection. In the views of the majority of stakeholders, option 2 requires a constant monitoring which is more complex to implement than option 1.

3.2. Technical advice under the requirements of Article 22 of the MMF Regulation (credit quality assessment)

Option 1	Qualitative description
Benefits	i) Standardise the criteria under the Article 22 of the MMF Regulation, while not being too prescriptive to avoid any systemic risk related issues; ii) Prevent the manager of MMF from determining on his own

	the criteria that would apply in relation to the abovementioned methodologies and criteria (which could lead to uncertainty for investors and regulators, and less protection of the investors) iii) Prevent the manager of the MMF from circumventing some of the rules on liquidity requirements generally applying to assets the MMF has invested in under the MMF Regulation iv) Fully take into account the other requirements that already apply on a more general standpoint under the MMF Regulation as well as the experience of ESMA in the context of the CRA Regulation.
Costs	The proposed approach is unlikely to lead to significant additional costs to the extent that it provided clarifications on the Level 1 provisions and does not impose additional obligations beyond those already set by the MMF Regulation, and apart from the specifications on the criteria on credit risk assessment and methodologies, as mentioned above, which would imply that the manager of the MMF needs to establish internal processes that would allow him to comply with these requirements. ESMA sought the views of stakeholders on the costs of imposing such criteria as suggested above. Comments received by stakeholders generally agree with ESMA's remark that a standardised approach would lead to uniformity in behaviour, which as a consequence would lead to increase systemic risk. Respondents all agree that diversity, a key pillar of the functioning of financial markets, should be preserved as it enlarges the services offer to investors and creates different types of interest in the markets. Stakeholders praise the principles-based approach that has been adopted and comment that a too prescriptive approach would have be more costly, while the closer the options chosen are close to market practises, the less costly they will be. Only one respondent believes that a certain degree of "comparability" needs to be achieved across the market. The credit quality of an issuer is not entirely a quantitative exercise, indeed it is partly made of quantitative metrics that are information from the past but is also based on assumptions, anticipations that can be different from one analysis to another one. However, respondents disagree with the proposed approach of adopting the same requirements as those that apply for CRAs. The reason is that MMFs are not CRAs and using a CRA methodology would be inappropriate and excessive because the purpose for a MMF is to support a bespoke investment offering, whereas the CRAs have a different economic dynamic, which is to sell information to the market. According to one stakeholder, the main consequence is that additional staff resource would be needed but these respondents do not consider that IT costs or training costs would be significant. They indicate that the costs might vary significantly from manager to manager depending on the level of internal credit assessment currently performed.

3.3. ITS on the establishment of a reporting template (Art 37 of the MMF Regulation)

Option 1	Qualitative description
Benefits	i) Standardise the information that should be included in the reporting template under the Article 37 of the MMF Regulation; ii) Prevent the manager of MMF from determining on his own the information that should be included in the reporting template under the Article 37 of the MMF Regulation (which would lead to uncertainty for investors and regulators, and less protection of the investors). ESMA seeks the views of stakeholders on the costs of imposing such criteria as suggested above.
Costs to regulator and compliance costs	The costs linked to the implementation of this option seem to be limited to the costs for both regulators and managers of MMFs of setting up procedures to submit (and receive in the case of regulators) the abovementioned information. For the chosen option, one stakeholder indicated they would anticipate that there will be a significant financial burden to ensuring compliance with the obligation under the Regulation. In particular, those that will have to report for MMFs will be subject to a higher burden compared to those that will report for AIFs under the AIFMD reporting because reporting will be required on a security by security basis. Another respondent understands why ESMA wants to use the same reporting standards established under the AIFMD and in general, they welcome this approach because the implementing work is already done and the standards are well known, however the majority of EU MMFs are UCITS and not AIFs. They expect the implementation of reporting template to generate significant additional costs mainly linked to IT developments and additional human resources. These respondents indicate that the AIFMD reporting is shaped on the basis of the AIFs universe, which is much broader than the MMFs one and while the same information should not be asked twice is critically important to collect only the information that suits well for MMFs and respond to EU Regulation. According to one stakeholder the development of a new format template will be costly for asset managers that have already developed their monthly factsheet presented to their investors, therefore ESMA should draw on this work.

Option 2	Qualitative description
Benefits	i) Standardise the information that should be included in the reporting template under the Article 37 of the MMF Regulation; ii) Prevent the manager of MMF from determining on his own the

	information that should be included in the reporting template under the Article 37 of the MMF Regulation (which would lead to uncertainty for investors and regulators, and less protection of the investors); iii) Allow for a full reuse of the information already submitted in the context of the AIFMD reporting template.
Costs to regulator and compliance costs	The costs linked to the implementation of this option seem to be limited to the costs for both regulators and managers of MMFs of setting up procedures to submit (and receive in the case of regulators) the abovementioned information. As compared to the option 1, these costs would be higher for regulators since, as mentioned above, regulators would not be able to directly connect the MMF and the AIFMD databases.

3.4. Guidelines on stress testing (Art 28 of the MMF Regulation)

Option 1	Qualitative description
Benefits	The main benefits of the option proposed are to provide some high level guidance to managers of MMFs on the risk factors of the stress tests mentioned in Article 28 of the MMF Regulation, while allowing for some flexibility on the exact determination of the various reference parameters / thresholds / limits in relation to each of the risk factors, which would be done by the manager of the MMF
Costs to regulator and compliance costs	The costs associated to this option relate to the lack of harmonization of the stress tests that would result from its implementation (for regulators and for investors that would have less clarity on the exact meaning of the results of the corresponding stress tests). One stakeholder agrees with the CBA and selects this option as the preferred one. Option 1 seems to be the least expensive for MMF managers and regulators but would make comparison between stress test impossible. Stakeholders urge ESMA not to underestimate costs as MMF managers will have to make significant investing in systems and personnel in order to comply with the new requirements of the stress tests. This would lead to significant operational costs that will be both recurring and one-off. For one stakeholder costs

	have been significantly under-estimated while benefits have been over-estimated. This applies to all three options.

Option 2	Qualitative description
Benefits	The main benefits of the option proposed are to fully standardise the structure and reference parameters of the risk factors of the stress tests mentioned in Article 28 of the MMF Regulation, and therefore allow for a meaningful comparison between the results of the stress tests among the different mangers of MMFs in the EU. This would also allow the reporting template mentioned in Article 37 of the MMF Regulation to include specific fields related to the specifications of the corresponding risk factors included in the Guidelines.
Costs to regulator and compliance costs	The costs linked to the implementation of this option seem to be related on the one hand to the cost of imposing an identical detailed framework for stress tests for all MMF in the EU (in terms of systemic risk related issues), and on the other hand to the operational costs for managers of MMF to set up the corresponding internal processes. The main difficulty of option 2 is the choice of quantitative parameters, thresholds on factors to be imposed and the ones to be left at the discretion of the MMF manager. ESMA should refrain from changing the nature of the factor to be imposed as it might bear additional cost for the MMF manager who might regularly need to adapt his internal processes and controls.

Option 3	Qualitative description
Benefits	The main benefits of the option proposed are to standardise when relevant the structure and reference parameters of the risk factors of the stress tests mentioned in Article 28 of the MMF Regulation, and therefore allow when relevant for a meaningful comparison between the results of the stress tests among the different mangers of MMFs in the EU. This would also allow the reporting template mentioned in Article 37 of the MMF Regulation to include specific fields related to the specifications of the corresponding risk factors included in the Guidelines.

Costs to regulator and compliance costs	The costs linked to the implementation of this option seem to be related on the one hand to the cost of imposing an identical detailed framework for certain risk factors of the stress tests for all MMFs in the EU (in terms of systemic risk related issues), and on the other hand to the operational costs for managers of MMFs to set up the corresponding internal processes. According to stakeholders option 3 seems to offer a fair balance of costs and benefits. The costs borne by regulators will be limited by the requirements on the most sensitive criteria and professionals will not bear excessive costs related to fully standardised procedures. Flexibility will give the possibility to asset manages to adapt their procedures and master their costs. Time and expertise devoted to the definition, monitoring, oversight and update of the MMF stress test will be not only a one-off cost but will represent a significant annual cost. Respondents indicate that option 3 is less expensive than option 2 and still allows for sound comparison between the stress tests results.

