Consultation Paper

Guidelines on liquidity stress testing in UCITS and AIFs

5 February 2019| ESMA34-39-784

Responding to this paper

ESMA invites comments on all matters in this paper and in particular on the specific questions summarised in section 5. Comments are most helpful if they:

- respond to the question stated;
- indicate the specific question to which the comment relates;
- contain a clear rationale; and
- describe any alternatives ESMA should consider.

ESMA will consider all comments received by **1 April 2019**.

All contributions should be submitted online at www.esma.europa.eu under the heading 'Your input - Consultations'.

Publication of responses

All contributions received will be published following the close of the consultation, unless you request otherwise. Please clearly and prominently indicate in your submission any part you do not wish to be publically disclosed. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure. A confidential response may be requested from us in accordance with ESMA's rules on access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by ESMA's Board of Appeal and the European Ombudsman.

Data protection

Information on data protection can be found at www.esma.europa.eu under the heading Legal Notice.

Who should read this paper

The main stakeholders to whom these guidelines would apply are managers of UCITS and EU AIFMs as well as EU depositaries overseeing UCITS and EU AIFs. The paper will also be of interest to trade associations, investors and consumer groups relating to UCITS and EU AIFs.

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1 Legislative references, abbreviations and definitions

For a list of legislative references, abbreviations and definitions used in this Consultation Paper, please see section 1 of the draft Guidelines (page 20).

2 Executive Summary

Reasons for publication

In April 2018, the European Systemic Risk Board (ESRB) published a set of recommendations to address liquidity and leverage risk in investment funds (the ESRB recommendations[1]). The ESRB's 'Recommendation C' requests that ESMA, in order to promote supervisory convergence, "develop guidance on the practice to be followed by managers for the stress testing of liquidity risk for individual AIFs and UCITS". Furthermore the ESRB recommendations set out:

"The guidance issued on liquidity stress testing by ESMA should include, but not be limited to:

(a) the design of liquidity stress testing scenarios;
(b) the liquidity stress test policy, including internal use of liquidity stress test results;
(c) considerations for the asset and liability sides of investment fund balance sheets; and
(d) the timing and frequency for individual funds to conduct the liquidity stress tests.

Such guidance should be based on the stress testing requirements set out in Directive 2011/61/EU and how market participants carry out stress testing".

These draft Guidelines set out the criteria for managers' LST programmes, in doing so fulfilling the above ESRB recommendations. ESMA has produced a set of fourteen (principles-based) draft Guidelines for managers to fulfil when executing LST on their funds. Broadly, these Guidelines set out that LST should: be tailored towards the individual fund, reflect the most applicable risks to a fund, be sufficiently extreme or unfavourable (yet plausible), sufficiently model how a manager is likely to act in times of stressed market conditions, and be embedded into the fund's risk management framework. One Guideline applies to depositaries, outlining how they should fulfil their obligations regarding LST. The Guidelines are reinforced via a number of sections providing explanatory considerations for managers, to assist their compliance with the Guidelines.

In publishing draft Guidelines for managers, ESMA is also seeking to promote convergence in the way the NCAs supervise LST across the European Union.

Stakeholder's views are also sought on ESMA's overall approach, which is to develop a set of Guidelines for managers of UCITS and AIFs to follow, with explanatory considerations accompanying these. The document also contains Guidelines for depositaries.

Contents

Section 3 explains the background to our proposals and outlines its legislative basis. Section 4 details ESMA's initial cost-benefit analysis concerning these Guidelines. At all stages stakeholders' input is sought through specific questions, which are summarised in section 5.

The proposed Guidelines are set out in the annex to this consultation. Section 5 of the annex contains the Guidelines that all in-scope managers and depositaries should follow when undertaking/overseeing LST. Sections 6-13 provide explanatory considerations for managers and (in section 12) depositaries to assist them in complying with the Guidelines outlined in section 5. Annex 2 - Other relevant regulatory publications on this topic provides information on regulatory publications on LST.

Next Steps

ESMA will consider the feedback it received to this consultation in early Q2 2019 and expects to publish a final report by the summer of 2019. Responses to this consultation will therefore help ESMA in finalising the guidelines for publication.

[1] ESRB/2017/6, https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation180214_ESRB_2017_6.en.pdf?723f0fa99b1e8886e651e4950d2a55af

3 Background

1. The proposed Guidelines have been drafted in response to a recommendation by the ESRB for ESMA to produce guidance ensuring robust and convergent LST practices by managers across the EU. The ESRB requested that the Guidelines should be "based on the stress testing requirements set out in Directive 2011/61/EU" setting out how managers should carry out stress testing. It was also recommended that the guidance include, but not be limited to:

   (a) the design of liquidity stress testing scenarios;
   (b) the liquidity stress test policy, including internal use of liquidity stress test results;
   (c) considerations for the asset and liability sides of investment fund balance sheets; and
   (d) the timing and frequency for individual funds to conduct the liquidity stress tests.

Legislative basis

2. These Guidelines relate to provisions of both the AIFMD and UCITS Directive.

3. Article 16(1) of the AIFMD provides:

   - "AIFMs shall, for each AIF that they manage which is not an unleveraged closed-ended AIF, employ an appropriate liquidity management system and adopt procedures which enable them to monitor the liquidity risk of the AIF and to ensure that the liquidity profile of the investments of the AIF complies with its underlying obligations".
   - "AIFs shall regularly conduct stress tests, under normal and exceptional liquidity conditions, which enable them to assess the liquidity risk of the AIFs and monitor the liquidity risk of the AIFs accordingly".

4. Specific requirements for liquidity risk management are set out in the AIFMD Level 2 Regulation. According to these requirements, the AIFM is required at least to ensure, *inter alia*, the following:

   - a fund "maintains a level of liquidity in the AIF appropriate to its underlying obligations, based on an assessment of the relative liquidity of the AIF's assets in the market, taking account of the time required for liquidation and the price or value at which those assets can be liquidated, and their sensitivity to other market risks or factors" (Article 47(1)(a));
   - "monitors the liquidity profile of the AIF's portfolio of assets, having regard to the marginal contribution of individual assets which may have a material impact on liquidity, and the material liabilities and commitments, contingent or otherwise, which the AIF may have in relation to its underlying obligations. For these purposes, the AIFM shall take into account the profile of the investor base of the AIF, including the type of investors, the relative size of investments and the redemption terms to which the investments are subject" (Article 47(1)(b));
   - "implements and maintains appropriate liquidity measurement arrangements and procedures to assess the quantitative and qualitative risks of positions and of

intended investments which have a material impact on the liquidity profile of the portfolio of the AIF's assets to enable their effects on the overall liquidity profile to be appropriately measured. The procedures employed shall ensure that the AIFM has the appropriate knowledge and understanding of the liquidity of the assets in which the AIF has invested or intends to invest including, where applicable, the trading volume and sensitivity of prices and, as the case may be, or spreads of individual assets in normal and exceptional liquidity conditions" (Article 47(1)(d));

- "document their liquidity management policies and procedures […] review them on at least an annual basis and update them for any changes or new arrangements" (Article 47(2));
- "include appropriate escalation measures in their liquidity management system and procedures […] to address anticipated or actual liquidity shortages or other distressed situations of the AIF" (Article 47(3));
- "where appropriate, considering the nature, scale and complexity of each AIF they manage, implement and maintain adequate limits for the liquidity or illiquidity of the AIF consistent with its underlying obligations and redemption policy [...] monitor compliance with those limits and where limits are exceeded or likely to be exceeded, they shall determine the required (or necessary) course of action […] shall consider the adequacy of the liquidity management policies and procedures, the appropriateness of the liquidity profile of the AIF's assets and the effect of atypical levels of redemption requests" (Article 48(1)).

5. Furthermore, the AIFM is to "ensure that, for each AIF that they manage, the investment strategy, the liquidity profile and the redemption policy are consistent" (Article 16(2) AIFMD).

6. In addition, Recital 61 of the AIFMD Level 2 Regulation states:

   - "The use of minimum limits regarding the liquidity or illiquidity of the AIF could provide an effective monitoring tool for certain types of AIFMs. Exceeding a limit may not of itself require action by the AIFM as this depends on the facts and circumstances and the tolerances set by the AIFM. Limits could thus be used in practice in relation to monitoring average daily redemption versus fund liquidity in terms of days over the same period. That could also be used to monitor investor concentration to support stress testing scenarios. Those limits could provide triggers for continued monitoring or remedial action depending on the circumstances".

7. LST must be conducted where appropriate by UCITS (Article 40(3) of the UCITS Level 2 Directive). These should "enable assessment of the liquidity risk of the UCITS under exceptional circumstances".

8. Articles 40(1) and 40(2) of the UCITS Level 2 Directive determine that Member States must ensure that UCITS managers:

   - "conduct, where appropriate, periodic back-tests in order to review the validity of risk measurement arrangements which include model-based forecasts and estimates; c) conduct, where appropriate, periodic stress tests and scenario analyses to address risks arising from potential changes in market conditions that might adversely impact the UCITS";

- “employ appropriate liquidity risk management process in order to ensure that each UCITS they manage is able to comply at any time with Article 84(1) of Directive 2009/65/EC [article 84: “A UCITS shall repurchase or redeem its units at the request of any unit-holder […]”].”

Further background to these Guidelines

9. In recent years, liquidity risk in funds has been a subject of focus by both national and international regulators/authorities, such as the IMF, FSB, IOSCO and the ESRB. In general, the focus has been on the risk that:

   - Liquidity risk might not be adequately managed in a fund in accordance with applicable rules.
   - Investors’ redemption requests may exceed funds’ ability to liquidate assets, causing a need to impose some form of restriction on redemptions. Investor protection issues could arise from such actions, particularly when investors are not made well aware of funds’ ability to restrict redemptions.
   - In seeking to meet larger than expected redemption requests, funds may not be able to sell assets quickly without accepting large discounts on assets. Such ‘fire sale’ activity could lead to contagion effects in the wider market, causing a financial stability issue[2].

10. Two factors have largely driven increased regulatory focus on this issue:

    - The sharp growth of the asset management industry (measured by total net assets) since the mid-2000s. This has increased the potential impact of asset management activities on the broader market; and
    - An increased focus on the potential ‘liquidity mismatch’ in many investment funds, whereby units in funds are sometimes dealt and settled in a shorter timeframe than the fund’s assets can be reasonably liquidated[3].