4. Collection of information on the market of MMF in the EU

8. For the purpose of this CBA, ESMA collected information on the market of MMF from national competent authorities. The collected information was the following one (as of 31/12/2016):

A. Number of MMFs in your jurisdiction

B. Number of MMFs under UCITS in your jurisdiction

C. Number of MMFs under AIFMD in your jurisdiction

D. Number of MMFs under AIFMD for which the competent authority of the MMF is different from the competent authority of the AIFM

E. Number of MMFs under UCITS for which the competent authority of the MMF is different from the competent authority of the Management company

F. Aggregated NAV of the MMFs (at fund level - and not share-price / unit-price level)

9. The following responses were provided by NCAs:

Bulgaria	Hungary	Romania	Portugal	Spain	Germany	Estonia	

7	38	1	4	40	12	0	**A**
7	0	1	2	40	11	0	**B**
0	38	0	2	0	1	0	**C**
0	0	0	0	0	0	0	**D**
0	0	0	0	0	0	0	**E**
44	3 129	24	712	38 059	2 578	0	**F (M millions EUR)**

Sweden	Slovenia	Latvia	Lithuania	Italy	Austria	Denmark	
29	4	0	0	12	3	0	**A**
28	4	0	0	12	3	0	**B**
1	0	0	0	0	0	0	**C**
0	0	0	0	0	0	0	**D**
0	0	0	0	1	0	0	**E**
20 796	99	0	0	4 813	73	0	**F (Millions EUR)**

Cyprus	Greece	Belgium	France	Finland	Ireland	
0	16	8	382	9	103	**A**
0	16	8	149	9	96	**B**
0	-	0	233	0	7	**C**
0	-	0	2	0	1	**D**
0	10	0	12	0	13	**E**
0	540	1 940	395 717	1 684	478 201	**F (Millions EUR)**

Czech Republic	Malta	Iceland	The Netherlands	Slovakia	Luxembourg	Liechtenstein	
2	2	10	20	1	160	3	**A**
0	2	2	2	1	115	2	**B**
2	0	8	18	0	43	1	**C**
1	0	0	0	0	2	0	**D**
0	0	0	0	0	14	0	**E**
26	76	2	7 929	33	290 000	2 338	**F (Millions EUR)**

3.3 **Annex III**

Technical advice

Technical advice under Article 15 of the MMF Regulation

Article 1

Quantitative and qualitative credit quality requirements applicable to assets referred to in Article 15(6)(a) of the MMF Regulation

The quantitative and qualitative credit quality requirements applicable to the assets referred to in Article 15(6)(a) of the MMF Regulation are those referred to in the delegated act mentioned in Article 22(a), 22(b) and 22(c) of the MMF Regulation. These criteria are those that would be taken into account in the credit quality assessment that would lead to a '*favourable assessment*' as referred to in Article 15(6)(a) of the MMF Regulation.

Quantitative and qualitative liquidity requirements applicable to assets referred to in Article 15(6) of the MMF Regulation

Recital 1

Reverse repurchase transaction shall, when entered into, enable the MMF to implement its investment strategy and objective as per the terms of the Regulation. It implies that the counterparty risk shall be sufficiently creditworthy or that the assets received as collateral shall be of sufficient liquidity quality to allow the MMF to meet its objective and obligations, should such assets need to be liquidated.

Article 2

A manager of the MMF shall ensure that the reverse repo agreement meets established market standards and contains, in particular, provisions enabling him to fully enforce its rights in case of default or any early termination event and guaranteeing his discretion for assets received as collateral, by selling any and/or all of such assets, free of any requirements, such as prior notice or approval from the counterparty.

Article 3

If the counterparty to the reverse repurchase agreement is a credit institution under the requirements of the directive 2013/36 (on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms,), an investment firm under the requirements of the directive 2014/65 (on markets in financial instruments)or an insurance undertaking under the requirements of the directive 2009/138 (on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II)) or such entities under a regulation deemed equivalent under the relevant abovementioned directives, or a regulated central counterparty, or the ECB, or one of the Member States' central banks, or one of the non-EU central banks deemed equivalent under the requirements of the implementing acts under the Article 114 of CRR, that ensures appropriate matching of assets and liabilities, there shall not be further quantitative and qualitative liquidity requirements as mentioned in Article 15(7) of the MMF Regulation.

Article 4

1. If the counterparty to the reverse repurchase agreement is not one of the entities referred to in Article 3, and in order to ensure adequate collateralization of the reverse repurchase agreement, additional liquidity requirements shall apply depending on factors such as:

- Credit quality assessment of the counterparty to the reverse repurchase agreement;
- Margin period of risk, as referred to in article 272(9) of the Regulation 575/2013;
- Credit quality assessment of issuer or instrument composing the collateral;
- time to maturity of the assets;
- volatility of the price of the assets;

2. Depending on the abovementioned factors, corresponding haircut shall apply to the assets referred to in Article 15(6) of the MMF Regulation. Such haircut shall be based, as a minimum on the corresponding standards in terms of residual maturity and 5-day liquidation period, with respect to the highest assessment in term of credit quality, as detailed in article 224 of regulation 575/2013, as revised and supplemented on a regular basis. The volatility adjustments figures referred to in this article 224 are the standards of haircuts mentioned above.

3. Managers of MMF shall therefore have in place a clear haircut policy adapted for each asset mentioned in article 15(6) of the MMF Regulation received as collateral. This policy should be documented and should justify each decision to apply a specific haircut to a certain asset.

4. Such haircut shall be revised on a regular basis depending in particular on the revision of the abovementioned standards.

Technical advice under Article 22 of the MMF Regulation

Technical advice under Article 22(a) of the MMF Regulation

Article 1

Ensuring that the credit quality assessment methodology is subject to validation

1. The internal credit quality assessment procedure of an MMF shall be based on prudent, systematic and continuous assessment methodologies. These methodologies shall be subject to validation by the manager of an MMF on the basis of historical experience and empirical evidence, including back testing.

2. The criteria for the validation of the credit quality assessment methodology shall be designed to ensure:

   (a) The credit quality assessment methodology has been applied in a systematic way over time across different issuers and instruments;

   (b) The credit quality assessment methodology is supported by a sufficient number of relevant qualitative and quantitative criteria;

   (c) The credit quality assessment methodology's qualitative and quantitative inputs are of a reliable nature, using data samples of appropriate size;

   (d) The manager of the MMF conducts an appropriate assessment of historic credit quality assessments produced by that credit quality assessment methodology with a view to determining whether the credit quality assessment methodology is a sensible indicator of credit quality;

3. As part of the validation process, the manager of an MMF shall assess the sensitivity of the methodology to changes in any of its underlying credit quality assumptions and criteria.

4. The manager of an MMF shall have processes in place to ensure that any anomalies or deficiencies highlighted by back testing are identified and appropriately addressed.

Article 2

Ensuring that the credit quality assessment methodology is prudent

1. The manager of a MMF shall use and apply credit quality assessment methodologies which:

   (a) Contain controls and processes for their development and related approvals that allow for suitable challenge;

   (b) Incorporate factors deemed relevant to determining the credit quality of an issuer or an instrument;

   (c) Incorporate procedures to ensure the quantitative and qualitative criteria supporting the relevant factors in a credit quality assessment methodology are of a reliable quality and relevant to the issuer or instrument being assessed.

Article 3

Ensuring that the credit quality assessment methodology is systematic

1. The manager of a MMF shall use a credit quality assessment that systematically applies key credit quality assumptions and supporting criteria in the formulation of all credit quality assessments, unless there is an objective reason for diverging from it.

2. The manager of a MMF shall use a credit quality assessment methodology which is capable of promptly incorporating the findings from any review of its appropriateness, including validation.

3. The manager of a MMF shall use an appropriate credit quality assessment methodology which ex-ante defines the situations where the assessment is deemed to be favourable.

Article 4
Ensuring that the credit quality assessment methodology is continuous

1. The manager of a MMF shall use a credit quality assessment methodology that is designed and implemented in such a way as to ensure it can:

   (a) Continue to be used unless there is an objective reason for the credit quality assessment methodology to change or be discontinued;

   (b) Be capable of promptly incorporating any finding from ongoing monitoring or a review, in particular where changes in structural macroeconomic or financial market conditions would be capable of affecting a credit assessment produced by that credit quality assessment methodology;

(c) Allow for the comparison between historic credit quality assessments.

Technical advice under Article 22(b) 22(c) and 22(d) of the MMF Regulation

Article 1

Criteria for the quantification of the credit risk of the issuer and the relative risk of default of the issuer and of the instrument referred to in point (a) of Article 20(2)

1. In order to quantify the credit risk of an issuer and the relative risk of default of an issuer and of an instrument, the credit quality assessment methodology of the Manager of an MMF should refer to relevant quantitative criteria such as:

   (a) Bond pricing information, including credit spreads and pricing of comparable fixed income instruments and related securities;

   (b) Pricing of money market instruments relevant to the issuer, instrument or industry sector;

   (c) Credit default-swap pricing information, including credit default-swap spreads for comparable instruments;

   (d) Default statistics relating to the issuer, instrument, or industry sector;

   (e) Financial indices relevant to the geographic location, industry sector or asset class of the issuer or instrument;

   (f) Financial information relating to the issuer, including profitability ratios, interest coverage leverage metrics, pricing of new issues including the existence of more junior securities;

Article 2
Criteria for establishing qualitative indicators on the issuer of the instrument, as referred to in Article 20(2)(b) of the MMF Regulation;

1. In order to establish qualitative indicators on the issuer of an instrument, the credit quality assessment methodology of the manager of an MMF should refer to relevant qualitative criteria such as:

   (a) Analysis of any underlying assets, for exposures to securitisation this should include the credit risk of the issuer and credit risk of the underlying assets;

   (b) Analysis of any structural aspects of the relevant instruments issued by an issuer, for structured finance instruments this should also include analysis of the inherent operational and counterparty risk of the structured finance instrument;

(c) Analysis of the relevant market(s), including the degree of volume and liquidity;

(d) Sovereign analysis, including the extent of explicit and contingent liabilities and size of foreign exchange reserves vs foreign exchange liabilities;

(e) Analysis of governance risk relating to the issuer including frauds, conduct fines, litigation, financial restatements, exceptional items, management turnover, borrower concentration, audit quality.

(f) Securities-related research relating to the issuer or market sector;

(g) If relevant, analysis of the credit ratings[5] or rating outlooks[6] assigned to the issuer of an instrument; by a credit rating agency registered with ESMA and selected by the manager of an MMF if suited to the specific investment portfolio of the MMF.

Article 3

Aspects of an Issuer of an Instrument to be assessed

1. In referring to quantitative and qualitative credit risk criteria for an issuer of an instrument, the credit quality assessment methodology should assess, to the extent possible, the following:

(a) Financial condition of the issuer, or the guarantor where applicable;

(b) Sources of liquidity of the issuer, or the guarantor where applicable;

(c) Ability of the issuer to react to future market-wide or issuer specific events including ability to repay debt in a highly adverse situation;

(d) Strength of the issuer's industry within the economy relative to economic trends and the issuer's competitive positon in its industry.

Article 4

Overrides

1. The manager of an MMF may refer to human judgement to override the output of a credit quality assessment methodology only in exceptional circumstances such as stressed market conditions, and where there is an objective reason for doing so. Where the manager

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5 Regulation 1060/2009 Article 3(a) 'credit rating' means an opinion regarding the creditworthiness of an entity, a debt or financial obligation, debt security, preferred share or other financial instrument, or of an issuer of such a debt or financial obligation, debt security, preferred share or other financial instrument, issued using an established and defined ranking system of rating categories'

6 Regulation 1060/2009 Article 3(w) 'rating outlook means an opinion regarding the likely direction of a credit rating over the short term, the medium term or both'.

of an MMF refers to human judgement to override the output of a credit assessment methodology this shall be documented.

2. As part of the documenting process, the manager of the MMF should specify the person responsible for the decision as well as the objective reason for which credit quality assessment was overridden.

Article 5
Material change

1.The manager of a MMF shall undertake a new credit quality assessment whenever there is a material change that could have an impact on the existing assessment of the instrument.

2. The material change that could have an impact on the existing assessment of the instrument may relate to the criteria that the manager of the MMF takes into account in its credit quality assessement methodology including those which are referred to in Articles 1 to 3, such as:

- Bond pricing information, including credit spreads and pricing of comparable fixed income instruments and related securities;
- Credit default-swap pricing information, including credit default-swap spreads for comparable instruments;
- Default statistics relating to the issuer or instrument;
- Financial indices relevant to the geographic location, industry sector or asset class of the issuer or instrument;
- Analysis of underlying assets (particularly for structured finance instruments);
- Analysis of the relevant market(s), including the degree of volume and liquidity;
- Analysis of the structural aspects of the relevant instruments;
- Securities-related research;
- Financial condition of the issuer;
- Sources of liquidity of the issuer;
- Ability of the issuer to react to future market-wide or issuer specific events including ability to repay debt in a highly adverse situation;
- Strength of the issuer's industry within the economy relative to economic trends and the issuer's competitive positon in its industry;

- Analysis of the credit ratings[7] or rating outlooks[8] assigned to the issuer or instrument by such credit rating agency/ies selected by the manager of the MMF as suited to the specific investment portfolio of the MMF.

3. What should be meant by 'material change' for these different criteria should relate in particular, for the relevant quantitative or qualitative different criteria, to the the risk factors of the stress test scenarios, including those referred to in Article 28 of the MMF Regulation.

4. With respect to the criterion on the analysis of the credit ratings or rating outlooks assigned to the issuer or instrument, this material change should also relate to the downgrade of a money market instrument, securitisation or ABCP below the two highest short-term credit ratings provided by any credit rating agency regulated and certified in accordance with Regulation (EC) No 1060/2009 of the European Parliament and of the Council[9]. In that case, the manager of a MMF should be able to establish an internal procedure for the selection of credit rating agencies suited to the specific investment portfolio of the MMF and for determining the frequency at which the MMF should monitor the ratings of those agencies. However the extent to which the corresponding new assessment mentioned in paragraph 1 would imply that the assessment in itself of the credit quality of the asset is modified will depend on the other abovementioned criteria that the manager of the MMF takes into account in its credit quality assessement methodology. The abovementioned downgrading should indeed be balanced against these other abovementioned criteria that the manager of the MMF takes into account in its credit quality assessement methodology.

5. The material change that could have an impact on the existing assessment of the instrument may also relate to the revision of the credit quality assessment methodology.

7 *Regulation 1060/2009 Article 3(a) 'credit rating' means an opinion regarding the creditworthiness of an entity, a debt or financial obligation, debt security, preferred share or other financial instrument, or of an issuer of such a debt or financial obligation, debt security, preferred share or other financial instrument, issued using an established and defined ranking system of rating categories'*

[8] *Regulation 1060/2009 Article 3(w) 'rating outlook means an opinion regarding the likely direction of a credit rating over the short term, the medium term or both'.*

[9] Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies (OJ L 302, 17.11.2009, p. 1).

Draft implementing technical standards under Article 37 of the MMF Regulation

COMMISSION IMPLEMENTING REGULATION (EU) …/...

of XXX

laying down implementing technical standards with regard to the templates for managers of money market funds to report to competent authorities in accordance with Regulation (EU) 2017/1131 of the European Parliament and of the Council

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2017/1131 of the European Parliament and of the Council on money market funds[10], and in particular Article 37(4) thereof,

Whereas:

(1) In addition to reporting already required under Directives 2009/65/EC[11] and 2011/61/EU[12], it is necessary to ensure that competent authorities are able to detect, monitor and respond to risks in the MMF market. MMFs should therefore report to their competent authorities a detailed list of information on the MMF, including the type and characteristics of the MMF, the results of stress tests, portfolio indicators and information on the assets held in the portfolio and on the liabilities of the MMF. Competent authorities should collect these data in a consistent way throughout the Union in order to obtain a substantive knowledge of the main evolutions of the MMF market. In order to facilitate a collective analysis of potential impacts of the MMF market in the Union, such data should be transmitted to the European Securities and Markets Authority (ESMA) who should create a central database for MMFs.

(2) In order to facilitate the implementation of the procedures and processes related to these reporting requirements and to minimise the associated costs, the information should be provided using standard forms and templates. It is therefore appropriate to

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[10] *OJ L 30.06..2017, p.169/40.*

[11] Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)

[12] *Directive 2011/61/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*

set out a common reporting template for submitting all the information listed in paragraphs 2 and 3 of Article 37 of Regulation 2017/1131/EC to competent authorities by managers of MMFs and to the European Securities and Markets Authority (ESMA) by competent authorities.

(3) This Regulation is based on the draft implementing technical standards submitted by ESMA to the Commission.

(4) ESMA has conducted an open public consultation on the draft implementing technical standards on which this Regulation is based, analysed the potential related costs and benefits, and requested the opinion of the Securities and Markets Stakeholder Group established by Article 37 of Regulation (EU) No 1095/2010 of the European Parliament and of the Council[13],

HAS ADOPTED THIS REGULATION:

Article 1

The manager of a MMF shall use the template set out in the Annex to this Regulation when it reports to its competent authority or the competent authority of each MMF that it manages in accordance with Article 37(1) of Regulation (EU) 2017/1131.

Article 2

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from XX YYY 2017.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the Commission
The President
Jean-Claude Juncker

[13] *Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).*

ANNEX

Reporting template – Annex to the ITS

Except where otherwise specified, all figures shall be filled in at sub fund level

Item		**Data type**	**Reported data**
(A) Applicable to all MMFs			
	(1) General characteristics, identification of the manager of the MMF and the MMF		
	(A.1.1)	Reporting period	
	(A.1.2)	National code of the MMF as provided by the competent Authority that supervises the MMF	
	(A.1.3)	LEI of the MMF	ISO 17442 Legal Entity Identifier 20 alphanumerical character code (LEI)
	(A.1.4)	ECB code (MFI ID code) of the MMF	
	(A.1.5)	Name of the MMF	
	(A.1.6)	Indicate if the MMF is a UCITS or an AIF	UCITS AIF
	(A.1.7)	Indicate if the MMF is marketed solely through employee saving schemes governed by national law and which has natural persons as investors (under Art 16(5) of the MMF Regulation[14])	(Yes/No)

[14] *Regulation (EU) 2017/1131 on money market funds*

Item		Data type	Reported data
(A) Applicable to all MMFs			
	(A.1.8)	Domicile of the MMF	ISO 3166 — Country code
	(A.1.9)	Member State where the MMF is authorised	ISO 3166 — Country code
	(A.1.10)	Member States where the MMF is marketed	List of Countries (ISO 3166 — Country code)
	(A.1.11)	Inception date of the MMF	ISO 8601 date in the format YYYY-MM-DD
	(A.1.12)	Base currency of the MMF	ISO 4217 Currency Code, 3 alphabetical characters
	(A.1.13)	National code of the manager of the MMF as provided by the competent Authority that supervises the MMF	
	(A.1.14)	National code of the manager of the MMF as provided by the competent Authority that supervises the manager of the MMF	
	(A.1.15)	LEI of the manager of the MMF	ISO 17442 LEI 20 alphanumerical character code
	(A.1.16)	ECB code (MFI ID code) of the manager of the MMF	
	(A.1.17)	Name of the manager of the MMF	
	(A.1.18)	Country where this manager is authorized	
	(A.1.19)	LEI of the depositary of the MMF	ISO 17442 LEI 20 alphanumerical character code
	(A.1.20)	National code of the depositary of the MMF	