[2] IMF Working Paper, ‘Liquidity Stress Tests for Investment Funds: A Practical Guide’ pg-4-5.
[3] IMF Working Paper, ‘Liquidity Stress Tests for Investment Funds: A Practical Guide’ pg-4-5

11. Funds incur crystallised or materialised liquidity risk of the type that requires some form of limitation on investor redemptions infrequently. However, that is not to say that this occurs so infrequently as to be unheard of. One example of an infrequent occurrence of crystallised liquidity risk is where a stock market closes due to exceptional weather conditions, so a fund investing in that market may have to suspend dealing in its units until the market reopens as there is no liquidity in the underlying assets. Typically, these actions do not often lead to widespread detriment to investors, nor any material risk to markets and financial stability4. However, they also serve as reminders that funds must be sufficiently prepared for high impact liquidity events which may have consequences for investors, with a programme of robust LST playing a clear role in this process.

12. The impact of crystallised liquidity risk in investment funds on markets and investors mostly depends on the duration of stressed conditions and the size of the funds which are exposed to liquidity stress, such that:

- A material number of investors are affected, and/or
- There is a material risk to markets and financial stability relating to funds liquidating assets quickly to meet redemptions.

13. The impact of previous cases of crystallised liquidity risk in investment funds is largely considered to have been contained[5]. However, that is not to downplay the potential impact on investors and the financial system of liquidity stress experienced by one or a number of funds. For this reason, it is essential that funds are adequately prepared for both normal and stressed liquidity conditions. A robust programme of liquidity stress testing, in tandem with other measures such as contingency planning, is a key component of this preparation.

14. LST is therefore one tool in a suite of many tools to manage fund liquidity. As these draft Guidelines specify, LST is not an exercise to be taken in isolation, it necessarily relies on being integrated into the overall liquidity risk management process of an investment fund.

15. Finally, there has also been an increased focus on the importance of NCAs undertaking convergent supervision of managers' LST in order to help ensure minimum standards are met across the EU.

16. This increased focus on the need to ensure robust LST standards across the EU led to the ESRB's April 2018 publication of a recommendation that ESMA produce guidance on LST, with the aim of achieving robust and convergent standards of LST by managers across the EU.

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[4] Open-ended Fund Liquidity and Risk Management – Good Practices and Issues for Consideration (IOSCO FR 02/2018). Pages 38-40, include examples of cases crystallised liquidity risk in European funds) https://www.iosco.org/library/pubdocs/pdf/IOSCOPD591.pdf

[5] IMF Working Paper, 'Liquidity Stress Tests for Investment Funds: A Practical Guide' page 5

17. In summary, the purpose of these draft Guidelines is to contribute to managers' on-going fund liquidity risk management, as well as their mitigation of the potential impact of crystallised liquidity risk in funds by outlining a set of minimum standards by which managers across all Member States should conduct a robust programme of LST. It further seeks to promote supervisory convergence by providing a set of minimum standards by which NCAs should assess managers' LST programmes. In doing so, ESMA seeks to fulfil the ESRB's request for the production of guidance of LST.

Commentary on the proposed scope of the draft Guidelines

18. The scope section (section 2) of the draft Guidelines clarifies the fund types to which the Guidelines would be applicable.

19. The draft scope proposes that MMFs be in-scope of the Guidelines without prejudice to more granular and/or prescriptive requirements under the MMFR and associated ESMA Guidelines exclusively relating to MMFs. The rationale for this is that these Guidelines set out more broad parameters by which liquidity stress testing of all in-scope UCITS and AIFs should take place, although these should not replace any specific parameters in place for MMFs. This approach would require MMF managers to be mindful of other requirements when conducting liquidity stress tests in accordance with these Guidelines. In particular, due regard would need be made to more prescriptive requirements under the MMFR and associated ESMA Guidelines regarding stress testing of fund assets and liabilities, and the frequency of stress tests applicable to MMFs. MMF Managers' views are sought regarding this proposal.

20. The draft scope also clarifies that ETFs are in-scope, be they UCITS or AIFs.

21. Finally, the draft scope also proposes that leveraged closed ended AIFs be in-scope, consistent with obligations of such funds under the AIFMD. This is because liquidity risk may materialise independently of redemptions. Subsequently, due regard should be made to the relatively narrow definition of a closed ended AIF under applicable rules[6] and the consequent need to apply the proposed Guidelines in a proportionate manner to open ended AIFs that offer infrequent redemption opportunities. The definition of an open ended AIF is wide, encompassing any AIF whose shares or units are, at the request of any of its investors, repurchased or redeemed prior to the commencement of its liquidation phase or wind-down.

[6] Commission Delegated Regulation (EU) No 694/2014 of 17 December 2013 supplementing Directive 2011/61/EU of the European Parliament and of the Council with regard to regulatory technical standards determining types of alternative investment fund managers

4 Cost-benefit analysis

Background

22. LST is an existing requirement under AIFMD, MMFR, and UCITS.

23. The purpose of these Guidelines is to establish consistent, efficient and effective supervisory practices within the ESFS and to ensure the common, uniform and consistent application of Union law. In particular, their purpose is to increase the standard, consistency and, in some cases, frequency of LST already undertaken and promote convergent supervision of LST by NCAs.

Reasons for Publication

24. The primary reason for publishing these Guidelines is that in April 2018 the ESRB published its recommendation that ESMA produce Guidelines on the topic.

25. A survey undertaken by the ESRB into LST practices showed a range of shortcomings of stress-testing procedures[7]. These included “too-small haircuts, stress-testing frequency and scenario design, and a naïve use of historical data”. These draft Guidelines primarily seek to address those and other shortcomings.

26. The same survey indicated that Guidelines would introduce no new LST programme on the great majority of managers. Of the 274 managers surveyed, 93% “regularly stress test all investment funds under management and perform additional stress tests (or have the ability do so) whenever material changes occur”[8].

27. A number of NCAs have produced some form of Guidelines on this topic, including detailed guidance from BaFin (DE) and the AMF (FR). Therefore, another reason for publication of these draft Guidelines is to ensure a convergence of minimum standards in all Member States.

Impact of the Guidelines

28. The following table summarises the potential costs and benefits resulting from the implementation of these guidelines.

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[7] Recommendation of the European Systemic Risk Board on liquidity and leverage risks in investment funds (ESRB/2017/6), Page 32
https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation180214_ESRB_2017_6.en.pdf?723f0fa99b1e8886e651e4950d2a55af
[8] P 33, (ESRB/2017/6),

Policy objective	To achieve a set of minimum standards by which all managers across Member States conduct LST in funds.
Technical proposal	To provide Guidelines on how managers can improve their LST procedures, including by determining the appropriate use of haircuts, frequency and scenario design, and use of historical data.
Benefits	ESMA expects that these guidelines will benefit managers, depositaries and NCAs by providing clarity and guidance on expected practices. The FSB and ESRB recommendations stem from the objective of improving liquidity management in funds more generally, with LST being a key component of this. There is evidence that improved LST standards and the improved liquidity management that could flow from it would be beneficial to managers. For example, a stakeholder has stated that the FSB recommendations were ‘positive’ for managers, due to the lower reputation risk and increased earnings stability that may result from managers’ improved practices[9]. The ESRB stated that LST should reduce liquidity risk at the investment fund level, this should lead to a lower risk of measures such as fund suspensions, which can be a source of reputational risk for managers. ESMA also expects that the proposed Guidelines will benefit a broader set of stakeholders. The ESRB explained in its recommendation that ESMA should produce these Guidelines in order to help: • “Lower liquidity risk at the financial system level”. By reducing liquidity risk at the level of the investment fund, it may reduce the likelihood of funds disposing of assets at significant discounts in order to service redemptions (‘fire sales’). Fire sales by a material proportion of funds would be likely to move asset prices, potentially affecting financial stability. • “Strengthen the ability of entities to manage liquidity in the best interests of investors”. Investors in funds have reasonable expectations that funds will be able to honour redemption requests, as set out in fund documents such as the prospectus. Improved liquidity management standards (via LST) could therefore reduce the likelihood that

[9]www.ipe.com/news/regulation/fsb-proposals-positive-for-asset-managers-investors-says-moodys/10017105.fullarticle

	investors' redemptions will be restricted. Further, it may also reduce the likelihood that funds will sell assets at fire-sale prices, which may not be in investors' interests.
Costs for managers	The great majority of managers, 93% as measured by one survey[10], already undertake LST and as such these Guidelines may not add significant additional costs related to undertaking LST for the first time. Given that LST is already required annually on in-scope AIFs, ESMA anticipates that these Guidelines would lead to limited costs for managers, focused on those UCITS managers which do not already undertake LST.
Initial costs for managers	Within the group of managers already operating a programme of LST (93%), ESMA anticipates that those managers which already incorporate minimum standards would not incur significant initial, ongoing or ad-hoc costs. Costs related to reading and responding to this Consultation, and ensuring standards meet those specified in the Guidelines are expected to be incurred. For those managers who do not implement these minimum standards, managers are likely to incur initial costs related to the adaptation of their LST practices.
Ongoing costs for managers	The ESRB recognised in its recommendation that the minimum standards set out in this Guidelines could result in 'extra' stress testing, and therefore higher costs[11]. Such higher costs may arise from higher standards related to actions taken as result of complying with minimum standards in this Guidelines. For example, the incorporation of reverse stress testing into managers' practices may require additional risk management resources. However, as outlined above, this cost should be balanced by the reputational and other benefits which arise from improved liquidity management when minimum LST standards are met.
Ad-hoc costs for managers	Ad-hoc costs may decrease, as the need for corrections and enforcement by NCAs should be reduced, since clear standards are set out in the Guidelines.
Costs for depositaries	Depositaries may incur costs through complying with the Guideline to verify managers have LST procedures in place. To mitigate this, the draft Guidelines draw on existing wording in UCITS and AIFMD

[10] Recommendation of The European Systemic Risk Board on liquidity and leverage risks in investment funds, (ESRB/2017/6), Page 32

[11] Recommendation Of The European Systemic Risk Board on liquidity and leverage risks in investment funds, (ESRB/2017/6), Page 34

	to highlight depositaries' obligations in this area. Further, ESMA believes that the proposed Guidelines are proportionate and limited, particularly as documents such as the UCITS and AIF RMP are already reviewed by many depositaries.
Costs to investors	Investors could conceivably incur costs from the implementation of these Guidelines. For example, if LST highlights that it may be prudent to ensure additional liquid assets in a fund ahead of an event which may materially impact fund liquidity, this can create costs for investors in the fund. These costs could include costs from liquidating positions in less liquid assets (such as transactions costs). In both cases investors would hypothetically 'pay' those costs via lower fund performance. This however should be balanced by the following: (a) UCITS are required to be able to meet redemption demands at all times, as a result LST could be one factor in enabling that outcome, however the overriding requirement is set by the UCITS Directive, not these Guidelines (b) investors in AIFs may not be subject to the same increased costs, as they may not be subject to the same obligation to provide liquidity on-demand to investors.
Costs to ESMA & national competent authorities (NCAs)	The Guidelines are not anticipated to add significant additional costs to ESMA and NCAs. The Guidelines could in fact lead to lower resource requirements from NCAs, due to potential for a reduced need to expend resource on requiring improvements in standards of LST.