Item		Data type	Reported data
(A) Applicable to all MMFs			
	(A.1.21)	Legal name of the depositary of the MMF	
(2) Type of the MMF			
	(A.2.1)	MMF type [Select one]	Short-term VNAV MMF Short-term Public debt CNAV MMF Short-term LVNAV MMF Standard VNAV MMF
(3) Other characteristics of the MMF			
	a) Master / feeder information (MMF marketed solely through employee savings scheme governed by national law and which has natural persons as investors)		
	(A.3.1)	If the MMF complies with the requirements of Article 16(5) of the MMF Regulation, indicate whether the MMF is a master or a feeder fund [Select one]	Master Feeder
		If the MMF is a feeder:	
	(A.3.2)	LEI of the master of the MMF	ISO 17442 LEI 20 alphanumerical character code
	(A.3.3)	National code of the master of the MMF	
	(A.3.4)	Legal name of the master of the MMF	
	b) Information on share classes		

Item		Data type	Reported data
(A) Applicable to all MMFs			
	(A.3.5)	Indicate whether the MMF has share classes	(Yes/No)
	(A.3.6)	Where the MMF has share classes, state the single ISIN of the different share classes	ISO 6166 ISIN 12 character alphanumerical code
	(A.3.7)	Where the MMF has share classes, state the currency of the different share classes	ISO4217 Currency Code, alphabetical characters
	c) Information on preceding fund or liquidation (one-off reporting)		
	If the MMF has been merged with another fund, please indicate:		
	(A.3.8)	Date of merger.	ISO 8601 date in the format YYYY-MM-DD
	if the MMF is being liquidated, please indicate:		
	(A.3.9)	Date of liquidation.	ISO 8601 date in the format YYYY-MM-DD

Item	Data type	Reported data
(A) Applicable to all MMFs		
(4) Portfolio indicators of the MMF		
a) Total value of assets (for the purpose of the reporting template under the MMFR, it is considered that the total value of assets equals the NAV – please see below field A.4.1)		
b) NAV (subfund level – not share class)		
(A.4.1)	Net asset value of the MMF (subfund level)	(EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
(A.4.2)	Net asset value of the MMF	(in base currency)
c) WAM		
(A.4.3)	Weighted Average Maturity of the MMF calculated as set out in Article 2(19) of the MMF Regulation.	(days)
d) WAL		

Item	Data type	Reported data
(A) Applicable to all MMFs		
(4) Portfolio indicators of the MMF		
(A.4.4)	Weighted Average Life of the MMF calculated as set out in Article 2(20), 24(1)(b), 25(1)(b) and recital 37 of the MMF Regulation.	(days)

e) Liquidity indicators

Portfolio Liquidity Profile

(A.4.5)	% of assets qualifying for the daily liquidity buffer (daily maturing assets as defined under Articles 24 and following of the MMF Regulation)	%
(A.4.6)	% of assets qualifying for the weekly liquidity buffer (weekly maturing assets as defined under Articles 24 and following of the MMF Regulation)	%
(A.4.7)	Portfolio liquidity profile	Percentage of portfolio capable of being liquidated that fall within each period

Period	1 day or less	1 - 7 days	8-30 days	above 30 days

f) Yield

Item		Data type	Reported data
(A) Applicable to all MMFs			
(4) Portfolio indicators of the MMF			
	(A.4.8)	Cumulative returns	%
Range	YTD ☐ 1 month ☐ 3 months ☐ 1 year ☐ 3 years ☐ 5 years ☐		
	(A.4.9)	Calendar year performance (net return) of the most representative share class	%
Range	Year N-1 ☐ Year N-2 ☐ Year N-3 ☐		
	(A.4.10)	Monthly portfolio volatility and Monthly portfolio volatility of the shadow NAV (when applicable)	%
Range	1 year ☐ 2 years ☐ 3 years ☐		

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(5) Stress tests of the MMF			
	a) Results of the stress tests of the MMF		
	(A.5.1)	Results of the liquidity stress tests of the MMF conducted within the reporting period as set out in Art 28(1) of the MMF Regulation and the corresponding ESMA guidelines on stress tests scenarios	
	(A.5.2)	Results of the credit stress tests of the MMF conducted within the reporting period as set out in Art 28(1) of the MMF Regulation and the corresponding ESMA guidelines on stress tests scenarios	
	(A.5.3)	Results of the FX rate stress tests of the MMF conducted within the reporting period as set out in Art 28(1) of the MMF Regulation and the corresponding ESMA guidelines on stress tests scenarios	
	(A.5.4)	Results of the Interest rate stress tests of the MMF conducted within the reporting period as set out in Art 28(1) of the MMF Regulation and the corresponding ESMA guidelines on stress tests scenarios	
	(A.5.5)	Results of stress test on the level of redemption of the MMF conducted within the reporting period as set out in Art 28(1) of the MMF Regulation and the corresponding ESMA guidelines on stress tests scenarios	
	(A.5.6)	Results of stress test of the MMF on the spread among indices to which interest rate of portfolio securities are tied conducted within the reporting period as set out in Art 28(1) of the MMF Regulation and the corresponding ESMA guidelines on stress tests scenarios	

(A.5.7)	Results of the macro stress test of the MMF conducted within the reporting period as set out in Art 28(1) of the MMF Regulation and the corresponding ESMA guidelines on stress tests scenarios	
(A.5.8)	Results of the multivariate stress test of the MMF conducted within the reporting period as set out in Art 28(1) of the MMF Regulation and the corresponding ESMA guidelines on stress tests scenarios	
(A.5.9)	In the case of CNAV and LVNAV MMFs, indicate the results of the stress tests mentioned in the previous fields in terms of difference between the constant NAV per unit or share and the NAV per unit or share	
b) Proposed action plan (where applicable)		
(A.5.10)	Indicate the proposed action plan as set out in Art 28(4) of the MMF Regulation	Free text

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			

a) Money market instruments, eligible securitisations and asset backed commercial paper

The below fields A.6 shall be completed using a line-by-line reporting template

(A.6.1)	Type of the Money market instrument, eligible securitisations and asset backed commercial paper [Select one or several]	
	Indicate the type of money market instruments, eligible securitisations and asset backed commercial paper	Money market instruments under Article 10 of the MMF Regulation Securitisations referred to in Article 13 of Commission Delegated Regulation (EU) No 2015/61 ABCP as referred to in Art 11(1)(b) of the MMF Regulation A simple, transparent and standardised securitisation or ABCP as referred to in Art 11(1)(c) of the MMF Regulation
	If the type of asset is a money market instrument, complete the fields A.6.2 to A.6.20	
(A.6.2)	Asset description of the money market instrument	
(A.6.3)	ISIN of the money market instrument	ISO 6166 ISIN 12 character alphanumerical code
(A.6.4)	CFI (if available, and if the ISIN is not available) of the money market instrument	ISO 10692 CFI, 6 characters alphabetical code

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.5)	LEI of the issuer	ISO 17442 LEI 20 alphanumerical character code
	(A.6.6)	Name of the issuer	
	(A.6.7)	Issuer category The issuer categories shall be selected among the corresponding ones [Select one]	Sovereign (EU) Sovereign (non-EU) EU Central Bank Non EU Central Bank Regional Local National Public body EU Public body (except National Public body) Non EU Public body Supranational Public body (EU) Supranational Public body (other than EU) Credit institution Other financial corporations Non-financial corporations
	(A.6.8)	Country of the issuer of the money market instrument	ISO 3166 — Country code
	(A.6.9)	Maturity date of the money market instrument	ISO 8601 date in the format YYYY-MM-DD
	(A.6.10)	Currency of the money market instrument	(ISO 4217 Currency Code, 3 alphabetical characters)
	(A.6.11)	Quantity of the money market instrument	

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.12)	Clean price of the money market instrument	(in EUR) (if the base currency is not EUR the exchange ratio used shall the ECB one)
	(A.6.13)	Clean Price of the money market instrument	(in base currency)
	(A.6.14)	Accrued interests	
	(A.6.15)	Accrued interests	(in base currency, if A.6.14 is in EUR)
	(A.6.16)	Total market value of the money market instrument	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.17)	Total market value of the money market instrument	(in base currency)
	(A.6.18)	Method used to price the money market instrument	mark to market mark-to-model amortised cost
	(A.6.19)	Indicate whether the outcome of the internal credit assessment procedure is favourable or unfavourable	(favourable/unfavourable)
	(A.6.20)	Provide the next interest rate reset date (as mentioned in Art 10(2) of the MMF Regulation)	ISO 8601 date in the format YYYY-MM-DD
		If the type of asset is an eligible securitisation or asset backed commercial paper, complete the fields A.6.21 to A.6.37	
	(A.6.21)	Asset description of the eligible securitisation or asset backed commercial paper	