<u>Question to stakeholders</u>

Q1 What additional costs and benefits would compliance with the proposed Guidelines bring to the stakeholders you represent? Please provide quantitative figures, where available.

5 Summary of questions

Q1 What additional costs and benefits would compliance with the proposed Guidelines bring to the stakeholder(s) you represent? Please provide quantitative figures, where available.

Q2 Do you agree with the scope of these Guidelines? Should certain types of funds be explicitly excluded from these Guidelines? Should MMFs remain in-scope of these Guidelines?

Q3 Is additional clarity required regarding the scope of these Guidelines? Is additional clarity required regarding the meaning of 'nature, scale and complexity' of a fund? Are there circumstances in which it would, in your view, be inappropriate for a UCITS to undertake LST?

Q4 What are your views on when the Guidelines should become applicable? How much time would managers require to operationalise the requirements of these Guidelines?

Q5 Do you agree with the proposed approach of setting out a list of Guidelines all funds should follow, and the provision of explanatory considerations to help managers comply with those overarching Guidelines? Do you see merit in including some of the explanatory considerations in the final Guidelines?

Q6 Do you agree with the proposed Guidelines? What amendments, if any, should ESMA make to its proposed Guidelines?

Q7 Do you agree with the proposed explanatory considerations regarding LST of fund assets?

Q8 What are your views on the requirement to undertake reverse stress testing, and the use of this tool?

Q9 Do you see merit in providing further considerations for managers on the use of data relevant to asset liquidity, particularly in circumstances when data is scarce?

Q10 Do you agree with ESMA's wording regarding the asset liquidation method used in the LST model? How would you describe the asset liquidation method used by you or the managers you represent?

Q11 Do you agree with ESMA's wording regarding 'second round effects'? What is your current practice regarding modelling 'second round effects'?

Q12 What are your views on the considerations on difficult to model parameters, such as price uncertainty? What is your current practice concerning this issue?

Q13 Do you agree with ESMA's considerations on LST in funds investing in less liquid assets? What amendments should be made to the proposed wording? Do you think that ESMA should outline additional and/or specific Guidelines to be made in any other fund or asset types, such as ETFs?

Q14 Do you agree with the considerations regarding LST on items on the liabilities side of a fund's balance sheet?

Q15 Do you agree with the considerations specifying the LST of redemptions and other types of liabilities may need to be considered distinctly, given a fund could potentially limit redemptions but not other sources of liquidity drain?

Q16 Do you agree with the requirement to reverse stress test items on the liabilities side of the fund balance sheet?

Q17 Do you agree with the requirement to incorporate investor behaviour considerations into the LST model 'where appropriate'? Are there cases which you believe it would not be appropriate, and should these be detailed in these Guidelines?

Q18 What do you think about ESMA's Guideline stating that managers should combine LST results on both sides of the balance sheet?

Q19 What are your views on ESMA's Guideline that aggregated LST should be undertaken where deemed appropriate by the manager?

Q20 What is your experience of performing aggregated LST and how useful are the results?

Q21 What are your views on ESMA's considerations concerning the use of LST during a fund's lifecycle?

Q22 What is your experience of the use of LST in determining appropriate investments of a fund?

Q23 In your view, has ESMA omitted any key uses of LST?

Q24 Do you agree with ESMA's Guideline that LST should be undertaken in all cases annually, but that it is recommended to undertake it at least quarterly, unless a different frequency can be justified? What is the range of frequency of LST applied on funds managed by stakeholder(s) you represent?

Q25 Should ESMA provide more prescriptive Guidelines on the circumstances which can justify a more/less frequent employment of LST?

Q26 Do you agree that LST should be employed outside its scheduled frequency (ad-hoc) where justified by an emerging/imminent risk to fund liquidity?

Q27 What are your views on the governance requirements regarding LST?

Q28 Should more information be included in the UCITS RMP and AIF RMP?

Q29 Do you have any views on how managers which delegate portfolio management can undertake robust LST, independently of the portfolio manager, particularly when the manager does not face the market?

Q30 Do you agree with the proposed Guideline for depositaries on carrying out their duties regarding LST?

Q31 In your experience do depositaries review the UCITS RMP and AIF RMP as a matter of course?

Q32 Do you see merit in ESMA publishing further guidance on the reporting of results of liquidity stress tests? If so, in your view how should ESMA require that results be reported?

Annex 1 – Guidelines on liquidity stress testing in UCITS and AIFs

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1 Legislative references, abbreviations and definitions

Legislative references

UCITS	Directive 2009/65/EC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)[12]
AIFMD	Directive 2011/61/EU 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[13]
AIFMD Level 2 Regulation	Commission Delegated Regulation (EU) No 231/2013 supplementing Directive 2011/61/EU of the European Parliament and of the Council with regard to exemptions, general operating conditions, depositaries, leverage, transparency and supervision[14].
UCITS Level 2 Directive	Commission Directive 2010/43/EU implementing Directive 2009/65/EC of the European Parliament and of the Council as regards organisational requirements, conflicts of interest, conduct of business, risk management and content of the agreement between a depositary and a management company[15]
UCITS Level 2 Regulation	Commission Delegated Regulation (EU) 2016/438 supplementing Directive 2009/65/EC of the European Parliament and of the Council with regard to obligations of depositaries.[16]
MMFR	Regulation (EU) 2017/1131 on money market funds[17]
ESMA Regulation	Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC[18]

[12] OJ L 302, 17.11.2009, p. 32–96
[13] OJ L 174, 1.7.2011, p.1
[14] OJ L 83, 22.3.2013, p. 1–95
[15] OJ L 176, 10.7.2010, p. 42–61
[16] OJ L 78, 24.3.2016, p. 11–30
[17] OJ L 169, 30.6.2017, p. 46–127
[18] OJ L 331, 15.12.2010, p. 84.

Abbreviations

AIF	Alternative Investment Fund
AIF RMP	AIFM's Documented Risk Management Policy
AIFM	Alternative Investment Fund Manager
a-LMT	Additional Liquidity Management Tool
AMF	Autorité des Marchés Financiers
BaFin	Bundesanstalt für Finanzdienstleistungsaufsicht
DE	Federal Republic of Germany
ETF	Exchange Traded Fund
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
EU	European Union
FCA	Financial Conduct Authority
FoF	Fund of Funds
FR	French Republic
FSB	Financial Stability Board
FX	Foreign Exchange
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
LST	Liquidity Stress Testing
MMF	Money Market Fund
NCA	National Competent Authority
RCR	Redemption Coverage Ratio

RST	Reverse stress testing
UCITS	Undertaking for Collective Investments in Transferable Securities
UCITS RMP	UCITS Risk Management Process
UK	United Kingdom of Great Britain and Northern Ireland

Definitions

closed ended AIF	An AIF other than an open ended AIF (defined below).
depositary	Depositary of a UCITS or an EU AIF.
ex post a-LMT	Tools/measures applied by managers in exceptional circumstances to control or limit dealing in fund units in the interests of investors, including but not limited to suspension of dealing in units, deferral of dealing and side-pocketing.
fire sale price	Liquidation at material discount to fair value.
fund	A collective investment undertaking subject to the requirements of the UCITS Directive or that is managed by a manager subject to the requirements of the AIFMD.
liquidation cost	The cost paid by the seller of an asset for the execution of a given transaction in a timely manner for liquidity purposes.
liquidity mismatch	Where units/shares in a fund are dealt and settled in a shorter timeframe than its assets can be reasonably liquidated.
liquidity risk	The risk that a position in the fund cannot be liquidated at limited cost to comply at any time with obligations to redeem units/shares.
liquidity stress testing	Liquidity stress testing is a risk management tool within the overall liquidity risk management framework of a manager and refers to the simulation of a range of conditions, such as: normal and stressed (i.e. extreme, unlikely or unfavourable) conditions (in all cases plausible), to assess their potential impact on the funding (liability), asset, and overall liquidity of a fund, including on the potential necessary follow-up provisions to be implemented.

manager	(a) In relation to a UCITS, the UCITS management company or, in the case of a self-managed UCITS, the UCITS investment company; (b) In relation to an AIF, the AIFM or an internally-managed AIF; (c) In relation to an MMF, the manager of an MMF.
open ended AIF	An AIF meeting the criteria of Article 1 (2) of Commission Delegated Regulation (EU) No 694/2014[19].
pro-rata liquidation	A proportional liquidation of each asset in a portfolio that maintains the existing structure of the portfolio.
reverse coverage ratio	A measurement of the ability of a fund's assets to meet funding obligations emanating from the liabilities side of the balance sheet, such as a redemptions shock.
reverse stress testing	A fund-level stress test which starts from the identification of the pre-defined outcome with regards to fund liquidity (e.g. the point at which the fund would no longer be liquid enough to honour requests to redeem units) and then explores scenarios and circumstances that might cause this to occur.
special arrangements	Specific types of ex-post a-LMT measures available to some AIFs and which impact investors' redemption rights, such as side pockets or gates.
time to liquidity	An approach, whereby the manager can estimate the amount of assets which could be liquidated at an acceptable cost, for a given time horizon.
vertical slicing	See pro-rata liquidation.
waterfall liquidation	A liquidation of assets by selling the most liquid assets first.

[19] Commission Delegated Regulation (EU) No 694/2014 of 17 December 2013 supplementing Directive 2011/61/EU of the European Parliament and of the Council with regard to regulatory technical standards determining types of alternative investment fund managers.

2 Scope

Who?

1. These Guidelines apply to managers, depositaries and NCAs.

What?

2. These Guidelines relate to liquidity stress testing in UCITS and AIFs. In particular, in respect of managers they apply primarily in relation to Article 16(1) of the AIFMD, Articles 47 and 48 of the AIFMD Level 2 Regulation, Article 51 of the UCITS Directive, Article 40(3) of the UCITS Level 2 Directive and Article 28 of the MMFR. In respect of depositaries, these guidelines apply primarily in relation to Article 21 of the AIFMD, Articles 92 of the AIFMD Level 2 Regulation, Article 22(3) of the UCITS Directive and Article 3 of the UCITS Level 2 Regulation.

3. These Guidelines apply to UCITS and AIFs. The following should be considered while applying the Guidelines:

    a) ETFs are in-scope of these Guidelines, whether they operate as UCITS or AIFs.
    b) MMFs are in-scope of these Guidelines, without prejudice to more granular and/or prescriptive requirements under the MMFR and ESMA Guidelines exclusively applying to MMFs[20]. For clarity, in the event of any conflict between these Guidelines and MMFR and/or Guidelines exclusively applying to MMFs, those provisions exclusively applying to MMFs should prevail.
    c) Leveraged closed ended AIFs are in-scope of these Guidelines, consistent with obligations of such funds under the AIFMD.
    d) Where relevant, these Guidelines should be adapted to the nature, scale and complexity of the fund.

4. The topic of LST naturally overlaps with other aspects of liquidity management in funds, such as managing liquid and less liquid assets, diversification and implementing measures such as ex post a-LMT. These Guidelines are not intended to provide comprehensive guidance regarding liquidity management issues outside the scope of LST.

When?

5. These Guidelines apply from [dd month yyyy].

[20] Such as those ESMA Guidelines establishing common reference parameters of the stress test scenarios to be included in MMF managers' stress tests (currently referred to as 'ESMA34-49-115' https://www.esma.europa.eu/sites/default/files/library/esma34-49-115_mmf_guidelines_on_stress_tests.pdf)

Questions to stakeholders

Q2 Do you agree with the scope of these Guidelines? Should certain types of funds be explicitly excluded from these Guidelines? Should MMFs remain in-scope of these Guidelines?

Q3 Is additional clarity required regarding the scope of these Guidelines? Is additional clarity required regarding the meaning of 'nature, scale and complexity' of a fund? Are there circumstances in which it would, in your view, be inappropriate for a UCITS to undertake LST?

Q4 What are your views on when the Guidelines should become applicable? How much time would managers require to operationalise the requirements of these Guidelines?

3 Purpose

6. These Guidelines are based on Article 16(1) of the ESMA Regulation. The purpose of these Guidelines is to establish consistent, efficient and effective supervisory practices within the ESFS and to ensure the common, uniform and consistent application of Union law. In particular, their purpose is to increase the standard, consistency and, in some cases, frequency of LST already undertaken and promote convergent supervision of LST by NCAs.

4 Compliance and reporting obligations

Status of these Guidelines

7. In accordance with Article 16(3) of the ESMA Regulation, NCAs and financial market participants must make every effort to comply with these Guidelines.

8. Competent authorities to which these Guidelines apply should comply by incorporating them into their national legal and/or supervisory frameworks as appropriate, including where particular Guidelines are directed primarily at financial market participants. In this case, competent authorities should ensure through their supervision that financial market participants comply with the Guidelines.

Reporting requirements

9. Within two months of the date of publication of the Guidelines on ESMA's website in all EU official languages, competent authorities to which these Guidelines apply must notify ESMA whether they (i) comply, (ii) do not comply, but intend to comply, or (iii) do not comply and do not intend to comply with the Guidelines.

10. In case of non-compliance, competent authorities must also notify ESMA within two months of the date of publication of the Guidelines on ESMA's website in all EU official languages of their reasons for not complying with the Guidelines.

11. A template for notifications is available on ESMA's website. Once the template has been filled in, it shall be transmitted to ESMA.

12. Financial market participants are not required to report whether they comply with these Guidelines.

5 Guidelines on Liquidity Stress Testing in UCITS and AIFs

Introduction

13. LST is one tool in a suite of many tools to manage fund liquidity. As these Guidelines specify, LST is not an exercise to be taken in isolation, it necessarily relies on being integrated into the overall liquidity risk management process of an investment fund. The Guidelines are drafted to reflect that redemptions are not the only potential risk to a fund's liquidity, and that liquidity may dry up due to risks on either the assets or the liabilities side of the balance sheet, or both.

14. The Guidelines do not propose a uniform or 'one size fits all' approach to LST in all UCITS and AIFs, in part due to the heterogeneity of strategies, liquidity profiles (arising from both assets and liabilities), and liquidity management tools available across the diverse range of funds within these groupings.

15. Further, these Guidelines recognise that there are a variety of methods which can be used to build LST models and determine the normal and stressed market conditions employed within them. Managers should determine:

    - which risk factors may impact the fund's liquidity;
    - which scenarios to utilise;
    - the severity of the stress scenarios to employ;
    - different outputs and indicators to be monitored following the exercise, and how they are reported via management information; and
    - how the result of the LST is utilised and acted upon by risk managers, portfolio management and senior management.

16. A manager should strike a balance between employing:

    - LST that is adequately focused, specific to the fund, highlights the key liquidity risk factors, and can therefore be acted upon.
    - A wide enough range of scenarios which adequately reflect diverse risks.

17. As a result, the following Guidelines focus on providing high-level requirements for managers to implement an appropriate and effective LST approach for their funds to support the overall risk management process. Managers should use these principles-based Guidelines to help incorporate LST into their risk management and governance frameworks. The Guidelines in section 5 are supported by explanatory considerations in sections 6-11. For additional clarity, at the start of sections 6-11 there are cross references to the Guidelines to which the explanatory considerations are most applicable.

Guidelines for LST

18. Whilst there are a range of approaches that may be taken, in all cases the Guidelines set out in this section should be applied by managers and depositaries (as applicable) and supervised by NCAs.

Guidelines applicable to managers

Guideline 1	LST should be properly integrated and embedded into the fund's risk management framework supporting its liquidity management. It should be subject to appropriate governance and oversight, including being subject to appropriate reporting and escalation procedures.
Guideline 2	LST should be documented in an LST Policy, which should require the manager to periodically review and adapt (if necessary) its LST programme and models as appropriate. It should also be documented within the UCITS RMP and the AIF RMP.
Guideline 3	LST should demonstrate a manager has a strong understanding of the liquidity risks arising from the assets and liabilities on the fund's balance sheet, and its overall liquidity profile.
Guideline 4	LST should be conducted at least annually and employed at all stages in a fund's lifecycle, where appropriate. It is recommended that a more frequent programme of LST be employed, quarterly or even more frequently if required by the characteristics of the fund. Flexibility is allowed for on this issue dependent on the nature, scale and complexity of the fund and its liquidity profile.
Guideline 5	LST should provide outcomes which can be used to: a. Help ensure the fund is sufficiently liquid, as required by applicable rules and redemption terms stipulated in fund documentation. b. Strengthen the ability of managers to manage fund liquidity in the best interests of investors, including in planning for periods of heightened liquidity risk. c. Help identify potential weaknesses of an investment strategy, and assist in investment decision making.

d. Assist risk management monitoring and decision-making, including setting relevant limits regarding fund liquidity. This may include ensuring the results of LST can be measured through a comparable metric, such as a key risk indicator.

Guideline 6 LST should assist a manager in preparing a fund for a crisis, and its broader contingency planning. This contingency planning may involve a manager's plans to operationalise applying ex post a-LMT on a fund.

Guideline 7 LST should be applied to in-scope UCITS and AIFs and adapted appropriately to each fund, depending on its nature, scale and complexity, including by adapting:

The frequency of LST (as per Guideline 4).

a. The types of scenarios employed to create stressed conditions, which should always be sufficiently severe, but plausible.
b. Assumptions regarding investor behaviour (gross and net redemptions) and asset liquidation.
c. The complexity of the LST model, which should account for the complexity of the fund's investment strategy.

Guideline 8 LST should employ hypothetical and historical scenarios, and reverse-stress testing. In doing so it should not overly rely on historical data, particularly as future stresses may differ from previous ones.

Guideline 9 LST should demonstrate a manager is able to overcome limitations related to the availability of data, including by:

a. Avoiding unjustifiably optimistic assumptions.
b. Avoiding unjustifiable reliance on third parties' LST models, including where the model is developed by a third party portfolio manager.
c. Exercising qualitative judgement where appropriate.

Specific to stress testing fund assets to determine the effect on fund liquidity

Guideline 10 LST should enable a manager to assess not only the time and/or cost to liquidate assets in a portfolio, but also whether such an activity would be permissible given:

a. The objectives and investment policy of the fund.
b. The obligation to manage the fund in the interest of unitholders.
c. Any applicable obligation to liquidate assets at limited cost.
d. Any obligation to maintain the risk profile of the fund following liquidation of a portion of its assets.

Specific to stress testing fund liabilities to determine the effect on fund liquidity

Guideline 11 LST should incorporate scenarios relating to the liabilities of the fund, including both redemptions and other types of potential sources of risk to liquidity emanating from the liability side of the fund balance sheet (where applicable).

Guideline 12 LST should incorporate risk factors related to investor type and concentration, where appropriate, according to the nature, scale and complexity of the fund

Combined asset and liability LST

Guideline 13 Managers should combine the LST undertaken on both the assets and liabilities side of the fund balance sheet to determine an overall effect on fund liquidity.

Guideline 14 Aggregate LST should be undertaken by managers where appropriate.

Guideline applicable to depositaries

Guideline 15 Depositaries should verify a fund has documented procedures for its LST programme. This could include reviewing the UCITS RMP and/or AIF RMP to confirm that the manager carries out LST on the fund.

Questions to stakeholders

Q5 Do you agree with the proposed approach of setting out a list of Guidelines all funds should follow, and the provision of explanatory considerations to help managers comply with those Guidelines? Do you see merit in including some of the explanatory considerations in the final Guidelines?