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.22)	ISIN of the eligible securitisation or asset backed commercial paper	ISO 6166 ISIN 12 character alphanumerical code
	(A.6.23)	Country of the sponsor of the eligible securitisations and asset backed commercial paper	ISO 3166 — Country code
	(A.6.24)	LEI of the sponsor	ISO 17442 LEI 20 alphanumerical character code
	(A.6.25)	Name of the sponsor	
	(A.6.26)	The type of underlying	Trade receivables Consumer loans Leasing Credit card receivables Loans to corporates or SME Residential Mortgage Commercial Mortgage Other assets
	(A.6.27)	Maturity date	ISO 8601 date in the format YYYY-MM-DD
	(A.6.28)	Currency	(ISO 4217 Currency Code, 3 alphabetical characters)
	(A.6.29)	Quantity	
	(A.6.30)	Clean price	(in EUR) (if the base currency is not EUR the exchange ratio used shall the ECB one)

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.31)	Clean Price	(in base currency)
	(A.6.32)	Accrued interests	
	(A.6.33)	Accrued interests	(in base currency, if A.6.30 is in EUR)
	(A.6.34)	Total market value	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.35)	Total market value	(in base currency)
	(A.6.36)	Method used to price the eligible securitisations or asset backed commercial paper	mark to market mark-to-model amortised cost
	(A.6.37)	Whether the outcome of the internal credit assessment procedure is favourable/unfavourable	(favourable/unfavourable)

b) Other assets

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.38)	Type of the Other assets [Select one] The types of other assets shall be selected among the following ones (please see Art 9 of the MMF Regulation)	Deposits with credit institutions as referred to in Article 12 of the MMF Regulation Reverse repurchase agreements as referred to in Article 15 of the MMF Regulation Repurchase agreements as referred to in Article 14 of the MMF Regulation Units or shares of other MMFs as referred to in Article 16 of the MMF Regulation Financial derivative instruments as referred to in Article 13 of the MMF Regulation Of which Financial derivative instruments dealt in on a regulated market (and specify if it falls under Article 50(1)(a), (b) or (c) of Directive 2009/65/EC) Financial derivative instruments dealt OTC Ancillary liquid assets (in accordance with Article 50(2) of Directive 2009/65/EC)
		If the type of other asset is a financial derivative instrument, complete the fields A.6.39 to A.6.60	
	(A.6.39)	Contract type of derivative contract	
	(A.6.40)	ISIN of the financial derivative instrument	ISO 6166 ISIN 12 character alphanumerical code
	(A.6.41)	UPI of the financial derivative instrument (if the ISIN is not available)	
	(A.6.42)	FSIN (Financial Instrument Short Name) of the financial derivative instrument	ISO 18774

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.43)	CFI code (if available and if the ISIN is not available) of the financial derivative instrument	ISO 10692 CFI, 6 characters alphabetical code
	(A.6.44)	Type of derivative instrument under Article 13(a) of the MMF Regulation [select one]	interest rate currencies indices of interest rates indices of currencies
	(A.6.45)	Name of the underlying	
	(A.6.46)	Underlying identification type[15]	I = ISIN X = Index
	(A.6.47)	Underlying identification	For underlying identification type I: ISO 6166 ISIN 12 character alphanumerical code For underlying identification type X: ISO 6166 ISIN 12 character alphanumerical code if available, otherwise full name of the index as assigned by the index provider
	(A.6.48)	Notional currency 1[16]	ISO 4217 Currency Code
	(A.6.49)	Notional currency 2[17]	ISO 4217 Currency Code
	(A.6.50)	Country of the financial derivative instrument	ISO 3166 — Country code

[15] Financial derivative identification in EMIR

[16] *The currency of the notional amount. In the case of an interest rate derivative contract, this will be the notional currency of leg 1.*

[17] *The currency of the notional amount. In the case of an interest rate derivative contract, this will be the notional currency of leg 2.*

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.51)	Maturity date of the financial derivative instrument	ISO 8601 date in the format YYYY-MM-DD
	(A.6.52)	Exposure of the financial derivative instrument	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.53)	Exposure of the financial derivative instrument	(in base currency)
	(A.6.54)	Market value of the financial derivative instrument	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.55)	Market value of the financial derivative instrument	(in base currency)
	(A.6.56)	Market value of the collateral received (in relation to the financial derivative instrument)	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.57)	Market value of the collateral received (in relation to the financial derivative instrument)	(in base currency)
	(A.6.58)	Provide the next interest rate reset date (as mentioned in Art 10(2) of the MMF Regulation)	ISO 8601 date in the format YYYY-MM-DD
	(A.6.59)	Name of the Counterparty	
	(A.6.60)	LEI of the Counterparty	ISO 17442 LEI 20 alphanumerical character code

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
		If the type of other asset is a unit or share of other MMF, complete the fields A.6.61 to A.6.71	
	(A.6.61)	Asset description of the unit or share of other MMF	
	(A.6.62)	ISIN of the unit or share of other MMF	ISO 6166 ISIN 12 character alphanumerical code
	(A.6.63)	LEI (if the ISIN is not available) of the unit or share of other MMF	
	(A.6.64)	CFI code (if available and if the ISIN is not available) of the unit or share of other MMF	ISO 10692 CFI, 6 characters alphabetical code
	(A.6.65)	Currency	(ISO 4217 Currency Code, 3 alphabetical characters)
	(A.6.66)	Country of the unit or share of other MMF	ISO 3166 — Country code
	(A.6.67)	Market value of the unit or share of other MMF	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.68)	Market value of unit or share of other MMF	(in base currency)
	(A.6.69)	Quantity	
	(A.6.70)	Price of the unit or share of other MMF (NAV per unit or share of other MMF)	(in EUR) (if the base currency is not EUR the exchange ratio used shall the ECB one)
	(A.6.71)	Price of the unit or share of other MMF (NAV per unit or share of other MMF)	(in base currency)

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
		If the type of other asset is a deposit or ancillary liquid assets, complete the fields A.6.72 to A.6.81	
	(A.6.72)	Asset description of the deposit or ancillary liquid assets	
	(A.6.73)	ISIN of the deposit or ancillary liquid assets	ISO 6166 ISIN 12 character alphanumerical code
	(A.6.74)	CFI (if available and if the ISIN is not available) of the deposit or ancillary liquid assets	ISO 10692 CFI, 6 characters alphabetical code
	(A.6.75)	Country of the deposit or ancillary liquid assets	ISO 3166 — Country code
	(A.6.76)	Name of the counterparty	
	(A.6.77)	LEI of the counterparty	ISO 17442 LEI 20 alphanumerical character code
	(A.6.78)	Maturity date of the deposit or ancillary liquid assets	ISO 8601 date in the format YYYY-MM-DD
	(A.6.79)	Currency	(ISO 4217 Currency Code, 3 alphabetical characters)
	(A.6.80)	Exposure of the deposit or ancillary liquid assets	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.81)	Exposure of the deposit or ancillary liquid assets	(in base currency)
		If the type of other asset is a repurchase agreement or a reverse repurchase agreement assets, complete the fields A.6.82 to A.6.99	

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.82)	Asset description of the repurchase agreement or a reverse repurchase agreement	
	(A.6.83)	ISIN of the repurchase agreement or a reverse repurchase agreement	ISO 6166 ISIN 12 character alphanumerical code
	(A.6.84)	CFI (if available and if the ISIN is not available) of the repurchase agreement or a reverse repurchase agreement	ISO 10692 CFI, 6 characters alphabetical code
	(A.6.85)	Country of the repurchase agreement or a reverse repurchase agreement	ISO 3166 — Country code
	(A.6.86)	Counterparty category The counterparty categories shall be selected among the following ones (please see Art 20(2)(e) of the MMF Regulation) [Select one]	Sovereign (EU) Sovereign (non-EU) EU Central Bank Non EU Central Bank Regional Local National Public body EU Public body (except National Public body) Non-EU Public body Supranational Public body (EU) Supranational Public body (other than EU) Credit institution Other financial corporations Non-financial corporations
	(A.6.87)	LEI of the counterparty	ISO 17442 LEI 20 alphanumerical character code
	(A.6.88)	Name of the counterparty	
	(A.6.89)	Maturity date of the repurchase agreement or a reverse repurchase agreement	ISO 8601 date in the format YYYY-MM-DD

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.90)	Currency	(ISO 4217 Currency Code, 3 alphabetical characters)
	(A.6.91)	Exposure of the repurchase agreement or a reverse repurchase agreement (in the case of reverse repurchase agreement, this is the amount of cash provided to the counterparty)	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.92)	Exposure of the repurchase agreement or a reverse repurchase agreement (in the case of reverse repurchase agreement, this is the amount of cash provided to the counterparty)	(in base currency)
	(A.6.93)	Market value of the collateral received (in relation to the repurchase agreement or a reverse repurchase agreement) (the amount of cash received by the MMF as part of repurchase agreements (as mentioned in Art 14(d) of the MMF Regulation)	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.94)	Market value of the collateral received (in relation to the repurchase agreement or a reverse repurchase agreement) (the amount of cash received by the MMF as part of repurchase agreements (as mentioned in Art 14(d) of the MMF Regulation)	(in base currency)