Q6 Do you agree with the proposed Guidelines? What amendments, if any, should ESMA make to its proposed Guidelines?

6 Explanatory considerations: LST on the assets side of the balance sheet

Applicable Guidelines: 3, 7, 8, 9, 10

Objective

19. LST on the asset side involves an assessment of the existing asset liquidity risk and the simulation of worsening asset liquidity due to a deterioration of market conditions. The intention of this practice is to model the potential effect that the stress could have on the overall liquidity of the fund, as asset liquidity can be a significant risk to the overall liquidity of a fund, independent of other factors such as redemptions. This exercise should reflect both normal and stressed market conditions.

Background

20. The simulation of declines in asset liquidity can be a challenging and multifaceted exercise. Different portfolio assets with distinct liquidity profiles can be affected in different ways by deteriorating market conditions. Further, data relevant to liquidity of many assets can be difficult to access.

21. Given these and other factors, the purpose of asset stress testing is to provide a reasonable simulation of the plausible potential effects of deteriorating asset liquidity on the overall liquidity of the portfolio.

22. This section provides examples of different methods of modelling asset liquidation. These are not all encompassing and do not advocate the use of one method over another. However, a manager should choose the method used with due consideration. This decision should be informed by the assets (but also the liabilities) and the redemption terms of the fund, rather than a uniform method employed across all funds operated by the manager (unless justifiable). Further, the manager should also be aware of the method's limitations, document these limitations and any assumptions used, and make conservative adjustments to its broader liquidity risk management to mitigate these limitations.

23. An important outcome of this exercise is to provide managers with indications and examples which will help them to proactively assess where:

    - It would no longer be possible to sell some assets and remain in compliance with the fund objectives and investment policy. In this case, particular regard should be paid to the appropriate asset liquidation method.
    - It would be impossible to sell some assets, except at such a discount so as to no longer be in the interests of unitholders. A distinction should be made between selling assets at market value into a depressed market (which may be reasonable), and selling assets at a fire-sale price solely to provide liquidity to the fund, which may not be in the interests of unitholders.

- Assets could no longer be valued reliably and it would no longer be reasonable to continue to deal in fund units.

Approach to liquidating assets: liquidation cost and time to liquidity

24. Broadly, these are the two principal approaches typically employed by managers to simulate the liquidity of portfolio assets in normal and stressed conditions. The appropriate method should be employed for the individual fund, in accordance with the overarching Guidelines governing this section. Other approaches may (and should) be adopted as appropriate to the fund.

25. **Liquidation cost**. This can be defined as the cost paid by the seller of an asset for execution of a transaction in a timely manner. Therefore, liquidation cost depends on the following three factors: asset type, liquidation horizon and size of the trade/order. Managers should consider these three factors when assessing the liquidation cost of their assets, under normal and stressed market conditions:
    - Asset type. The higher liquidity of some assets versus others (e.g. large-cap equities compared to high yield bonds)
    - Liquidation horizon. The typically inverse relationship between liquidation cost and liquidation horizon.
    - Trade size. A convex relationship may exist between trade size and liquidation cost, where liquidation cost decreases as trade size increases before reaching an inflexion point, and it starts increasing as trade size increases.

26. **Time to liquidity.** Instead of calculating liquidation cost, some managers estimate the time to liquidity for all the assets in the portfolio (construction of 'liquidity buckets'). With this approach, the manager can estimate the amount of assets which could be liquidated at an acceptable cost, for a given time horizon.

Stressed Conditions

27. Under stressed market conditions, financial markets typically exhibit higher volatility and lower liquidity. Therefore, liquidity metrics such as bid-ask spreads and price impact measures are likely to increase, usually in a similar way as a market volatility index (e.g. the VIX). Time to liquidate may also increase, dependent on the asset class. Managers should reflect various market stresses in the estimation of the liquidation cost and time to liquidation under such stressed conditions. In this context, managers should not only refer to historical observations of stressed markets.

28. **Scenarios**. Managers should employ historical, hypothetical scenarios as well as reverse stress testing. Scenarios should be appropriately chosen to achieve the effect of deteriorating liquidity on the assets of the portfolio, be it in terms of cost of liquidation, time to liquidation or other method.

    - **Historical scenarios.** E.g. internet/dotcom crisis 2000/2001, terrorist attacks of 2001 (9/11), global financial crisis 2008/10, European debt crisis 2010/12.

- **Hypothetical scenarios.** E.g. material increase of interest rates, widening of credit spreads, increased market volatility, but also significant political events, sector or firm specific events as well as natural disasters, amongst others.

- **Reverse stress testing**. A fund-level stress test which starts from the identification of the pre-defined outcome with regards to fund liquidity (e.g. the point at which the fund would no longer be sufficiently liquid to honour requests to redeem units) and then explores scenarios and circumstances that might cause this to occur.

  a) RST can be used to establish whether action needs to be taken to ensure the fund is adequately liquid, or whether such a circumstance would be exceptional enough to enable suspension to be imposed in compliance with applicable rules[21].

  b) An AIF may, where appropriate, also use this exercise to simulate what level of assets may be liquidated before implementing 'special arrangements' allowed by its redemption policy and national rules[22].

  c) In all cases, managers using RST should simulate assets being liquidated in a way that reflects how the manager would liquidate assets during a period of exceptional market stress, e.g. giving due regard to the treatment of remaining, as well as redeeming, unitholders. As result, due regard should be given to how assets would be liquidated during market stress, including the role of transaction costs and whether or not material discounts (fire sale prices) would be accepted.

  d) Funds that engage in investment strategies exposing them to low-probability risks with a potentially high impact should pay particular regard to the use of reverse stress tests in order to assess the consequence of an extreme market event on their liquidity profile.

[21] 'Exceptional circumstances' envisaged by Article 84(2)(a) Directive 2009/65/EC, applicable national rules, and the fund's prospectus

[22] Recital 59, Commission Delegated Regulation (EU) No 231/2013

Data availability

29. Guideline 9 regarding overcoming limitations relating to the availability of data is particularly applicable to modelling the liquidation of assets, as data on asset liquidity may be scarce. Managers should adapt their approach as appropriate where data is limited. This may require validation of the assumptions made, for example by discussing with market-facing agents, such as internal or external trading desks and/or brokers or utilising third party data services. In all cases the manager should ensure that any assumptions used are adequately validated. Any such assumptions, their rationale and how frequently they are revisited, should be adequately documented and justified.

30. Appropriate reductions in asset liquidity should be simulated in times of both normal and stressed market conditions, particularly where historical data does not provide sufficiently severe examples of stressed conditions. In all cases it should not be assumed that the portfolio can be liquidated at the full average daily traded volume of an asset unless such an assumption can be justified based on empirical evidence.

31. Assumptions made and implemented in the LST finally chosen by the manager should also be properly evidenced and documented within the overall liquidity risk management approach, to allow transparency across the whole governance structure.

Asset liquidation method

32. The method of liquidating assets in a LST should always:

- Accurately reflect how a manager would liquidate assets during normal and stressed conditions in accordance with applicable rules, either legal requirements (according to UCITS Directive), or self-limitations via prospectus.
- Ensure the modelled fund is and stays in compliance with its objectives and investment policy and fund rules.
- Reflect the fund being managed in the interest of all investors, both those redeeming and remaining.
- Comply with applicable obligations for the fund to maintain the risk profile envisaged by fund documentation.
- Be reflected in the LST policy.

33. Whilst literature on this topic tends to focus on funds liquidating either using a ‘pro-rata’ (also referred to as ‘vertical slicing’) approach or a ‘waterfall’ approach, these Guidelines avoid the use of those terms. This is in order to acknowledge how funds are managed in practice, and in accordance with applicable rules, such as regulatory rules (e.g. diversification rules under UCITS) or self-set limits (e.g. specific “self-set” prospectus rules). As an example, an AIF investing in real estate or infrastructure could over a short period (say, 60 business days) primarily meet redemptions by utilising its most liquid assets, but within that same time period also liquidate a material level of less liquid real estate assets. (Assuming such an approach was allowable by its prospectus rules.) In this case, it may not be helpful to categorise this approach as ‘vertical slice’ or ‘waterfall’. This is because a compliant fund liquidates assets in accordance with the criteria outlined in paragraph 32 and not according to the strict parameters defined by categorising liquidation as either ‘vertical slice’ or ‘waterfall’.

34. As a result, LST models should reflect how a manager would and does liquidate assets during normal and stressed conditions. The approach chosen should always be compliant with applicable rules, as previously mentioned.

Difficult-to-model parameters

35. Stressed market conditions can lead to dislocations in asset prices and insufficient price transparency, particularly where markets are illiquid even in ‘normal’ conditions.

36. **‘Second round effects’**. In stressed market conditions, it has been hypothesised that high investor redemptions could force funds to liquidate assets into those markets, that this activity could represent a large enough proportion of market activity that downward price spirals could be triggered. Price spirals could be perpetuated by a feedback loop caused by, and causing, more redemptions. The concept that this price spiral could arise is known as ‘second round effects’[23].

37. The concept of second round effects is not without contention. The Guidelines do not engage in this debate, but rather focus on incorporation of it into managers’ LST simulations. A manager should accurately reflect how it would liquidate assets during normal and stressed conditions. For example, if a manager’s typical approach would be that it would not be in the interest of the fund or its investors to materially move markets through asset sales and/or accept ‘fire sale’ prices, the LST should reflect the alternative action the manager would take.

[23] IMF Working Paper, ‘Liquidity Stress Tests for Investment Funds: A Practical Guide’ page 5

38. **Price uncertainty.** Stressed market conditions can lead to uncertainty over asset prices. This can be a particular risk when a market-changing event occurs and there has been insufficient trading in assets to reflect the 'correct' market value for assets in these new conditions. Funds investing in less liquid assets, and funds of funds, where one of the funds held in the portfolio is not able to be priced, may be particularly vulnerable to this kind of event.

39. Price uncertainty is 'hard to model' because calculations on time to liquidate or cost of liquidation naturally rely on a price in order to function. Therefore, one employment of this concept in a stressed scenario could be that the fund is not able to liquidate a portion of assets at all during a period where market stress results in insufficient clarity of asset values. As a result, managers should pay particular regard to the following when considering the role of price uncertainty in their LST models:

- The interaction with the manager's contingency planning and how the manager will react to a material level of assets in the portfolio experiencing price uncertainty.
- In the case of AIFs, price uncertainty may be a material input into the determination of when a fund implements special arrangements or suspensions, where such measures are allowed for by applicable rules (including national rules), the redemption policy and the prospectus.

Funds investing in less liquid assets: additional considerations

Introduction

Amongst the broad spectrum of assets invested in by funds, this section provides specific considerations for managers regarding LST for funds investing less liquid assets. This is principally because funds investing in less liquid assets have inherently less flexibility to improve overall liquidity by selling assets at a limited discount during periods of stressed market conditions. Therefore, the outputs from LST by managers of less liquid assets may have some particular distinctions.

Without prejudice to the development of guidance on the definition of less liquid assets by applicable authorities, including ESMA, this section uses real estate and infrastructure as examples of less liquid assets. This is not an exhaustive list of examples, and a manager should monitor the liquidity of assets in a fund portfolio and amend its own categorisations as appropriate. The liquidity of underlying assets can change across time, especially in stressed market conditions. Funds investing in less liquid assets are often, but not exclusively, AIFs.

FoFs which gain indirect access to less liquid assets via other funds should pay due regard to the considerations in this section. This is because the underlying exposure of those target funds may lead to the suspension of the target investment vehicle, or other measures. This may have an impact on the FoF's liquidity. As a result, FoFs' LST models should take this risk into account.

Particular considerations when undertaking LST in funds invested in less liquid assets

- **Distinct assets and liabilities.** Many funds invested in less liquid assets have distinct risks emanating from both assets and liabilities, compared to funds investing in more liquid securities. For example, many AIFs investing in real estate have less frequent dealing periods and notice periods which reduce liabilities risk from redemptions. However, such funds are also exposed to distinct liabilities risk arising from servicing and maintaining real estate assets (including hard to simulate risks such as legal risks). Atypical asset and liability risks must be duly understood and reflected in the LST of a fund and/or its risk management.
- **Scenario testing.** Managers should pay particular regard to low probability, high impact scenarios, including the potential difficulty of reliably pricing less liquid assets during a period of market stress. Less liquid assets may be particularly vulnerable to liquidity drying up in times of market stress, affecting time to liquidity, cost of liquidating, and also whether or not assets would be liquidated at all when taking investors' best interests into consideration. Reverse stress tests may be a particularly valuable tool in this context, helping to identify scenarios which could lead to significant fund liquidity risk (e.g. identifying scenarios which would lead to the imposition of special arrangements or suspensions).
- **Frequency.** Managers should pay particular regard to the appropriateness of the frequency of LST in funds investing in less liquid assets. For example, managers may consider prioritising undertaking ad-hoc LST on funds investing in less liquid assets, where a forthcoming event has been identified which could negatively impact fund liquidity.
- **Liquidation of assets.** The nature of a less liquid asset base can place even more emphasis on funds ensuring that investors are treated impartially during stressed market conditions. LST could therefore help a manager to establish a governance framework seeking to support fair outcomes for all investors by helping model a fair method of liquidating assets.
- **Outcomes from LST.** LST may be particularly useful in establishing the parameters under which such funds would be likely to implement special arrangements (AIFs) and suspensions (all funds), where allowed for under applicable rules, including under the prospectus. It should also provide sufficient time for a manager to adapt its contingency planning to help mitigate the operational risk from such events.

Questions to stakeholders

Q7	**Do you agree with the explanatory considerations regarding LST of fund assets?**
Q8	**What are your views on the requirement to undertake reverse stress testing, and the use of this tool?**
Q9	**Do you see merit in providing further considerations for managers on the use of data relevant to asset liquidity, particularly in circumstances when data is scarce?**
Q10	**Do you agree with ESMA's wording regarding the asset liquidation method used in the LST model? How would you describe the asset liquidation method used by you or the managers you represent?**
Q11	**Do you agree with ESMA's wording regarding 'second round effects'? What is your current practice regarding modelling 'second round effects'?**
Q12	**What are your views on the considerations on difficult to model parameters, such as price uncertainty? What is your current practice concerning this issue?**
Q13	**Do you agree with ESMA's considerations on LST in funds investing in less liquid assets? What amendments should be made to the proposed wording? Do you think that ESMA should outline additional and/or specific considerations to be made in any other fund or asset types, such as ETFs?**

7 Explanatory considerations: LST on the liabilities side of the balance sheet

Applicable Guidelines: 3, 7, 8, 10, 11, 12

Objective

40. LST of liabilities requires the simulation of deteriorating liquidity in a fund within a given time period emanating from the liabilities side of the balance sheet. This is usually due to unitholder redemptions, but also potentially due to other liabilities owed. This exercise should reflect both normal and stressed market conditions.

Background

41. Redemption requests, especially when larger and/or earlier than anticipated, are the most common and typically most important (but not only) source of liquidity risk for investment funds. However, assets pertaining to unitholders may not be the only potential source of liquidity risk on the liabilities side of a fund balance sheet. The different types of liabilities on a fund's balance sheet and their potential impact on fund liquidity varies according to the fund. Some (non-exhaustive) examples are found in the table below paragraph 47.

42. Any LST exercise by a manager first requires a thorough understanding of the types of liabilities the fund is subject to and the nature of risks affecting liquidity arising from the particularities of the liability. This understanding extends to how the risk may be managed should it materialise. For example, AIFs (where such measures are allowed and available) may employ suspensions or special arrangements. UCITS may, where national law provides and in exceptional circumstances only, also suspend redemptions. However, whilst these measures effectively halt one source of deteriorating fund liquidity, there are other situations where such measures have limited impact. This concept is explored further in paragraphs 48-50.

Scenarios – net redemptions

43. **Normal scenarios.** Managers should stress test scenarios under both normal and stressed conditions. Under normal conditions, managers could monitor the historical outflows (average and trends across times), average redemptions of peer funds and information from any distribution network regarding forecast redemptions. Managers should ensure that the time series is long enough to fairly reflect 'normal' conditions.

44. **Stressed scenarios.** In stressed conditions, several scenarios are conceivable. Some examples are below.

- **Historical trends.** Scenarios based on historical redemptions trends (specific to the fund). A period of redemptions which is stressed compared to historical data.

- **Historical events**. Redemptions during a stressed scenario, such as the Global Financial Crisis or the 9/11 terrorist attacks.
- **Contemporary market trends in peer funds.** During stressed market conditions peer funds may be experiencing high net redemptions. Equivalent stressed outflows could be simulated in the manager's fund.
- **Hypothetical/Event-driven scenarios** (such as political risk, change of portfolio manager, largest investor redemption etc). Potential effect on fund liquidity caused by an event which may cause enhanced redemptions e.g. a referendum or election result leading to changing economic conditions.
- **Reverse stress testing** of redemptions. Managers should start from the identification of a pre-defined outcome (e.g. the point at which the fund would no longer be able to honour redemption requests) and then explore scenarios and circumstances that might cause this to occur.

Incorporation of investor behavioural model/analysis

45. Depending on the availability of granular historical data covering redemptions for each investor type and other information relative to a fund's specific distribution, managers could also simulate redemption requests for different types of investors. Typically, this exercise is appropriate, although there may be circumstances where it may not be[24].

46. Ultimately, the manager must decide the extent to which variables arising from additional factors such as investor behaviour can or should be incorporated into their scenarios in the LST model. The decision on the granularity/depth of analysis/use of data is subject to necessity and proportionality, bearing in mind the nature, scale and complexity of the fund. While not all variables might be incorporated into the LST model, managers are recommended to consider them as part of the broader liquidity risk management of the fund, managers should:

    - understand the potential risks associated with the fund's investor base; and
    - be able to demonstrate that those risks play a material factor in the ongoing liquidity risk management of a fund

[24] An example of such a circumstance may be where the fund has one institutional investor, who usually cooperates with the Manager concerning its intention to subscribe and redeem units.

47. The below table outlines some examples of the types of factors regarding investor behaviour which may be incorporated into the LST model.

Factor	Examples of potential liquidity risk	Examples of potential incorporation into LST
Investor category	Redemption risk may vary by type of investor. For example, the likelihood of redeeming during stressed conditions could be categorised according to whether investors are wealth managers, pension schemes, direct retail investors, or other UCITS or AIFs.	Based on the manager's knowledge and experience of their clients, the LST model may simulate, for example, funds of funds posing more redemption risk than other types of investors, and simulate their withdrawal from the fund first
Investor concentration	One or more investors may own a materially larger proportion of the fund than others, leading to a particular risk to fund liquidity from the investor(s) redeeming.	The manager may model one or a number of the largest investors redeeming simultaneously from the fund over a given period of time[25].
Investor origin	Investors based in different regions or countries may pose distinct redemption risk due to idiosyncratic factors linked to the political, economic or other factors relating to their region of origin. For example, investors from a region subject to different monetary policy may pose distinct redemption risks during periods of changes in FX and/or interest rates. Political and/or economic risks may also lead investors from other regions/countries to redeem.	The manager may simulate a material proportion of investors originating from a specific country redeeming over a given time period first.
Investor strategy	Whilst many investors' strategies are long-term and, in any case, challenging to unpick, some investors follow formulaic or pre-defined strategies that may pose particular redemptions risk in changing market conditions. For example, some funds explicitly seek to target a level of	The manager may simulate redemptions from investors following similar strategies in stressed and normal market conditions.

[25] This exercise may have limited utility where the fund has only one institutional investor that cooperates with the manager concerning intentions to subscribe and redeem units.

	risk, as measured by volatility, and are identifiable as such via their fund names and stated investment objectives. Such funds often seek to de-risk during volatile periods and may pose heightened redemption risk during periods of volatility in given asset classes. Where funds with formulaic or pre-defined strategies are investors, the manager may need to pay due regard to the liquidity risk such funds pose during stressed and normal market conditions.	

LST on other types of liabilities

48. As outlined above in paragraph 42, net redemptions may not be the only relevant risk to liquidity coming from the liability side of a fund's balance sheet and which therefore should be subject to LST. The table below outlines some other factors that may be stressed for other liabilities the fund may owe (the list is not exhaustive). A manager should include these types of liabilities in its LST (including in normal and stressed conditions) where appropriate.