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(6) Information on the assets held in the portfolio of the MMF			
	(A.6.95)	Whether the outcome of the internal credit assessment procedure is favourable/unfavourable (for the different liquid transferable securities or (other) money market instruments received as part of a reverse repurchase agreement mentioned in Art 15(6) of the MMF Regulation)[18]	(favourable/unfavourable)
	In the context of the reverse repurchase agreements and assets defined in Article 15 of the MMF Regulation that were received by the MMF, please indicate:		
	(A.6.96)	ISIN of these different assets	ISO 6166 ISIN 12 character alphanumerical code
	(A.6.97)	Market value of these different assets	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
	(A.6.98)	Market value of these different assets	(in base currency)
	(A.6.99)	In the context of the reverse repurchase agreements, whether there are any assets as defined in Article 15(6) of the MMF Regulation that were received by the MMF	(Yes/No)

[18] *If the MMF receives as collateral different assets within the meaning of Article 15(6) of the MMF Regulation, the outcome should be reported for each asset.*

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(7) Information on the liabilities of the MMF			
	<u>a) information on the investors – investor concentration</u>		
	(A.7.1)	Specify the approximate percentage of the MMF's equity that is beneficially owned by the five beneficial owners that have the largest equity interest in the MMF, as a percentage of NAV of the MMF. Look-through to the ultimate beneficial owners where known or possible	% (of NAV)
	<u>b) information on the investors – breakdown of investor concentration</u>		
	(A.7.2)	Specify the breakdown of investor concentration by status of investors (estimate if no precise information available): 1) Professional clients (as defined in Directive 2014/65/UE (MiFID 2) Retail investors (as defined in Directive 2014/65/UE (MiFID 2)	
		- Professional clients (as defined in Directive 2014/65/UE (MiFID 2)	% (of NAV)
		- Retail investors (as defined in Directive 2014/65/UE (MiFID 2)	% (of NAV)
-	**<u>c) information on the investors – geographical breakdown</u>**		

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(7) Information on the liabilities of the MMF			
	(A.7.3)	Provide the breakdown of the ownership of units / shares in the MMF by investor group. Look-through to the ultimate beneficial owners where known or possible.	(% of NAV) Non-financial corporations Banks Insurance corporations Other financial institutions Pension plans / funds General government Other collective investment undertakings Households Unknown
	(A.7.4)	Specify the geographical breakdown of investors by country (estimate if no precise information available)	
		Country	(% of NAV, Country - ISO 3166 — 2 character)

d) Information on investors - subscription and redemption activity

Investor redemptions

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(7) Information on the liabilities of the MMF			
	(A.7.5)	State the frequency of investor redemptions. If multiple classes of shares or units, report for the largest share or unit class by NAV. [Select one]	Daily Weekly Monthly Bimonthly Other No redemption rights
	(A.7.6)	What is the notice period required by investors for redemptions in days	Days
	(A.7.7)	As at the reporting date, what percentage of the MMFs NAV is subject to the following arrangements :	
		Gates	% of NAV
		Suspension of dealing	% of NAV
		Liquidity fees	% of NAV
		Other arrangements for managing illiquid assets	Type of arrangement
			% of NAV
	(A.7.8)	Net Asset Value of the MMF over the reporting period	(in EUR, including the impact of subscriptions and redemptions) (at the last day of the month)
		January	
		February	

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(7) Information on the liabilities of the MMF			
		March	
		April	
		May	
		June	
		July	
		August	
		September	
		October	
		November	
		December	
	(A.7.9)	Subscriptions over the reporting period	(in EUR)
		January	
		February	
		March	
		April	
		May	
		June	
		July	
		August	
		September	

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(7) Information on the liabilities of the MMF			
		October	
		November	
		December	
	(A.7.10)	Redemptions over the reported period	(in EUR)
		January	
		February	
		March	
		April	
		May	
		June	
		July	
		August	
		September	
		October	
		November	

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(7) Information on the liabilities of the MMF			
		December	
	(A.7.11)	Payments to investors	(in EUR)
		January	
		February	
		March	
		April	
		May	
		June	
		July	
		August	
		September	
		October	

	Item	Data type	Reported data
(A) Applicable to all MMFs			
(7) Information on the liabilities of the MMF			
		November	
		December	
	(A.7.12)	Exchange rate	
		January	
		February	
		March	
		April	
		May	
		June	
		July	
		August	
		September	
		October	
		November	
		December	

LVNAV MMFs

	Item	Data type	Reported data
(B) Applicable to LVNAV MMF			
		a) Indicate every event in which the price of an asset valued by using the amortised cost method in accordance with the first subparagraph of Article 29(7) deviates from the price of that asset calculated in accordance with Article 29(2), (3) and (4) by more than 10 basis points. These fields should be reported for every asset the price of which, by using the amortised cost method, would deviate in such a way.	
	(B.1.1)	Valuation date (the first day where the event occurs)	ISO 8601 date in the format YYYY-MM-DD
	(B.1.2)	ISIN of the asset	ISO 6166 ISIN 12 character alphanumerical code
	(B.1.3)	CFI code (if available and if the ISIN is not available) of the asset	ISO 10692 CFI, 6 characters alphabetical code
	(B.1.4)	Price (paragraph 2 to 4 of Article 29 of the MMF Regulation) (at the valuation date mentioned above when the event occurs)	
	(B.1.5)	Price (amortised cost method) (at the valuation date mentioned above when the event occurs)	
	(B.1.6)	From the valuation date specified in field B.1.1, state how long did the price of an asset valued by using the amortised cost method of this asset deviated by more than 10 basis points from the price of that asset	(days)
	(B.1.7)	During the period mentioned in the previous field, state the average difference between the two values mentioned in filed B.1.6	

(B.1.8)	During the period mentioned in the previous field, state the minimum price deviation between the two values	
(B.1.9)	During the period mentioned in the previous field, state the maximum price deviation between the two values	
	b) Indicate every event in which the constant NAV per unit or share calculated in accordance with Article 32(1) and (2) deviates from the NAV per unit or share calculated in accordance with Article 30 by more than 20 basis points.	
(B.1.10)	Valuation date (the first day where the event occurs)	ISO 8601 date in the format YYYY-MM-DD
(B.1.11)	Constant NAV (Article 31) (at the valuation date mentioned above when the event occurs)	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
(B.1.12)	Constant NAV (Article 31) (at the valuation date mentioned above when the event occurs)	(in base currency)
(B.1.13)	NAV (Article 30) (at the valuation date mentioned above when the event occurs)	(in EUR) (if the base currency is not EUR the exchange ratio used shall be the ECB one)
(B.1.14)	NAV (Article 30) (at the valuation date mentioned above when the event occurs)	(in base currency)
(B.1.15)	From the valuation date specified above, state how long did the constant NAV per unit or share calculated deviate from the NAV per unit or share calculated by more than 20 basis points	(days)
(B.1.16)	During the period mentioned in the previous field, state the average difference between the two values mentioned in the previous field	
(B.1.17)	During the period mentioned in the previous field, state the minimum price deviation between the two values	
(B.1.18)	During the period mentioned in the previous field, state the maximum price deviation between the two values	

	c) Indicate every event in which a situation mentioned in Article 34(3) occurs and the measures taken by the board in accordance with points (a) and (b) of Article 34(1).	
(B.1.19)	Date of the event	ISO 8601 date in the format YYYY-MM-DD
(B.1.20)	Date when the measure was taken	ISO 8601 date in the format YYYY-MM-DD
(B.1.21)	Type of measure (Whenever the proportion of weekly maturing assets falls below 30% of the total assets of the MMF and whenever the net daily redemptions on a single business day exceed 10% of total assets)	liquidity fees on redemptions redemption gates suspension of redemptions take no immediate action other than fulfilling the obligation laid down in Article 24(2) of the MMF Regulation
(B.1.22)	Type of measure (Whenever the proportion of weekly maturing assets falls below 10% of its total assets)	liquidity fees on redemptions suspension of redemptions

Guidelines on stress tests scenarios under Article 28 of the MMF Regulation

1 Scope

Who?

1. These guidelines apply to: i) national competent authorities; and ii) money market funds and managers of money market funds as defined in Regulation (EU) 2017/1131 of the European Parliament and of the Council on money market funds[19] ('MMF Regulation ').

What?

2. These guidelines establish common reference parameters for the stress test scenarios to be included in a MMF's stress tests conducted in accordance with Article 28 of the MMF Regulation.

When?

3. These guidelines apply from the dates specified in articles 44 and 47 of the MMF Regulation.

[19] *OJ L 30.06..2017, p.169/40.*

3 Purpose

4. The purpose of these guidelines is to ensure common, uniform and consistent application of the provisions in Article 28(1) of the MMF Regulation. In particular, and as specified in Article 28(7) of the MMF Regulation, they establish common reference parameters of the stress test scenarios to be included in the stress tests taking into account the following factors specified in Articles 28(1) of the MMF Regulation:

a) hypothetical changes in the level of liquidity of the assets held in the portfolio of the MMF;

b) hypothetical changes in the level of credit risk of the assets held in the portfolio of the MMF, including credit events and rating events;

c) hypothetical movements of the interest rates and exchange rates;

d) hypothetical levels of redemption;

e) hypothetical widening or narrowing of spreads among indexes to which interest rates of portfolio securities are tied;

f) hypothetical macro systemic shocks affecting the economy as a whole.