49. Managers should be cognisant of the Guidelines outlined in section 5 when incorporating these risks into their overall LST framework. In some cases, LST should enable a fund to understand whether liquidity risk could in fact not be mitigated, for example a level of margin calls the fund would not be able to fund. Its contingency planning should adequately reflect this, and help it to mitigate the liquidity risk in such circumstances.

50. All relevant items on a fund's liabilities side of the balance sheet, including items which are not redemptions, should be subject to LST using historical and hypothetical scenarios, as well as reverse stress testing.

Liability type	Examples of factors which may affect liquidity risk	Potential events which may be simulated
Derivatives	Changes in the value of the underlying may lead to derivative margin calls, affecting the available liquidity of the fund	Simulation of a change in the value of the underlying of the derivative leading to larger than anticipated margin call
Committed capital	Funds investing in real or immovable assets are often required to commit capital to service the investment, such as	Simulation of unexpected event causing new/higher

	maintenance or refurbishment costs	outlay of capital to a real estate investment
Securities Financing Transactions / Efficient Portfolio Management	Funds lending out assets are exposed to counterparty risk of the borrower and the associated liquidity risk arising from potential default. Whilst this can be mitigated by the collateral posted, liquidity risk is not eliminated (bearing in mind the liquidity of the collateral).	Simulation of default of the counterparty to a securities lending operation. Simulation of cash collateral reinvestment risk
Interest/credit payments	Funds which incorporate leverage into their investment strategy are subject to liquidity risk arising from factors such as interest rate sensitivity	Simulation of increased interest rates on the payment obligations of the fund

Questions to stakeholders

Q14 Do you agree with the considerations regarding LST on items on the liabilities side of a fund's balance sheet?

Q15 Do you agree with the considerations specifying the LST of redemptions and other types of liabilities may need to be considered distinctly, given a fund could potentially limit redemptions but not other sources of liquidity drain?

Q16 Do you agree with the requirement to reverse stress test items on the liabilities side of the fund balance sheet?

Q17 Do you agree with the requirement to incorporate investor behaviour considerations into the LST model 'where appropriate'? Are there cases in which you believe it would not be appropriate, and should these be detailed in these Guidelines?

8 Explanatory considerations: combined asset and liability LST

Applicable Guidelines: 3, 7, 13, 14

Combining both sides of the fund balance sheet

51. After stress testing the assets and the liabilities of the fund, managers should combine both outcomes to derive an overall conclusion. There are different ways to derive a conclusion by combining LST on the assets and liabilities sides of the balance sheet, for example:

- Calculating a redemption coverage ratio (RCR)[26] which measures the ability of the fund's most liquid assets to meet short term liabilities (such as a redemptions shock).
- Quantifying cost of asset liquidation to meet liabilities[27].
- Quantifying the time needed to honour a redemption request at a limited liquidation cost.

52. Managers are not compelled by the Guidelines to choose one method over another. A different method can and should be used where appropriate to the fund. However, the manager's chosen approach should be explained and documented in the LST policy

Comparing LST results from more than one fund

53. LST of an individual fund assists in the risk management of one investment vehicle. An outcome of combined asset and liability LST may be a comparable metric or score, for example based on the RCR. Where one fund operated by the manager can be compared to another using such a metric, it can be a meaningful risk indicator for senior management. This is also known as 'risk scoring' or a 'multi-criteria approach'[28].

54. It can assist in the assessment of:

- Which funds present the largest liquidity risk at a given moment, considering liquidity risk on both the assets and liabilities sides. This can have a material role in a manager's contingency planning for a crisis. For example planning for the impact of crystallised liquidity risk in one or more funds at firm-level[29].

[26]For more information, see IMF Working Paper, 'Liquidity Stress Tests for Investment Funds: A Practical Guide' pages 17-19
[27] For more information, see Guide to the use of stress tests as part of risk management within asset management companies, AMF, Pages 17-18
https://www.amf-france.org/en_US/Publications/Guides/Professionnels?docId=workspace%3A%2F%2FSpacesStore%2F8e10f441-056c-4809-9881-36c23a292200
[28] For more information, see Guide to the use of stress tests as part of risk management within asset management companies, AMF, Page 18 and Liquidity stress testing in German asset management companies, BaFin, pages 29-31 https://www.bafin.de/SharedDocs/Downloads/EN/Anlage/dl_anlage_bericht_liquiditaetsstresstest_en.pdf?__blob=publicationFile&v=2
[29] As per page 31, Recommendation of the European Systemic Risk Board on liquidity and leverage risks in investment funds (ESRB/2017/6)

- In cases where fund scores/metrics change materially in given timeframe, it can assist in the set-up of an alert system to assess whether action on a fund's liquidity is required

55. Managers should incorporate risk scoring into their LST programmes where such a measure can enable them to enhance their understanding of liquidity across funds they manage, enhance their contingency planning and prepare operationally for a liquidity crisis.

Aggregation of LST across funds

56. Managers should aggregate LST where their assessment is that such an activity would be appropriate to the fund(s) under management.

57. This practice involves utilising the same liquidity stress test on more than one fund with similar strategies or exposures. It may be useful when considering the ability of a less liquid market to absorb asset sales were they to occur concurrently in funds operated by the manager. This may be particularly pertinent when funds operated by the manager own a material level of assets in a given market. Aggregation of LST may allow the manager to better ascertain the liquidation cost or time to liquidity of each security, by considering the trade size, stressed market conditions and counterparty risk.

<u>Questions to stakeholders</u>

Q18 What do you think about ESMA's Guideline stating that managers should combine LST results on both sides of the balance sheet?

Q19 What are your views on ESMA's Guideline that aggregation of LST should be undertaken where deemed appropriate by the manager?

Q20 What is your experience of performing aggregated LST and how useful are the results?

https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation180214_ESRB_2017_6.en.pdf?723f0fa99b1e8886e651e4950d2a55af

9 Explanatory considerations: use of LST during a fund's lifecycle

Applicable Guidelines: 4, 5, 6, 7

Fund launch

58. During product development, a manager of a fund which requires authorisation from an NCA should be able to demonstrate to NCAs that key elements of the fund, including its strategy and dealing frequency, are reasonably likely to enable it to remain sufficiently liquid during normal and stressed circumstances. NCAs may at their discretion request submission of a manager's LST in order to help demonstrate a fund will be likely to comply with applicable rules, including regarding the ability of the fund to meet redemption requests in normal and stressed conditions.

59. At product development stage a manager should undertake LST on the asset side (using a model portfolio) as well as on the liability side incorporating the expected investor profile at early stages of fund existence and, separately, anticipated future investor profile.

60. LST can also be used to help identify factors material to the future risk management of the fund:

   - Where possible, LST should be used to help quantify the sensitivity of the fund's liquidity risk to each identified risk factor.
   - Identifying direct and indirect factors which could impact the liquidity risk of the fund on the asset or liability side, including the types of circumstances where liquidity risk might crystallise.
   - Where appropriate, identifying the types of metrics/key risk indicators to be used to monitor liquidity risk going forward. For example, setting a threshold for the levels of net redemptions or the reduction in portfolio asset liquidity in a given time period which would lead to enhanced oversight by Risk Management.
   - The frequency at which the fund is subject to review by regular risk management, for example LST may help a manager determine that a less liquid fund should be subject to more frequent Risk Committee review than, for example, a fund investing in large-cap global equities.
   - Assessment of which, if any, ex post a-LMT measures should be included as tools in the prospectus, to help the manager understand in which circumstances they may need to be used. In the case of AIFs, it can be used to assess the appropriateness of special arrangements.

61. At fund launch, LST should be incorporated into the manager's overall risk management process, by including references to the LST in the UCITS risk management process and the AIFM's risk management policy (see section 11). Where a fund is seeking authorisation, the manager may be requested by the applicable NCA to submit the LST[30].

Use of LST on an on-going basis

62. Examples of where LST may be used on an ongoing basis following fund launch are:

- Regular fund review by risk management, including monitoring changes in risk, for example across time and especially compared to product launch assumptions.
- When considering any adjustments to investment fund strategy and investment decisions, including examining the potential change in fund liquidity from the proposed changes, where appropriate.
- Planning for foreseeable risks relating to fund liquidity. Where forthcoming events are reasonably expected to have a material impact on fund liquidity, managers should prepare accordingly by incorporating such events into LST. The timing of such events may call for LST to be undertaken on an 'ad-hoc' basis, outside of the usual scheduled frequency, in order to address upcoming risks in a timely manner.

LST during periods of liquidity stress

63. During a period of enhanced liquidity stress, LST can play a meaningful role in a manager's response to such events. LST should serve the role of assisting:

- The manager's efforts to ensure the fund remains liquid during the stressed conditions in compliance with its obligations, such as complying with its investment policy and objectives.
- The manager's contingency planning: outputs from LST may be incorporated into the manager's existing contingency plans. These documented procedures may assist a manager in defining when it would implement ex-post LMT measures such as fund suspension (or special arrangements for an AIF) with a view to ensuring such measures comply with applicable rules and mitigate the operational risk from implementing these measures.

[30] At the discretion of the applicable NCA

LST following fund suspension and/or implementation of special arrangements

64. During the use of suspension or limitation of redemption and prior to reopening a fund, LST may be used to model the potential effect of reopening the fund and/or removing limitations to redemptions, and to therefore determine whether it is reasonable to reopen and return the fund to normal dealing activity.

LST in preparation for fund closure and liquidation

65. LST can also be a tool in helping to prepare for the liquidation of a fund, such as in the case of closed ended funds reaching maturity. LST can have a relevant role in modelling the sale of assets within a determined period, given potential market conditions. This can therefore assist the manager in modelling when investors are likely to have their assets returned. However, it is not a requirement to use LST for this purpose, and other methods may be utilised to achieve the same outcome.

Questions to stakeholders

Q21 What are your views on ESMA's considerations concerning the use of LST during a fund's lifecycle?

Q22 What is your experience of the use of LST in determining appropriate investments of a fund?

Q23 In your view, has ESMA omitted any key uses of LST?

10 Explanatory considerations: frequency of LST

Applicable Guidelines: 4, 7

Recommended frequency

66. LST needs to be carried out at a certain frequency in order to be a meaningful part of a manager's risk management framework. LST should be undertaken at a frequency consistent with applicable rules and these Guidelines. The manager should assess the nature, scale and complexity of the fund, including the investment strategy, liquidity of assets held, type of investor and redemption policy in determining the appropriate frequency of LST.

67. Bearing in mind the flexibility allowed for deciding the frequency of LST, the following should be noted when considering ESMA's recommendations regarding LST frequency:

    - A manager should determine if more or less frequent LST is required. The rationale should be properly justified and documented. In all cases LST should be undertaken at least annually, preferably at least quarterly or more frequently dependent on the characteristics of the fund.
    - The liquidity of a fund is to be determined by the manager. The liquidity of assets can change and as a result so should the frequency of LST be adapted as deemed necessary by the manager.
    - The appropriate frequency of LST should be adapted to the fund, rather than a 'one-size-fits-all' approach being taken to all funds operated by the manager
    - In the case of an AIF, the nature of the vehicle (closed versus open ended), the redemption policy and special arrangements allowed for, such as gates or side pockets, may be additional factors to take into consideration when determining the appropriate frequency of LST

Recommended frequency of LST	• **Quarterly**, unless a higher or lower frequency is justified by the characteristics of the fund. Justification should be recorded in the LST policy.
Factors which may <u>increase</u> the frequency of regular LST	• Higher unit dealing frequency. • Increased risks emanating from liabilities, such as a concentrated investor base. • Complex investment strategy (e.g. extensive use of derivatives). • Less liquid asset base. • Forthcoming event which could negatively affect fund liquidity.
Factors which may <u>decrease</u> the frequency of regular LST	• A highly liquid asset base. • Less frequent dealing of units in the fund.

Recommended employment of ad-hoc LST	• Ad-hoc LST should be undertaken as soon as practicable if a material risk to fund liquidity is identified by the manager and requires being addressed in a timely manner.

Questions to stakeholders

Q24 Do you agree with ESMA's Guideline that LST should be undertaken in all cases annually, but that it is recommended to undertake it at least quarterly, unless a different frequency can be justified? What is the range of frequency of LST applied on funds managed by the stakeholder(s) you represent?

Q25 Should ESMA provide more prescriptive Guidelines on the circumstances which can justify a more/less frequent employment of LST?

Q26 Do you agree that LST should be employed outside its scheduled frequency (ad-hoc) where justified by an emerging/imminent risk to fund liquidity?

11 Explanatory considerations: governance

Applicable Guidelines: 1, 2

Documented policies and procedures

68. In line with other risk management processes, the LST policy should be integrated in the overall approach and properly documented by the manager. The documented policy on LST should include the following (non-exhaustive list of items):

- Clear definition of the role of senior management in the process, including the governing body (Board of Directors/Trustees).
- Ownership for the LST policy as well as identifying the management function(s) responsible for the performance of LST
- The interaction between LST and other liquidity risk management procedures, including the manager's contingency plans, but also the interaction with the portfolio management function of the manager
- Requirement for regular internal reporting of LST results, and to whom
- Frequency of review of LST policy
- The circumstances requiring escalation, such as:
  - Results from LST
  - Escalation process when liquidity/limits thresholds are breached

Incorporation into a UCITS RMP and AIF RMP

69. In the case of UCITS, the RMP should include all relevant information about the LST policy of the manager. The following information should be at least included in the LST:

- The funds LST is undertaken on (scope)
- The types of the scenarios used
- The frequency of LST
- Frequency of review of the LST policy

70. Under AIFMD, an AIFM must have a documented risk management policy which identifies all the relevant risks to which the AIFs it manages are or may be exposed[31]. This document should include at least the equivalent information on LST to a UCITS RMP (per paragraph 69).

Validation and back-testing

71. LST models and assumptions underpinning them should be periodically reviewed and validated, the results documented, and models amended as appropriate. The frequency of review should be recorded in the LST policy.

Independence and conflicts of interest

72. LST should be performed under much the same conditions as other risk management operations that are subject to regulatory requirements on independence. In particular, there are applicable rules regarding risk management staff acting independently from other functions, such as portfolio management. Nevertheless, the governance structure should at the same time look into how the outcome of LST might be taken into consideration by the portfolio management function while managing the fund.

73. Where the manager delegates portfolio management tasks to a third party, particular attention should be paid to the independence requirement, in order to avoid reliance on or influence of the portfolio manager / investment adviser's own LST.

74. Organisational requirements include the requirement to effectively manage conflicts of interest arising from operationalising a LST. These include (but are not exclusive to):

- Allowing other parties, such as portfolio management staff (including portfolio managers from separate legal entities), to exercise undue influence over the execution of LST, including reliance on judgements relating to asset liquidity.
- Management of information regarding results of stress tests. If information is shared with a client, it should be ensured that this would not be inconsistent with the manager's obligation to treat all investors fairly in the way it discloses information regarding the fund.

<u>Questions to stakeholders</u>

Q27 What are your views on the governance requirements regarding LST?

Q28 Should more information be included in the UCITS RMP and AIF RMP?

Q29 Do you have any views on how managers which delegate portfolio management can undertake robust LST, independently of the portfolio manager, particularly when the manager does not face the market?

[31] Article 40, Commission Delegated Regulation (EU) No 231/2013

12 Explanatory considerations: depositaries

Applicable Guideline: 15

75. Under both UCITS and AIFMD depositaries are required to implement procedures to verify that the fund is acting in compliance with obligations under those Directives[32]. Depositaries should therefore set up appropriate verification procedures to check that managers have declared that an LST programme is in place.

76. One such type of procedure which may be utilised is checking that the LST programme is detailed in the UCITS' RMP, the AIF RMP may also be checked. These Guidelines are not prescriptive on how depositaries should comply with existing requirements to verify funds are being managed in accordance with applicable rules, (including regarding those on LST). Other verification procedures could and should be used as deemed appropriate by the depositary.

77. Where the depositary encounters an applicable risk management document which omits mention of an LST programme, it should take action as per any other evidence of a potential breach of rules by a manager (given fund LST is a regulatory requirement). Depending on the national regime, this may require a depositary to inform (or require a manager to inform) the applicable NCA of the manager's failure to comply with applicable rules.

78. For clarity, these Guidelines do not require a depositary to replicate the LST undertaken by a manager.

<u>Questions to stakeholders</u>

Q30 Do you agree with the proposed Guideline for depositaries on carrying out their duties regarding LST?

Q31 In your experience do depositaries review the UCITS RMP and AIF RMP as a matter of course?

[32] In the case of UCITS, under Article 3(2) of Commission Delegated Regulation (EU) 2016/438. In the case of AIFMD, under Article 95 of Commission Delegated Regulation (EU) 231/2013

13 Explanatory considerations: interaction with National Competent Authorities

79. Managers should be able to demonstrate to NCAs that appropriate and effective liquidity management policies and procedures are in place. Robust LST policies and procedures, being integrated in an overall risk management process and liquidity risk management program, are one element of this broader requirement.

80. Further, national legislation may require managers to notify their NCA of risks which are likely to crystallise. Managers may also be required by national requirements to provide information, such as liquidity stress test models and their results, upon request. This may be particularly the case during a period of large redemptions across the market.

Questions to stakeholders

Q32 Do you see merit in ESMA publishing further guidance on the reporting of results of liquidity stress tests? If so, in your view how should ESMA require that results be reported?

Annex 2 - Other relevant regulatory publications on this topic

Liquidity risk in funds and its potential effect on broader financial markets and financial stability has been the subject of a range of published analysis and Guidelines in recent years by regulators at a global, EU and national level.

The FSB scoped broader risks associated with asset management activities along with a set of policy recommendations in January 2017 [33]. Amongst other measures, the FSB recommended that "Authorities should require and/or provide Guidelines on stress testing at the level of individual open-ended funds to support liquidity risk management to mitigate financial stability risk. The requirements and/or Guidelines should address the need for stress testing and how it could be done"[34]. This, amongst other its policy recommendations relating to liquidity risk in collective investments, was operationalised by IOSCO. IOSCO subsequently reviewed and amended its Liquidity Risk Management Recommendations and produced a Good Practices document on Fund Liquidity and Risk Management, both in February 2018[35].

In the European Union, the European Systemic Risk Board produced a set of recommendations to address liquidity and leverage risk in investment funds, published in April 2018 (the ESRB recommendations)[36]. Included in those recommendations was that ESMA should produce guidance on Liquidity stress testing in UCITS and AIFs.

During this same period, National Competent Authorities (NCAs) in the EU have also published guidance on liquidity stress testing specifically, and liquidity risk management generally. The AMF [37] (FR), BaFin [38] (DE), and the FCA [39] (UK) have all produced guidance and other publications relevant to this topic. Guidance published by these NCAs generally builds-out existing requirements to conduct LST under UCITS and AIFMD, articulating the types of practices managers could undertake and principles to adhere to in order to fulfil their requirements under applicable EU rules.

[33] Financial Stability Board, Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities, January 2017 http://www.fsb.org/2017/01/policy-recommendations-to-address-structural-vulnerabilities-from-asset-management-activities/

[34] Financial Stability Board, Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities, January 2017, Recommendation 6

[35] https://www.iosco.org/library/pubdocs/pdf/IOSCOPD590.pdf and https://www.iosco.org/library/pubdocs/pdf/IOSCOPD591.pdf

[36] ESRB/2017/6, https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation180214_ESRB_2017_6.en.pdf?723f0fa99b1e8886e651e4950d2a55af

[37] https://www.amf-france.org/en_US/Publications/Guides/Professionnels?docId=workspace%3A%2F%2FSpacesStore%2F8e10f441-056c-4809-9881-36c23a292200

[38] https://www.bafin.de/SharedDocs/Downloads/EN/Anlage/dl_anlage_bericht_liquiditaetsstresstest_en.pdf?__blob=publicationFile&v=2

[39] Good practices: https://www.fca.org.uk/publications/documents/liquidity-management-investment-firms-good-practice, Review of liquidity in Real Estate Funds: https://www.fca.org.uk/publications/multi-firm-reviews/review-property-funds-and-liquidity-risks, Broader discussion paper on illiquid assets: https://www.fca.org.uk/publications/discussion-papers/illiquid-assets-open-ended-investment-funds