5. In accordance with Article 28(7) MMF Regulation, these guidelines will be updated at least every year taking into account the latest market developments. The section 5.8 of these guidelines will in particular be updated so that managers of MMFs have the information needed to fill in the corresponding fields in the reporting template mentioned in article 37 of the MMF Regulation. This information will include specifications on the type of the stress tests mentioned in this section 5.8 and their calibration, as well as the way to report their results in the reporting template mentioned in article 37(4) of the MMF Regulation.

4 Compliance and reporting obligations

4.1 Status of the guidelines

6. This document contains guidelines issued under Article 16 of the ESMA Regulation. In accordance with Article 16(3) of the ESMA Regulation national competent authorities and financial market participants must make every effort to comply with guidelines and recommendations.

4.2 Reporting requirements

7. Competent authorities to which these guidelines apply must notify ESMA whether they comply or intend to comply with the guidelines, with reasons for non-compliance, within two months of the date of publication by ESMA to [email address]. In the absence of a response by this deadline, competent authorities will be considered as non-compliant. A template for notifications is available from the ESMA website.

5 Guidelines on stress test scenarios under Article 28 of the MMF Regulation

5.1 **Guidelines on certain general features** of **the stress test scenarios of MMF**

Scope of the effects on the MMF of the proposed stress test scenarios

8. Article 28(1) of the MMF Regulation requires MMFs to put in place "*sound stress testing processes that identify possible events or future changes in economic conditions which could have unfavourable effects on the MMF*".

9. This leaves room for interpretation on the exact meaning of the "effects on the MMF", such as:

- impact on the portfolio or net asset value of the MMF,

- impact on the minimum amount of liquid assets that mature daily or weekly as referred to in Article 24(c) to 24(h) and Article 25(c) to 25(e) of the MMF Regulation,

- impact on the ability of the manager of the MMF to meet investors' redemption requests,

- impact on the the difference between the constant NAV per unit or share and the NAV per unit or share (as explictly mentioned in Article 28(2) of the MMF Regulation in the case of CNAV and LVNAV MMFs),

- impact on the ability of the manager to comply with the different diversification rules as specified in Article 17 of the MMF Regulation.

10. The wording of Article 28(1) of the MMF Regulation should include various possible definitions. In particular, the stress test scenarios referred to in Article 28 of the MMF Regulation should test the impact of the various factors listed in Article 28(1) of the MMF Regulation on both i) the portfolio or net asset value of the MMF and ii) the liquidity bucket(s) of the MMF and/or the ability of the manager of the MMF to meet investors' redemption requests. This broad interpretation is in line with the stress-testing framework of the AIFMD, which includes both meanings in its Articles 15(3)(b) and 16(1). The specifications included in the following sections 5.2 to 5.7 therefore apply to stress test scenarios on both aspects mentioned above.

11. With respect to liquidity, it is to be noted that liquidity risk may result from: (i) significant redemptions; (ii) deterioration of the liquidity of assets; or (iii) a combination of the two.

Historical scenarios and hypothetical scenarios

12. With respect to both stress test scenarios on i) the portfolio or net asset value of the MMF and ii) the liquidity bucket(s) of the MMF and/or the ability of the manager of the MMF to meet investors' redemption requests, managers could use the factors specified in sections 5.2 to 5.7 using historical and hypothetical scenarios.

13. Historical scenarios reproduce the parameters of previous event or crises and extrapolate the impact they would have had on the present portfolio of the MMF.

14. While using historical scenarios, managers should vary the time windows in order to process several scenarios and avoid getting stress test results that depend overly on an arbitrary time window (e.g. one period with low interest rates and another with higher rates). By way of example, some commonly used scenarios refer to junk bonds in 2001, subprime mortgages in 2007, the Greek crisis in 2009 and the Chinese stock market crash in 2015. These scenarios may include independent or correlated shocks depending on the model.

15. Hypothetical scenarios are aimed at anticipating a specific event or crisis by setting its parameters and predicting its impact on the MMF. Examples of hypothetical scenarios include those based on economic and financial shocks, country or business risk (e.g. bankruptcy of a sovereign state or crash in an industrial sector). This type of scenario may require the creation of a dashboard of all changed risk factors, a correlation matrix and a choice of financial behaviour model. It also includes probabilistic scenarios based on implied volatility

16. Such scenarios may be single-factor or multi-factor scenarios. Factors can be uncorrelated (fixed income, equity, counterparty, forex, volatility, correlation, etc.) or correlated: a particular shock may spread to all risk factors, depending on the correlation table used.

Aggregation of stress tests

17. In certain circumstances, in addition, managers could use aggregate stress test scenarios on a range of MMFs or even on all the MMFs managed by the manager. Aggregating results would provide an overview and could show, for example, the total volume of assets held by all the MMFs of the manager in a particular position, and the potential impact of several portfolios selling out of that position at the same time during a liquidity crisis.

Reverse stress testing

18. In addition to the stress test scenarios discussed in this section, the inclusion of reverse stress testing may also be of benefit. The intention behind a reverse stress test is to subject the MMF to stress testing scenarios to the point of failure, including the point where the regulatory thresholds set up in the MMF Regulation, such as those included in its Article 37(3)(a) would be breached. This would allow the manager of a MMF to have another tool to explore any vulnerabilities, pre-empt, and resolve such risks.

Combination of the various factors mentioned in the following sections 5.2 to 5.7 with investors' redemption requests

19. All factors mentioned in the following sections 5.2 to 5.7 should be tested against several levels of redemption. This is not to say that at first, managers should not also test them separately (without combining them with tests against levels of redemption), in order to be able to identify the corresponding respective impacts. The way this combination of the various factors mentioned in the following sections 5.2 to 5.7 with investors' redemption requests could be carried out is further specified in each of these sections.

20. In that context, some hypothesis on the behaviour of the manager with regard to honouring the redemption requests could be required.

21. A practical example of one possible implementation is given in Appendix 1(A).

Stress tests in the case of CNAV and LVNAV MMFs

22. Article 28(2) of the MMF Regulation indicates that in addition to the stress test criteria as set out in Article 28(1), CNAV and LVNAV MMFs shall estimate for different scenarios, the difference between the constant NAV per unit or share and the NAV per unit or share. While estimating this difference, and if the manager of the MMF is of the view that this would be useful additional information, it may also be relevant to estimate the impact of the relevant factors included in sections 5.2 to 5.7 on the volatility of the portfolio or on the volatility of the net asset value of the fund.

Non-exhaustiveness of the factors mentioned in the following sections 5.2 to 5.7

23. The factors set out in the following sections 5.2 to 5.7 are minimum requirements. The manager would be expected to tailor the approach to the specificities of its MMFs and add any factors or requirements that it would deem useful to the stress test exercise. Examples of other factors that could be taken into account include the repo rate considering MMFs are a significant player in that market.

24. More generally the manager should build a number of scenarios, with different levels of severity, which would combine all the relevant factors (which is to say that there should not just be separate stress tests for each factor – please also refer to the following sections 5.2 to 5.7).

5.2 Guidelines on the establishment of common reference parameters of the stress test scenarios in relation to hypothetical changes in the level of liquidity of the assets held in the portfolio of the MMF

25. With respect to the level of changes of liquidity of the assets mentioned in Article 28(1)(a) of the MMF Regulation, managers could consider such parameters as:

- the gap between the bid and ask prices;
- the trading volumes;
- the maturity profile of assets;
- the number of counterparties active in the secondary market. This would reflect the fact that lack of liquidity of assets may result from secondary markets related issues, but may also be related to the maturity of the asset.

26. The manager could also consider a stress test scenario that would reflect an extreme event of liquidity shortfall due to dramatic redemptions, by combining the liquidity stress test with a bid - ask spread multiplied by a certain factor while assuming a certain redemption rate of the NAV.

5.3 Guidelines on the establishment of common reference parameters of the stress test scenarios in relation to hypothetical changes in the level of credit risk of the assets held in the portfolio of the MMF, including credit events and rating events

27. With respect to the levels of changes in credit risk of the asset mentioned in Article 28(1)(b), guidance on this factor should not be too prescriptive because the widening or narrowing of credit spreads is usually based on quickly evolving market conditions.

28. However, managers could, for example, consider:

- the downgrade or default of particular portfolio security positions, each representing relevant exposures in the MMF's portfolio;

- the default of the biggest position of the portfolio combined with a downgrade of the ratings of assets within the portfolio;

- parallels shifts of the credit spreads of a certain level for all assets held in the portfolio.

29. With respect to such stress tests involving the levels of changes of credit risk of the asset, it would also be relevant to consider the impact of such stress tests on the credit quality assessment of the corresponding asset in the context of the methodology described in Article 19 of the MMF Regulation.

30. The manager should, for the purpose of combining different factors, combine changes to the level of credit risk of the assets held in the portfolio of the MMF with given levels of redemptions. The manager could consider a stress test scenario that would reflect an extreme event of stress due to uncertainty about the solvency of market participants, which would lead to increased risk premia and a flight to quality. This stress test scenario would combine the default of a certain percentage of the portfolio with spreads going up together while assuming a certain redemption rate of the NAV.

31. The manager could also consider a stress test scenario that would combine a default of a certain percentage of the value of the portfolio with an increase in short term interest rates and a certain redemption rate of the NAV.

5.4 **Guidelines on the establishment of common reference parameters of the stress test scenarios in relation to hypothetical movements of the interest rates and exchange rates**

32. With respect to the levels of change of the interest rates and exchange rates mentioned in Article 28(1)(c) of the MMF Regulation, managers could consider stress testing of parallel shifts of a certain level. More specifically, managers could consider depending on the specific nature of their strategy:

i. an increase in the level of short term interest rates with 1-month and 3-month treasury rates going up simultaneously while assuming a certain redemption rate ;

ii. a gradual increasein the long term interest rates for sovereign bonds;

iii. a parallel and/or non parallel shift in the interest rate curve that would change short, medium and long interest rate;

iv. movements of the FX rate (base currency vs other currencies).

33. The manager could also consider a stress test scenario that would reflect an extreme event of increased interest rates that would combine an increase in short-term interest rates with a certain redemption rate. The manager could also consider a matrix of interest rates / credit spreads.

5.5 **Guidelines on the establishment of common reference parameters of the stress test scenarios in relation to hypothetical levels of redemption**

34. With respect to the levels of redemption mentioned in Article 28(1)(d) of the MMF Regulation, managers could consider redemption stress tests following from historical or hypothetical redemption levels or with the redemption being the maximum of either a certain percentage of the NAV or an opt-out redemption option exercised by the most important investors.

35. Stress tests on redemptions should include the specific measures which the MMF has the constitutional power to activate (for instance, gates and redemption notice).

36. The simulation of redemptions should be calibrated based on stability analysis of the liabilities (i.e. the capital), which itself depends on the type of investor (institutional, retail, private bank, etc.) and the concentration of the liabilities. The particular characteristics of the liabilities and any cyclical changes to redemptions would need to be taken into account when establishing redemption scenarios. However, there are many ways to test liabilities and redemptions. Examples of significant redemption scenarios include i) redemptions of a percentage of the liabilities ii) redemptions equal to the largest redemptions ever seen iii) redemptions based on an investor behaviour model.

37. Redemptions of a percentage of the liabilities could be defined based on the frequency of calculating the net asset value, any redemption notice period and the type of investors.

38. It is to be noted that liquidating positions without distorting portfolio allocation requires a technique known as slicing, whereby the same percentage of each asset type (or each liquidity class if the assets are categorised according to their liquidity, also known as *bucketing*) is sold, rather than selling the most liquid assets first. The design and execution of the stress test should take into account and specify whether to apply a slicing approach or by contrast a waterfall approach (i.e. selling the most liquid assets first).

39. In the case of redemption of units by the largest investor(s), rather than defining an arbitrary redemption percentage as in the previous case, managers could use information about the investor base of the MMF to refine the stress test. Specifically, the scenario involving redemption of units by the largest investors should be calibrated based on the concentration of the fund's liabilities and the relationships between the manager and the principal investors of the MMF (and the extent to which investors' behaviour is deemed volatile).

40. Managers could also stress test scenarios involving redemptions equal to the largest redemptions ever seen in a group of similar (geographically or in terms of fund type) MMFs or across all the funds managed by the manager. However, the largest redemptions witnessed in the past are not necessarily a reliable indicator of the worst redemptions that may occur in the future.

41. A practical example of one possible implementation is given in Appendix 1(B).

5.6 Guidelines on the establishment of common reference parameters of the stress test scenarios in relation to hypothetical widening or narrowing of spreads among indexes to which interest rates of portfolio securities are tied

42. With respect to the extent of a widening or narrowing of spreads among indexes to which interest rates of portfolio securities are tied as mentioned in Article 28(1)(e) of the MMF Regulation, managers could consider the widening of spreads in various sectors to which the portfolio of the MMF is exposed, in combination with various increase in shareholder redemptions. Managers could in particular consider a widening of spreads going up.

5.7 Guidelines on the establishment of common reference parameters of the stress test scenarios in relation to hypothetical macro systemic shocks affecting the economy as a whole

43. With respect to the identification of macro-systemic shocks affecting the economy as a whole mentioned in Article 28(1)(f) of the MMF Regulation, guidance on this item should not be prescriptive because the choice of hypothetical macro systemic shocks will depend to a large extent on the latest developments in the market.

44. However, ESMA is of the view that managers could use an adverse scenario in relation to the GDP. Managers could also replicate macro systemic shocks that affected the economy as a whole in the past.

45. Examples of such global stress test scenarios that the manager could consider are provided in Appendix 1(C).

5.8 Guidelines on the establishment of common reference stress test scenarios the results of which should be included in the reporting template mentioned in article 37(4) of the MMF Regulation

46. In addition to the stress tests managers of MMFs conduct taking into account the requirements included in the sections 5.1 to 5.7 of these guidelines, managers of MMFs should conduct common reference stress test scenarios the results of which should be included in the reporting template mentioned in article 37(4) of the MMF Regulation.

47. Managers of MMF should include in the reporting template mentioned in article 37(4) of the MMF Regulation the results of the following stress tests:

Risk factor	Calibration	Results
Liquidity		
Credit		
FX Rate		
Interest Rate		
Level of Redemption		
Spread among indices to which interest rates of portfolio securities are tied		
Macro		
Multivariate		

48. In terms of results of the abovementioned reported stress test, given that the two main goals of the stress tests are to measure the impact of given shocks on the NAV and the impact on liquidity, both impacts should be reported.

Appendix 1

A.

Example of stress combining the various factors mentioned in sections 5.2 to 5.7 with investors' redemption requests

A practical example of one possible implementation of the section "Combination of the various factors mentioned in the following sections 5.2 to 5.7 with investors' redemption requests**"** is given below.

The table below estimates the losses incurred by the MMF in the event of redemptions or market stress (credit or interest rate shocks).

First scenario: credit premium shock of 25 bps

Second scenario: interest rate shock of 25 bps

			Three largest investors (25%) ↓						Very stable investors (15%) ↓	
Redemptions	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%
Initial portfolio			2 bps	3 bps	5 bps	6 bps	8 bps	9 bps	11 bps	12 bps
First scenario	7 bps	9 bps	13 bps	18 bps	24 bps	32 bps	45 bps	66 bps	110 bps	236 bps
Second scenario	3 bps	4 bps	6 bps	9 bps	12 bps	16 bps	21 bps	28 bps	38 bps	85 bps
WAL (days)	105	117	131	149	169	192	219	249	290	320

This stress test shows that a redemption by the three largest investors (25% of net assets) would push the weighted average life (WAL) beyond the 120-day regulatory threshold (for a short-term money market fund) and cause the portfolio to lose in the region of 2-3 bps under normal conditions. The same level of cumulative redemptions with a 25 bps rise in interest rates would cause a loss of around 13-18 bps.

B.

Example of Redemptions based on an investor behaviour model, in accordance with the breakdown of liabilities by investor category, imply the simulation of the behaviour of each type of investor and establishes a simulation based on the composition of the liabilities of the MMF.

Example of investor classification and simulation of their behaviour (the figures shown are not real): Investor type	Record redemptions for this investor type		
	Over one day	Over one week	Over one month
Large institutional	25%	75%	100%
Group entity (bank, insurance, own account)	20%	40%	40%
Investment fund	20%	65%	100%
Small institutional	10%	25%	40%
Private banking network	15%	40%	75%
Retail investor with distributor A	5%	10%	20%
Retail investor with distributor B	7%	15%	20%

	Stressed redemptions for this investor category
Large institutional	75%
Group entity (bank, insurance, own account)	0% (in agreement with the AMC)
Investment fund	65%
Small institutional	25%
Private banking network	40%
Retail investor with distributor A	10%
Retail investor with distributor B	15%

In order to build such a simulation of this kind, the manager needs to make assumptions about the behaviour of each investor type, based in part on historical redemptions. In the example above, the manager has noted that the retail investors who invested through distributor A are historically slower to exit in the event of difficulty, but that they exhibit the same behaviour over one month as retail investors who invested through distributor B. This fictitious example shows a possible classification that the manager may use based on the data available on the liabilities of the MMF and the behaviour of its investors.

C.

10. Examples of global stress test scenarios that the manager could consider:

11.

i. the Lehman Brothers' event with the calibration of all relevant factors one month ahead of the failure of this firm;

iii. A) a scenario including a combination of the 3 following factors: i) a parallel shift in interest rate (x) ii) a shift in credit spreads (y) and iii) a redemption stress (z));

iv. B) a scenario including a combination of the 3 following factors: i) a parallel shift in interest rate (x) ii) a shift in credit spreads (y) and iii) a redemption stress (z)) Variables x, y and z being the worst figures/shifts experienced by the fund, on an independent basis, for the last 12 months.